DRAFT

Environmental Impact Report

Desert Hot Springs General Plan Update and Zoning Amendment

SCH #2019080101

City of Desert Hot Springs

February 14, 2020

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County of Riverside

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1.0 – Introduction

1.1 CEQA and the Purpose of an EIR

The City of Desert Hot Springs (Lead Agency) has prepared an update of its General Plan (General Plan Update or GPU), to establish a vision and policies to shape and manage long term growth in the Desert Hot Springs "Planning Area." The Planning Area includes areas within the City boundaries of Desert Hot Springs as well as areas within the City's Sphere of Influence (SOI).

The adoption and implementation of a GPU is defined as a "project" and is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.). Accordingly, the City has prepared this environmental impact report (EIR) to assess the long range and cumulative environmental consequences that could result from adoption and implementation of the proposed General Plan Update. This report has been prepared in accordance with the CEQA Statutes and Guidelines and with the City of Desert Hot Spring's local rules and procedures for implementing CEQA. It was prepared by professional planning consultants under contract to the City of Desert Hot Springs. The City of Desert Hot Springs is the Lead Agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067, as amended), because it has primary discretionary authority with respect to adoption, amendment, and implementation of the proposed General Plan. The content of this document reflects the independent judgment of the City.

This body of state law known as "CEQA" was originally enacted in 1970 and has been amended since. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

The Legislature finds and declares as follows:

> (a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
>
> (b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
>
> (c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
>
> (d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the State take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
>
> (e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
>
> (f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

> (g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

> h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
>
> i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
>
> j) Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
>
> k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
>
> l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
>
> m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
>
> n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002, quoted below:

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 Purpose and Scope

The proposed General Plan Update is a long-range planning program to guide the growth and development of the Desert Hot Springs Planning Area through 2040. It is intended to communicate the City’s vision of its future and to establish a policy framework to govern decision-making concerning the physical development of the community, including assurances that the community at large will be supported by an adequate range of public services and infrastructure systems. The Desert Hot Springs GPU analyzed in this EIR has been tailored to address revised development and land use policy direction, reflect current vision regarding circulation and mobility improvements, and to comply with current State law.

The General Plan Update would not authorize any specific development project or other form of land use approval or any kind of public facilities or capital facilities expenditures or improvements. As such, a Program EIR is the appropriate type of document to identify the geographic extent of sensitive resources and hazards, along with existing and planned services and infrastructure support systems that occur in the Planning Area. Further, the Program EIR is described in Section 15168 of the CEQA Guidelines as the appropriate analytical framework to assess the cumulative environmental effects of the full plan, in a first tier level of analysis, to identify broad concerns and sets of impacts, and to define/develop regulatory standards and programmatic procedures that reduce impacts and help achieve environmental goals and objectives.

Later activities proposed pursuant to the goals and policies of the General Plan will be reviewed in light of this EIR and may focus on those site-specific and localized environmental issues that could not be examined in sufficient detail as part of this EIR. Advantages of a Program EIR include consideration of effects and alternatives that cannot practically be reviewed at the project-level, consideration of cumulative impacts that may not be apparent on a project-by-project basis, the ability to enact citywide mitigation measures, and subsequent reduction in paperwork.

Organization of the Program EIR

The EIR is divided into three volumes. Volume 1 contains the primary analysis of potential environmental impacts discussed in the following nine sections:

Section 1.0	Introduction
Section 2.0	Executive Summary: A brief discussion of the project and summary of project impacts and mitigation measures
Section 3.0	Project Description: Provides detailed description of the proposed Project.
Section 4.0	Environmental Impact Analysis: Evaluates project impacts and identifies mitigation measures designed to reduce significant impacts, where applicable.
Section 5.0	Alternatives: Provides an analysis of the different alternatives to the proposed project.
Section 6.0	CEQA Conclusions: Provides an analysis of growth-inducing impacts, significant unavoiable environmental impacts, and irreversible environmental change.
Section 7.0	Preparation Team: Lists the preparers of the document.

The appendices include:

- Appendix A: Notice of Preparation (NOP)
- Appendix B: NOP Distribution List & Comment Letters
- Appendix C: City of Desert Hot Springs General Plan Update Policies
- Appendix D: Air Quality and Greenhouse Gas Analysis

- Appendix E: Noise Study
- Appendix F: Traffic Impact Analysis & Memo

In compliance with Public Resources Code Section 21081.6, a mitigation monitoring reporting program (MMRP) will be prepared as a separately bound document that will be adopted in conjunction with the certification of the Final EIR. The MMRP, responses to public comments on the Draft EIR, any revisions to the Draft EIR will be identified in the Final EIR.

Approach to EIR Analysis
The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the General Plan Update. Each environmental issue is analyzed in a similar manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed General Plan Update's potential impact to the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines. The impact analysis section examines the broad, long-term environmental effects resulting from implementation of the goals and policies contained in each of the updated General Plan elements. The assessment of impacts focuses on how the impact in question could occur and whether some aspect of the proposed Plan would trigger or somehow induce those sets of conditions, due to the unique effects of the proposed policies, rather than a generalized consideration of growth as the primary force behind potential impacts. The presence of sensitive environmental resources, hazards in specific areas, and the broad implications of the General Plan throughout the Planning Area are considered in the determination of impact significance. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed planning policies, mitigation measures are specified.

1.3 Scoping and Public Review

Notice of Preparation
To define the scope of the investigation of the Program EIR, the City of Desert Hot Springs distributed a Notice of Preparation (NOP) to local, county, state, and federal agencies along with interested private organizations and individuals. The NOP was delivered to the State Clearinghouse on August 6, 2019. The purpose of the NOP was to identify agency and public concerns regarding potential impacts of the proposed project, and to request suggestions concerning ways to avoid significant impacts (Section 15082, CEQA Guidelines). The NOP is included in Appendix A. Copies of written comments received during the 30-day public review period for the NOP are included in Appendix B of this EIR.

On August 13, 2019, the City conducted a scoping meeting to solicit oral comments on the NOP. The scoping comments addressed in this Program EIR are summarized in Table 1.1 (Summary of Scoping Meeting Comments):

Table 1-1
Summary of Comments on the NOP

Commenting Agency/Person	Summary of Comment	Section(s) where Addressed
Southern California Association of Governments (SCAG)	Describes importance of environmental documentation being consistent with the 2016 Regional Transportation Plan / Sustainable Community Strategies (RTP/SCS) goals and for projects to align with RTP/SCS policies.	Land Use and Traffic / Transportation
South Coast Air Quality Management District (SCAQMD)	The letter provides input as to how the air quality and greenhouse gas analyses should be completed, consistent with SCAQMD guidelines. The letter also provides information on potential mitigation measures.	Air Quality and Greenhouse Gas
Wintek Energy	The commenter notes a potential non-conforming use, under the General Plan Update, as it relates to a natural gas peaking power plant, located within the City's Sphere of Influence	This comment has been considered in the General Plan Update,
Native American Heritage Commission	The commenter recommends consultation with California Native American Tribes, consistent with AB 52 and SB 18. *Note: The City is completing consultation with local tribes.*	Cultural Resources and Tribal Cultural Resources
California Department of Fish and Wildlife	The comment letter provides guidelines as to how biological resources should be analyzed in the EIR. The letter provides input on habitat types to consider, guidelines for a general biological inventory and consideration for rare, threatened and endangered species. The letter also provided information on potential mitigation measures for the programmatic EIR.	Biological Resources
Diamond Generating Corporation	The comment letter notes a potential land use designation discrepancy as it relates to two electrical utility facilities located north of Dillon Road. The comment also contains a suggestion that there should be multiple industrial land use designations rather than one. The letter notes the importance for considering areas where high valued wind resources are available. Finally, the letter recommends the SOI land use designations should be the same as those under the County of Riverside's unincorporated land use designations for the same areas.	This comment has been considered in the General Plan Update,

Table 1.2
Summary of Scoping Meeting Comments

Commenting Agency/Person	Summary of Comment
Catherine Barber	Concerned about emergency access and evacuation during major flooding event
Brent Fredenburg	Public safety education program needed
Chris Lucker	Add heliport for safety
Frank Elmore	Add desert health care district and related health facilities
Carina Romero	Impacts related to over development of housing and traffic impacts

Public Review of Draft EIR
Comments from all agencies and individuals are invited regarding the information contained in the Draft Program EIR. Such comments should explain any perceived deficiencies in the assessment of impacts, or provide the information that is purportedly lacking in the Draft Program EIR or indicate where the information may be found.

All comments on the Draft Program EIR are to be submitted to:

Rebecca Deming, Community Development Director
City of Desert Hot Springs
65950 Pierson Blvd.
Desert Hot Springs, California 92240

Following the 45-day period of circulation and public review of the Draft Program EIR, all comments and the City's responses to the comments will be incorporated into a Final Program EIR prior to certification of the document by the City of Desert Hot Springs.

Availability of EIR Materials
All materials related to the preparation of this Program EIR, including information incorporated by reference, are available for public review. The Notice of Preparation and the Draft Program EIR are posted on the City's website:

https://www.cityofdhs.org/public-hearing-notices

To request an appointment to review these materials, please contact:

Rebecca Deming, Community Development Director
City of Desert Hot Springs
65950 Pierson Blvd.
Desert Hot Springs, California 92240

1.4 Citation

Preparation of this Program EIR and the General Plan Update rely on information from many sources, including the appendix materials previously listed and numerous other references. Pursuant to Section 15148 of the State CEQA Guidelines, citations from the appendix materials and other sources are provided throughout the EIR. Citations are numbered sequentially and inclusive to each environmental impact topic (Sections 4.1 through 4.20). References are located at the end of each section of this DEIR.

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2.0 – Executive Summary

2.1 Project Summary

This section provides a summary description of the City of Desert Hot Springs' 2040 General Plan Update EIR, a list of associated environmental issues to be resolved, a summary identification of significant impacts and mitigation measures associated with the 2040 General Plan, and a summary identification of possible alternatives to the 2040 General Plan (pursuant to CEQA Guidelines Section 15123, Summary).

This summary should not be relied upon for a thorough understanding of the details of the project, its individual impacts, and related mitigation needs. Please refer to sections 4.1-4.20 for a description of the project.

2.2 Project Location

The City of Desert Hot Springs is in the northwestern portion of the Coachella Valley, north of the City of Palm Springs and south of the unincorporated community of Morongo Valley. The City is a few miles south of the Riverside County/San Bernardino County boundary. The City is located near the interchange of the I-10 freeway and SR-62 highway.

The Planning Area consists of the corporate boundaries of the City of Desert Hot Springs and its Sphere of Influence. The City's corporate boundaries total 30.5 square miles and its Sphere of Influence (unincorporated Riverside County) totals 28.8 square miles for a total Planning Area of 59.3 square miles. The regional and local context of the Planning Area is identified on Exhibits 2-1 Vicinity Map, and 3-2 Planning Area.

Environmental Setting
Desert Hot Springs is in a desert landscape within the Coachella Valley with views of surrounding mountain ranges, which can be snow-capped during the winter months. Sitting approximately 1,000 feet above the rest of the valley, the City overlooks Palm Springs to the south and the rest of the Coachella Valley to the southeast. The extensive alluvial plains created by drainage from these mountains form the elevated valley. Both Mission Creek and Big Morongo Wash drainages traverse though the City diagonally from northwest to southeast and connect to the Whitewater River just south of Interstate 10. The City adjoins the Sand to Snow National Monument and Joshua Tree National Park. The climate in Desert Hot Springs is cooler than the rest of the valley, and the air is less polluted because of the City's elevated position.

Desert Hot Springs currently consists predominantly of low-density residential development, several commercial centers at key intersections, a pedestrian scale downtown, and light industrial uses on the periphery. Much of the City and Planning Area is currently undeveloped; there are areas on the periphery of the city where newer housing developments have been started.

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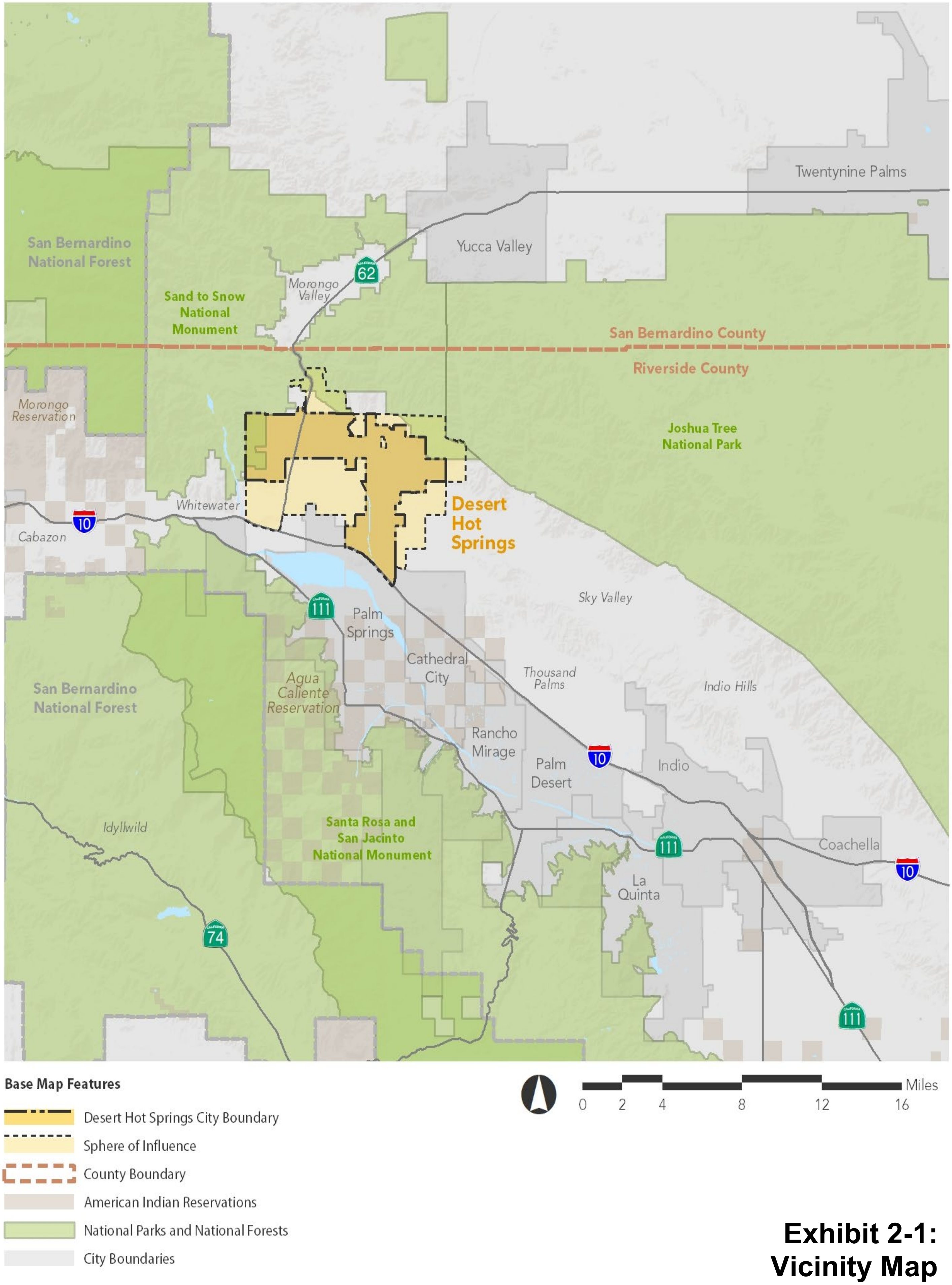

Exhibit 2-1: Vicinity Map

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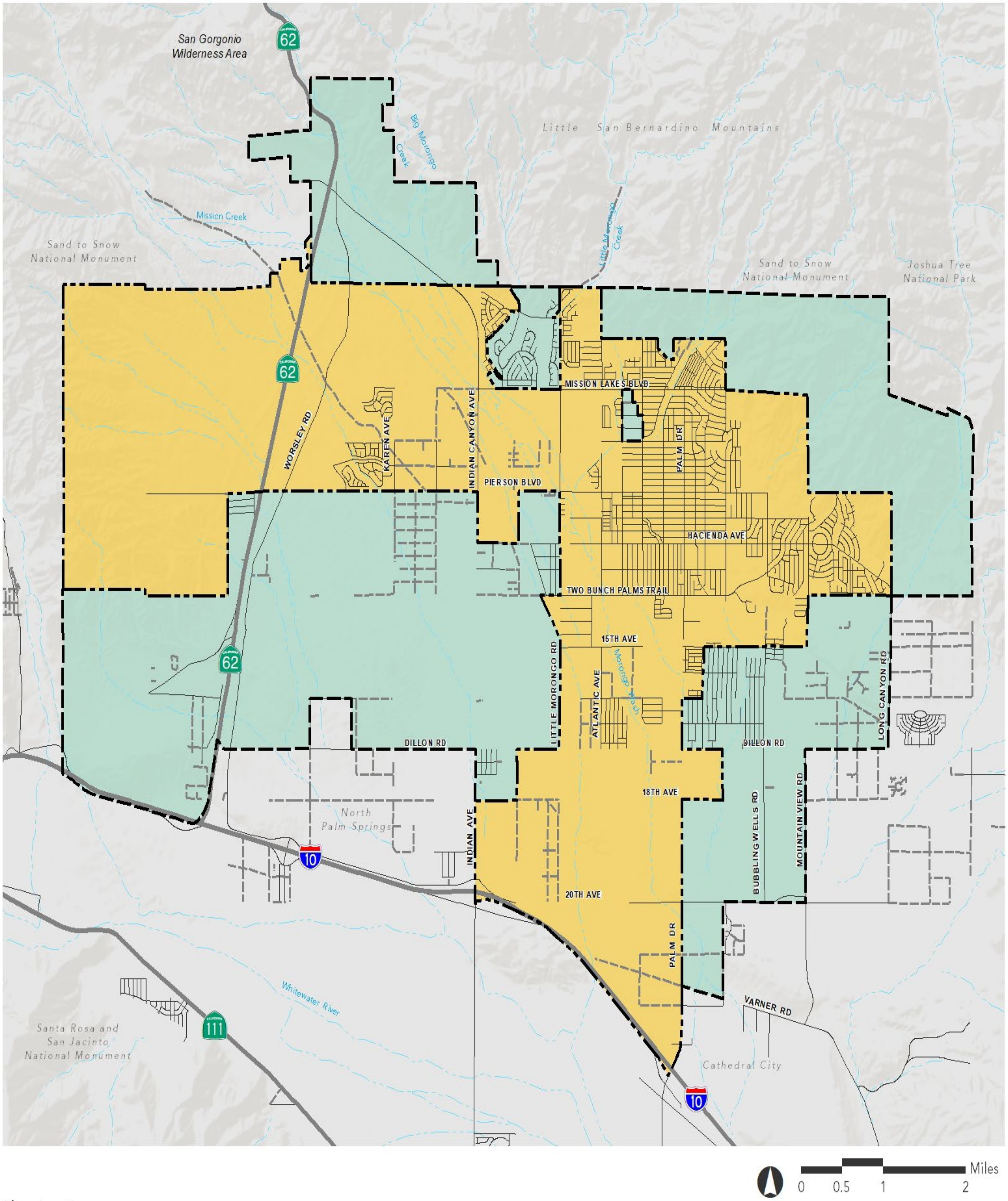

Planning Area

Desert Hot Springs City Boundary

Desert Hot Springs Sphere of Influence

Exhibit 2-2: Planning Area

Source: City of Desert Hot Springs and Riverside County.

Date: August 2019.

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The existing land uses are divided into six categories: residential, commercial, industrial, public and institutional, open space, and undeveloped (vacant) lands. There are an estimated 11,562 dwelling units within the City limits and 7,538 dwelling units in the sphere of influence, for a total 19,100 dwellings within the Planning Area.

Project Objectives

The Desert Hot Springs General Plan Update (GPU) serves as the blueprint for the City's future growth and development. As such, the General Plan must contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The General Plan Update establishes the following objectives for the long-term growth and enhancement of the community:

1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.
3) Expand and diversify housing opportunities throughout the community.
4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
6) Protect the natural habitat, open spaces, and desert washes within the community.
7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
8) Expand park facilities and recreational programming opportunities throughout the community.
9) Promote the community's role as a health and wellness destination.

Proposed 2040 General Plan

The City of Desert Hot Springs is updating its General Plan consistent with State requirements; the Plan for development is through the year 2040. The existing plan was adopted in 2000. The project analyzed in this program Environmental Impact Report (EIR) is the adoption and long-term implementation of the GPU and subsequent zoning code amendment (consistent with the Land Use and Community Design Element). The GPU includes the area within the City boundaries and the Sphere of Influence.

The updated General Plan serves as a policy guide for determining the appropriate physical development, community services, and character of the entire Planning Area. The GPU includes the following Elements which are discussed in more detail below:

- Land Use and Community Design Element
- Housing Element
- Economic Development Element

- Mobility and Infrastructure Element
- Open Space, Natural, and Cultural Resources Element
- Health and Wellness Element
- Safety and Noise Element

Land Use and Community Design Element
The Land Use and Community Design Element provides the framework for establishing the patterns of development activity and land uses that support the visual character and built physical environment of a desert community. This Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. The Land Use and Community Design Element includes a Land Use Plan that establishes 12 land use designations intended to provide a rational and orderly approach to land use development.

Housing Element
This Housing Element provides a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. The Housing Element specifically intends to: 1) provide direction for future planning programs; 2) establish community goals and policies relative to housing; 3) establish and identify programs to implement and attain the community's goals and policies, taking into consideration the feasibility of those programs, and act as a meaningful guide to decision-makers considering housing-related issues.

Economic Development Element
The Economic Development Element guides the City in expanding, maintaining, and enhancing the local economy that provide jobs, attract and retain businesses, support diverse and vibrant commercial areas, and provide sufficient revenue to local government. The Economic Development Element provides the central organizational unit to establish the goals and policies focused specifically on economic development.

Mobility and Infrastructure Element
The Mobility and Infrastructure Element focuses on mobility and transportation, addressing complete streets, pedestrian and bicycle networks, roadway design, transit access, and the roadway network. The infrastructure component addresses utilities related to water and wastewater, drainage and flood control, energy utilities, and solid waste and recycling.

Open Space and Natural Resources Element
The Open Space and Natural Resources Element focuses on preserving and maintaining the natural resources and qualities that distinguish Desert Hot Springs as a gateway to natural park and monuments. The Open Space Element sets forth goals and policies that address preservation of open space and natural habitat, natural resource conservation, preservation of scenic resources, protecting water resources, managing energy resources, reducing greenhouse gas emissions, protecting historic preservation and cultural resources, and promoting sustainable building practices.

Health and Wellness Element
The Health and Wellness Element consists of three sections with various goals and policies: 1) Health and Wellness, which addresses health and human services, homelessness, access to healthy foods, and environmental justice; 2) Parks, Recreation, and Trails addresses park

facilities, recreational programming, and trails connectivity; 3) Life-Long Learning addresses schools, library services, and other learning services.

Safety and Noise Element
The Safety and Noise Element addresses hazards and safety concerns that could adversely affect property and threaten lives in the City, including noise. The Safety and Noise Element is categorized into four topic areas: public safety, resilience and emergency preparedness, natural hazards, and noise. Noise identifies noise sources, establishes acceptable levels of noise, projects future noise conditions, and identifies abatement strategies.

General Plan Projected Growth
The GPU is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 2-1 compares 2018 and 2040 land uses for the City of Desert Hot Springs, the Sphere of Influence and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated at approximately 53,664 dwelling units, 136,402 residents, 20,349,704 building square feet of non-residential uses, and 20,531 jobs. This table shows existing conditions as of 2018 and the projected growth based on the proposed land use plan for a future horizon year of 2040.

Table 2-1:
General Plan Update: Comparison of 2018 and 2040

Area		Dwelling Units			Population	Non-Residential Building Sq. Ft.[3]	Employees	Hotel/ Motel Rooms	Students
		SF[1]	MF[2]	Total					
City	2018	8,358	3,204	11,562	29,390	2,655,016	4,162	755	6,326
	2040	22,214	12,594	34,808	88,476	13,140,605	14,611	1,652	12,900
	Change	+13,856	+9,390	+23,246	+59,086	+10,485,589	+10,449	+897	+6,574
SOI	2018	7,292	246	7,538	19,160	559,250	1,020	--	763
	2040	18,025	831	18,856	47,926	7,209,099	5,920	--	7,100
	Change	+10,733	+585	+11,318	+28,766	+6,649,849	+4,900	--	+6,337
Planning Area	2018	15,650	3,450	19,100	48,550	3,214,266	5,182	755	7,089
	2040	40,239	13,425	53,664	136,402	20,349,704	20,531	1,652	20,000
	Change	+24,589	+9,975	+34,564	+87,852	+17,135,438	+15,349	+897	+12,911

[1] Single Family
[2] Multi-Family

2.3 Environmental Impacts

Based on the preliminary environmental analysis conducted through the review of the existing General Plan, the City determined that a comprehensive review of all of the Appendix G CEQA topical areas was appropriate. The following topics were analyzed as a part of this EIR:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

This Program EIR examines each of these issue areas in separate sections in addition to other required topics specified in the State CEQA Guidelines. Table 2-2 summarizes the significant and potentially significant environmental impacts associated with the project and lists the mitigation measures, where appropriate to reduce or avoid impacts. The first column summarizes the impact, as identified in the various CEQA topical sections. The second column shows the level of impact before mitigation; it should be noted that the table does not include impacts that were identified as less than significant or no impact. The third column shows the mitigation measures while the final column shows the level of significance after mitigation is incorporated.

Table 2-2
Environmental Impact Summary

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
Air Quality			
A. Conflict with or obstruct implementation of the applicable air quality plan? Since potential growth under the GPU would be inconsistent with current AQMP projections and could lead to construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed Project could increase the frequency and/or severity of air quality violations in the Coachella Valley or otherwise impede attainment of air quality standards, particularly national and state O_3 and PM_{10} standards. This is considered a potentially significant impact. (Mitigation measures AQ-2A and AQ-2B, and Greenhouse Gas measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D)	Significant for construction and operational emissions	**AQ-2A**: **“Super Compliant” Architectural Coatings:** The City shall require development projects to: 1) Submit evidence, such as emissions estimates, coating use estimates and manufacturers specifications for VOC content, or other evidence that indicates VOC emissions during architectural coating activities would not exceed SCAQMD CEQA significance thresholds. 2) Prepare a Coating Restriction Plan (CRP), consistent with SCAQMD guidelines. The project applicant/developer shall include in any construction contracts and/or subcontracts a requirement that Project contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in Project construction meet the SCAQMD “super compliant” coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low-pressure spray guns during coating applications to reduce coating waste.	Less than Significant for Construction Emissions. Significant and Unavoidable for Operational Emissions.

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		AQ-2B: Tier IV Construction Equipment: To reduce construction equipment emissions of NOx, diesel particulate matter, and other pollutants, the City shall require development projects to: 1) Use electric-powered and liquefied or compressed natural gas equipment instead of diesel-powered equipment to the maximum extent feasible. 2) All construction equipment with a rated power-output of 50 horsepower or greater shall meet U.S. EPA and CARB Tier IV Final Emission Standards for NOx. This may be achieved via the use of equipment with engines that have been certified to meet Tier IV emission standards, or through the use of equipment that has been retrofitted with a CARB-verified emission control strategy (e.g., selective catalytic reduction) capable of reducing exhaust NOx emission to levels that meet Tier IV standards. 3) The City may grant an exemption from these requirements in the event an applicant can factually document that the specific equipment needed to construct a project is not reasonably available (e.g., the specific Tier IV equipment needed is not available within Riverside County within the scheduled construction period).	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		Additional implementation of the following Greenhouse Gas mitigation measures will help improve Air Quality impacts: GHG-1A, GHG-1B, GHG-1C, and GHG-1D (under Impact GHG-1).	
B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? As shown in Section 4.3 Air Quality Table 4.3-9, the worst-case maximum daily construction emissions associated with Project implementation could have the potential for ROG and NOx emissions (ozone precursors) to exceed SCAQMD regional thresholds. This is considered a potentially significant impact. (Mitigation measures AQ-2A and AQ-2B) Potential daily operational emissions of ROG, NOx, CO, PM_{10}, and $PM_{2.5}$ associated with the General Plan Update could exceed the SCAQMD's regional CEQA thresholds. This is considered a potentially significant impact. (Mitigation measures AQ-2A and AQ-2B, and Greenhouse Gas measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D)	Significant for construction and operational emissions	See Mitigation Measures AQ-2A and AQ-2B Above and Mitigation Measures GHG-1 Through GHG-1D Below.	
E. Would the project cause substantial adverse cumulative impacts with respect to air quality? Since potential growth under the General Plan Update would be inconsistent with current AQMP projections and could lead	Significant for construction and operational emissions	See Mitigation Measures AQ-2A and AQ-2B Above and Mitigation Measures GHG-1 Through GHG-1D Below.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
to construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed Project could increase the frequency and/or severity of air quality violations in the Coachella Valley or otherwise impede attainment of air quality standards, particularly national and state O_3 and PM_{10} standards. This is considered a potentially significant impact. (Mitigation measures AQ-2A and AQ-2B, and Greenhouse Gas measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D)			
Biological Resources			
A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. All development projects on lands that may contain suitable habitat for special status plant and wildlife species are subject to the provisions of the federal, state, and local regulations outlined in Biological Resources as well as the proposed general plan policies. This is considered potentially significant. (Mitigations BIO-1 through BIO-3)	Significant	**BIO-1: Biological Resource Assessment:** Consistent with GPU Policy OS-1.5: Biological Resources Assessment, resource assessments will be prepared for all discretionary development projects that contain undeveloped lands subject to CEQA. The biological resource assessment will catalog all habitat types with the Project area (and offsite impact areas), based on alliances and/or associations defined in The Manual of California Vegetation, second edition. The assessment will include an inventory of all special-status species (USFWS- and CDFW-listed threatened and endangered species, California Species of Special Concern, California Fully Protected Species, CRPR-listed species, and CVMSHCP Covered Species) with the potential to occur within each onsite habitat type. The assessment will address seasonal variation in use of the Planning Area and not be limited to resident species. It will include a discussion of both direct and indirect impacts to	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		wildlife movement and connectivity, as well as a full accounting of all mitigation/conservation lands within and adjacent to the Project area. The biological resource assessment will examine both onsite and offsite impact areas and will include a discussion of potential direct and indirect impacts from lighting, noise, human activity, defensible space, and exotic/invasive species. Defensible spaces should be accounted for within proposed development land use designated areas, and not transferred to adjacent open space or conservations lands.	
		BIO-2: Special Status Plant and Wildlife Protection: Consistent with GPU Policy OS-1.2. Threatened and Endangered Species, protocol focused surveys for sensitive plant and wildlife species will be carried out by a qualified biologist when suitable habitat for any such species is present on a proposed project site and has a potential for impact. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought. Project permitting and approval requires compliance USFWS, CDFW, and CVMSHCP regulations for any impacts to special status plant or animal species.	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		BIO-3: Nesting Bird Avoidance: If vegetation removal is scheduled during nesting season (February 1 - September 1), focused surveys for active nests shall be conducted by a qualified biologist no more than three days prior to the beginning of project-related activities (e.g., excavation, grading and vegetation removal). Surveys shall be conducted in proposed work areas, staging and storage areas, and soil, equipment, and material stockpile areas. For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in non-developed areas and where access is feasible). For larger raptors, such as those from the genus Buteo, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of active nests and shall concentrate on areas of suitable habitat. If nests are encountered during any preconstruction survey, a qualified biologist shall determine if it is feasible for construction to continue as planned without impacting the success of the nest, depending on conditions specific to each nest and the relative location and rate of construction activities. Any active nest(s) within a Project Site shall be monitored by a qualified biologist during construction if work occurs directly adjacent to the pre-determined nest avoidance buffer. If the qualified biologist determines construction activities have potential to adversely affect a nest, construction activities will be halted within	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		the minimum nest avoidance buffer, depending on species and location. Construction activities within the nest avoidance buffer may proceed after a qualified biologist determines the nest is no longer active due to natural causes.	
B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. A variety of riparian habitats and other sensitive natural communities have the potential to occur within Planning Area. Implementation of the proposed GPU could impact these habitats. Although the majority of the sensitive communities that have the potential or are known to occur in the Planning Area occur in areas where no major development is planned, projects associated with the GPU could result in adverse impacts to sensitive communities. This is a potentially significant impact. (Mitigation BIO-4)	Significant	**BIO-4: Habitat Revegetation, Restoration, and/or Conservation:** If riparian habitat or other sensitive natural communities are impacted by project-related activities, a habitat restoration and revegetation plan will be developed pursuant to U.S. Army Corps of Engineers and/or California Department Fish & Wildlife guidelines. Habitat restoration and revegetation plans will include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is stablished, self-sustaining, and	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		capable of surviving drought. For Projects with CVMSHCP Conservation Areas, habitat revegetation, restoration, and conservation will be vetted via coordination with the appropriate resource agencies and the Coachella Valley Conservation Commission (CVCC) through the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) and Joint Project Review (JPR) processes to ensure the Project aligns with the goals and policies of the CVMSHCP (section 6.6.1.1 and 6.6.1.2).	
C. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. State and federally protected wetlands are present within the Planning Area. Implementation of the proposed GPU could result in significant impacts to these features. Project-related impacts will be assessed on drainage patterns and water quality within, upstream, and downstream of the Project site. A wetland delineation report will be prepared to define the limits of USACE, CDFW, and/or RWQCB jurisdiction consistent with existing policies and regulations. This impact is potentially significant. (Mitigations BIO-3 and BIO-4)	Significant	See Mitigation Measures BIO-3 and BIO-4 Above.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Impedance of migratory routes or wildlife corridors can have a substantial impact on a species. Migratory routes are important for foraging and breeding; the hindrance of migration can affect these important activities in a species. The Planning Area includes large areas of open space, some of which are defined as biological corridors and linkages by the CVMSHCP and/or Natural Landscape Blocks. Implementation of the proposed GPU could result in significant impacts. (Mitigations BIO-1 and BIO-2)	Significant	See Mitigation Measures BIO-1 and BIO-2 Above.	
G. Would the project cause substantial adverse cumulative impacts with respect to biological resources? Development with the Planning Area along with additional development in nearby areas may lead to impacts to biological resources. Policy OS-1.5: Biological Resources Assessment requires a biological resources assessment for development proposal or infrastructure project located on undeveloped/undisturbed land. The biological resource assessment will include a cumulative effects analysis developed as described under CEQA Guidelines §15130. It will analyze the cumulative effects of the Project's land use designations, policies and	Significant	See Mitigation Measures BIO-1 Through BIO-4 Above.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
programs on the environment, including an assessment of all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. This is a potentially significant impact. (Mitigations BIO-1 through BIO-4)			
Greenhouse Gases			
A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? GPU implementation would result in construction and operational activities that would generate GHG emissions. The GHG emissions generated by the growth envisioned under the GPU would exceed SCAQMD thresholds and result in a significant and unavoidable impact even with the inclusion of feasible mitigation measures. The GPU's 2040 growth projection would result in GHG emissions that exceed the adjusted SCAQMD derived plan-level efficiency metric. This is considered a potentially significant impact. (Mitigations GHG-1A through GHG-1E)	Potentially Significant	**GHG-1A:** The 2019 CalGreen Code contains several voluntary measures that are not formally required. Within one year of adoption of the General Plan Update the City shall adopt an ordinance that incorporates, requires and makes mandatory certain CalGreen Code voluntary measures as described below. 1) Require new residential tentative tract maps that would allow 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.1 of the CalGreen Code, and that each dwelling be equipped with a vehicle charging station that has a similar or better functionality than a Level 2 charging station. 2) Require new multifamily projects with 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.2 of the CalGreen Code, and that each one of the parking spaces that has such electric vehicle	Significant and Unavoidable

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		infrastructure be equipped with vehicle charging stations that have a similar to better functionality than a Level 2 charging station. 3) Require new non-residential development projects to provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles pursuant to the Tier 2 requirements of Table A5.106.5.1.2 of the CalGreen Code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen Code. 4) Require new non-residential development projects to provide electric vehicle charging spaces with electric vehicle infrastructure in compliance with Table A5.106.5.3.2 of the California Green Code and be equipped with vehicle charging stations that have similar or better functionality than a Level 2 charging station. Such spaces shall be marked in compliance with Section A5.106.5.3.3 of the CalGreen Code. **GHG-1B:** The City shall, if feasible, establish a municipally-operated and -controlled electricity power provider (Community Choice Aggregation (CCA)) for the City of Desert Hot Springs within four years of adoption of the General Plan Update, or otherwise as expeditiously as possible given the City's resources. The overarching purpose and intent of the CCA is to provide 100% renewable electricity to all customers in Desert Hot Springs. The CCA will:	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Offer electricity at rates that are competitive with those provided by Southern California Edison (SCE). • Offer, at minimum, two options for customers: - The first, default option shall offer electricity that contains a renewable mix exceeding that provided by SCE. - The second option shall offer electricity that comes from 100% renewable sources. • Upon its inception, automatically enroll all public and private accounts in the city into the CCA program. All residential and non-residential customers shall be enrolled in the first, default option (i.e., the program that has a renewable mix that exceeds that provided by SCE). **GHG-1C:** Within four years of the adoption of the General Plan, The City shall consider and evaluate the feasibility of adopting an ordinance that amends Chapter 15.08 of the City's Municipal Code, so that all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective, the City shall adopt a ZNE ordinance as expeditiously as possible given City resources.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		As defined by the California Energy Commission (CEC) in its 2015 Integrated Energy Policy Report, ZNE standards require the value of the net energy produced by project renewable energy resources equal the value of the energy consumed annually by the project, using the CEC's Time Dependent Valuation. **GHG-1D:** The City shall prepare and adopt a Multimodal Mobility Plan within four years of adoption of the General Plan Update, or otherwise as expeditiously as possible given City resources. The Multimodal Mobility Plan shall, at a minimum: 1) Identify the City's plan for improving and expanding transit amenities and non-vehicular (e.g., bicycle and pedestrian) infrastructure in the City. 2) Specify measures or a group of measures that, if implemented on a project-by-project basis, would reduce the number of single-occupancy vehicle trips and fossil fuel powered vehicles operating on roadways within Desert Hot Springs to a percentage that is consistent with reduction in per capita passenger vehicle GHG reduction targets established by CARB for the SCAG region under SB 375.During development of the Multimodal Mobility Plan, the City shall:	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		a. Consult with public transit system operators (e.g., Sunline Transportation Agency, Native American tribes, and others, as applicable) to identify potential routes, infrastructure, and service locations capable of serving new development identified in the General Plan. b. Revisit the way the City addresses transportation impacts fees. In addition to having fixed fees by development type, adopt a traffic mitigation fee that ensures new development pays its fair share toward roadway and non-vehicular infrastructure improvements. c. Provide the framework for updating the City's existing Transportation Demand Management (TDM) requirements contained in Chapter 10.56 of the City's Municipal Code so it applies to additional, residential and non-residential development in the City. The revised TDM program shall specify what percent of vehicle miles traveled must be reduced by the land use, compared to default rates. 3) Establish a mechanism to monitor progress toward achieving the goals set forth in the Multimodal Mobility Plan.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		GHG-1E: Consistent with General Plan Implementation Policy C-3, the City shall prepare and adopt an updated Climate Action Plan within five years of adoption of the General Plan Update, or otherwise as expeditiously as possible given City resources. At a minimum, the Climate Action Plan shall: 1) Establish a community-wide greenhouse gas emissions inventory for a single, historic calendar year (e.g., Year 2010, consistent with the City's current Climate Action Plan, adopted in 2013). 2) Quantify greenhouse gas emissions, both existing and proposed over a specified time period. The time period forecasted shall be no less than the Year 2040. Additional, forecasted years (e.g., 2030, 2035, etc.) may be included. 3) Identify annual, community-wide greenhouse gas emission reduction targets (i.e., in MTCO2e) and/or efficiency targets (i.e., in MTCO2e per service population and/or capita) that align the City's emissions with legislatively adopted State-wide greenhouse gas reduction targets (e.g., AB 32 and SB 32) for a specified calendar year. For a calendar year beyond that which has a legislatively adopted greenhouse gas reduction target, the greenhouse gas emissions reduction	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		goal for 2050 outlined in EO S-3-05 shall be used as a future benchmark. The identified annual, community-wide greenhouse gas emissions target for the City may be an interpolated value based on legislatively adopted State-wide greenhouse gas reduction targets and those issued by Executive Order. 4) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified annual, community-wide greenhouse gas emission reduction targets and/or efficiency targets. The Climate Action Plan shall, at a minimum, specifically consider the following measures as well as those contained in the Multimodal Mobility Plan. If the following measures are not adopted, the Climate Action Plan shall clearly discuss why these measures were found to be infeasible. a. Develop a detailed Waste Reduction Plan that identifies the City's strategy for diverting waste from landfills. The Waste Reduction Plan shall target achieving zero waste by 2040. b. Identify the City's strategy for using recycled water in the City, once it becomes available from the Mission Springs Water District. Specifically	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		investigate the feasibility of using such water at non-residential land uses, such as those used for cannabis cultivation. The strategy developed for the City shall be done in consultation with the Mission Springs Water District. c. Establish a provision that, prior to issuing any building or grading permits, the City shall confirm project applicants and/or their designees fully mitigate the greenhouse gas emissions associated with the construction, operation, and vegetation change associated with the proposed project. Compliance options could include: 1) directly undertaking funding activities that reduce or sequester GHG emissions and/or 2) obtaining and retiring Carbon Offsets through an Approved Registry. 5) Establish a mechanism to monitor the plan's progress toward achieving its community-wide greenhouse gas emission reduction targets and/or efficiency targets and require amendment if the Climate Action Plan is not achieving specified levels. 6) Be adopted in a public process following environmental review.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases? The GPU's unmitigated GHG emissions would: 1) not be consistent with the CARB Scoping Plan's interpolated per capita GHG efficiency metric, 2) would not meet the SCAG 2016 RTP/SCS goal of reducing per capita passenger vehicle greenhouse gas emissions, based on the emissions modeling conducted, and 3) would be inconsistent with the City's CAP. Thus, the GPU would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emission of greenhouse gases. (Mitigations GHG-1A through GHG-1E)	Potentially Significant	See Mitigation Measures GHG-1A through GHG-1E Above.	Significant and Unavoidable
C. Would the project cause substantial adverse cumulative impacts with respect to greenhouse gases? Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2 (A and B), the Project would result in GHG emissions that exceed the significance thresholds applied in this EIR and conflict with the 2017 Climate Change Scoping Plan and City CAP. This is	Significant and Unavoidable	See Mitigation Measures GHG-1A through GHG-1E Above.	Significant and Unavoidable

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
significant and unavoidable. (Mitigations GHG-1A through GHG-1E)			
Hydrology and Water Quality			
B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? The existing urban water management plans for MSWD and CVWD do not take into account the proposed development associated with implementation of the GPU. Mitigation UTL-1 would limit growth to the existing water supply as identified in the GPU to the amount of water supply in the MSWD and CVWD Urban Water Management Plans are updated. (Mitigation ULT-1)	Significant	See Mitigation Measure ULT-1 Below.	Less than Significant
E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? The existing urban water management plans for MSWD and CVWD do not take into account the proposed development associated with implementation of the GPU. Mitigation UTL-1 would require that project applicants, as a condition of project approval, obtain written confirmation from MSWD and CVWD that there is adequate water to serve any proposed project until the time that the Urban Water Management Plans are updated to account for water demands associated with implementation of the GPU. (Mitigation ULT-1)	Significant	See Mitigation Measure ULT-1 Below.	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
F. Would the project cause substantial adverse cumulative impacts with respect to hydrology and water quality? Project implementation would result in new development and new impervious surfaces being constructed within the Planning Area. New development would be required to implement BMPs to treat storm water runoff, reducing the potential for a cumulative impact with respect to water quality. Mitigation Measure UTL-1 would ensure that there is adequate water to serve new development and that the Project would not substantially decrease groundwater supplies. (Mitigation ULT-1)	Significant	See Mitigation Measure ULT-1 Below.	Less than Significant
Noise			
A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Project implementation would involve construction that would result in temporary noise generation, primarily from the use of heavy-duty construction equipment. Potential temporary construction-related noise increases of more than 10 dBA above ambient conditions during permissible construction hours would be a potentially significant impact. (Mitigation NOI-1)	Significant with respect to temporary (construction noise) and permanent ambient traffic noise.	**NOI-1: Assess and Minimize Temporary Construction Noise Levels** To ensure that future development projects implement appropriate construction noise controls, the City shall require development projects that are subject to discretionary review and that are located near (i.e., within 200 feet) of noise-sensitive land uses (e.g., residential, school, or long term medical care facilities) to assess potential construction noise levels and minimize substantial adverse impacts by implementing feasible construction noise control measures that reduce construction noise levels at sensitive receptor locations. Such measures may include, but are not limited to: 1) construction management techniques (e.g., providing advance notice of construction activities to	Less than Significant with respect to construction noise. Significant and unavoidable with respect to permanent traffic noise.

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
Project implementation would have the potential to change the existing amounts and types of land uses within the Planning Area. These potential land use changes would increase the number of residents and employees. This increase in population and employment would lead to increased vehicle traffic on the local roadway system, which could result in traffic-related noise levels that pose land use compatibility issues or result in a substantial permanent increase in traffic-related noise levels throughout the Planning Area. (Mitigation NOI-1)		nearby noise-sensitive receptors, siting staging areas away from noise-sensitive land uses, phasing activities to take advantage of shielding/attenuation provided by topographic features or buildings, monitoring construction); 2) construction equipment controls (e.g., ensuring equipment has mufflers, use of electric hook-ups instead of generators); 3) use of temporary sound barriers (equipment enclosures, berms, walls, blankets, or other devices) when necessary; 4) preparation of a plan, procedures, or other mechanisms to receive track, respond, and resolve construction noise complaints, including designation of an on-site appointee to handle such complaints, and report back to City staff; and 5) require monitoring construction noise levels if complaints are received to verify the need for additional noise controls	
D. Would the project cause substantial adverse cumulative impacts with respect to noise? Potential temporary construction-related noise increases of more than 10 dBA above ambient conditions during permissible construction hours would be a potentially significant impact. (Mitigation NOI-1) The long-term increases in traffic in the Planning Area would result in a cumulatively considerable increase in noise exposure along many road segments in the Planning Area. (Mitigation NOI-1)	Significant	See Mitigation Measure NOI-1 Above.	Less than Significant with respect to construction noise. Significant and unavoidable with respect to permanent traffic noise.

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
Public Services			
A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: **i) Fire Protection:** The proposed GPU would result in a substantial amount of development and increased population throughout the Planning Area. The increase in growth potential that would be allowed under the GPU would likely, may at some point result in the requirement for new or expanded facilities. New fire facilities will be constructed to accommodate growth and provide acceptable level of service in the Planning Area. (Mitigation PS-1 and PS-2)	Significant for Fire Protection Only	**PS-1: Annual quantitative fire services review and coordination.** City Council shall annually consider, in conjunction with the state-required annual review of capital improvement projects for consistency with the General Plan, the need for increases in fire equipment and/or facilities, including the need for a new fire station. As part of this review, the City Council will receive for consideration the evaluation and recommendation of the Riverside County Fire Department (RCFD) for providing additional equipment or facilities, including the timing for providing such equipment or facilities. Criteria for determining need shall include, but not be limited to, existing and projected increases within the Planning Area of fire station response times for new development, emergency calls, ratio of RCFD staff to population, the capacity of existing fire stations in the Planning Area to house additional staff and equipment needed to serve existing and projected population. If the City Council finds that additional equipment or facilities are needed, the City shall coordinate and consult with the RCFD to establish a viable funding method to provide for such facilities and equipment in a manner timely to ensure existing service levels, including response times are not impacted.	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		PS-2: Project Review: All projects that are subject to CEQA review shall be evaluated to determine whether they can be provided adequate fire prevention and emergency medical services, including adequate response times. In the event that it is determined that adequate services cannot be provided, project specific mitigation may be provided to offset identified service deficiencies.	
B. Would the project cause substantial adverse cumulative impacts with respect to public services? Development that results from the proposed GPU, in combination with other cumulative development in the Planning Area would increase the demand for all public services. Public services can be potentially impacted by increased population, especially when new facilities are not built to meet population increases or when existing facilities are not adequately maintained. Alternatively, impacts may also occur when new facilities are built, resulting in physical impacts to existing resources. (Mitigation PS-1 and PS-2)	Significant	See Mitigation Measures PS-1 and PS-2 Above.	Less than Significant
Transportation and Traffic			
A. Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? The study intersection LOS for the Proposed General Plan Update conditions without improvements are shown in Table 4.17-10. As shown in the table, 16 out of the 24 study	Significant with Respect to Selected Intersections and the Congestion Management Program (CMP)	**TRANS-1**: In order to ensure proper timing for the installation of the identified intersection improvements and roadway widening, project proponents, in consultation with the City Public Works Department, shall be required to prepare a traffic impact analysis for their proposed project when it is determined by the Public Works Department that the project could	Significant and Unavoidable for the CMP and at the following intersections:

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
intersections (listed below) are forecast to operate at unacceptable LOS (E or F) for General Plan Update conditions without improvements: Intersection 1: SR-62 at Indian Canyon Dr during the PM peak hours Intersection 2: SR-62 at Pierson Blvd during the AM and PM peak hours Intersection 5: Indian Canyon Dr at Pierson Blvd during the AM and PM peak hours Intersection 6: Indian Canyon Dr at 14th Ave during the AM and PM peak hours Intersection 7: Indian Canyon Dr at Dillon Rd during the AM and PM peak hours Intersection 8: Indian Canyon Dr at 20th Ave during the AM and PM peak hours Intersection 10: Little Morongo Rd at Pierson Blvd during the AM and PM peak hours Intersection 11: Little Morongo Rd at 14th Ave/Two Bunch Palms Trail during the AM and PM peak hours Intersection 12: Little Morongo Rd at Dillon Rd during the AM and PM peak hours Intersection 13: Little Morongo Rd at 20th Ave during the PM peak hours Intersection 18: Palm Dr at Dillon Rd during the AM and PM peak hours Intersection 19: Palm Dr at 20th Ave during the AM and PM peak hours Intersection 20: Palm Dr at Varner Rd during the AM and PM peak hours Intersection 22: Mountain View Rd at Dillon Rd		potentially impact intersection or segment operations, and additional analysis is warranted. If a project would directly cause an intersection or roadway segment to degrade to an unacceptable Level of Service (LOS E or F), the project proponent shall be responsible for providing improvements (described below or otherwise identified by the City) necessary to maintain an acceptable LOS; improvements provided by a project proponent may be eligible for reimbursement of costs in excess of the project's fair share, subject to a reimbursement agreement with the City. If a project impacts an intersection or roadway segment but would not cause an unacceptable LOS at an intersection, project proponents shall be required to pay a proportionate fair share amount towards the future improvement of the intersection or roadway segment. Specific intersection improvements are listed below: ***Intersection 1: SR-62 at Indian Canyon Drive*** While improvements to the intersection (described in Appendix F) would result in an acceptable LOS, SR-62 is a Caltrans facility and the City of Desert Hot Springs cannot guarantee installation of the improvements. ***This impact is considered significant and unavoidable.*** ***Intersection 2: SR-62 at Pierson Boulevard*** While improvements to the intersection (described in Appendix F) would result in an acceptable LOS, SR-62 is a Caltrans facility and	Intersection 1: SR-62 at Indian Canyon Drive Intersection 2: SR-62 at Pierson Boulevard Intersection 18: Palm Drive at Dillon Road Intersection 20: Palm Drive at Varner Road Intersection 23: Mountain View Road at Varner Road

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
during the AM peak hours Intersection 23: Mountain View Rd at Varner Rd during the AM and PM peak hours Intersection 24: Long Canyon Rd at Dillon Rd during the PM peak hours Under existing conditions, Intersections #7, #19, and #23 currently operate at unacceptable LOS (either LOS E or F) during the AM Peak Hour, PM Peak Hour, or both AM and PM Peak Hours. (Mitigation TRANS-1)		the City of Desert Hot Springs cannot guarantee installation of the improvements. ***This impact is considered significant and unavoidable.*** ***Intersection 4: Indian Canyon Drive at Mission Lakes Boulevard*** Implement the following intersection improvements: • Northbound: One shared left/through lane and one right turn lane • Southbound: One left turn lane and one shared through/right turn lane • Eastbound: One shared left/through/right lane • Westbound: One left turn lane and one shared through/right turn lane With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 5: Indian Canyon Drive at Pierson Boulevard*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One left turn lane, one through lane, and one right turn lane • Southbound: One shared left/through/right turn lane • Eastbound: One shared left/through lane and one shared through/right turn lane • Westbound: One left turn lane and one shared through/right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 6: Indian Canyon Drive at Two Bunch Palms Trail*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One shared left/through/right turn lane • Southbound: One left turn lane and one shared through/right turn lane • Eastbound: One shared left/through/right turn lane • Westbound: One shared left/through/right turn lane With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 7: Indian Canyon Drive at Dillon Road*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One left turn, two through lanes, and one right turn lane • Southbound: One left turn, two through lanes, and one right turn lane • Eastbound: One left turn lane, one through lane, and one right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Westbound: Two left turn lanes, one through lane, and one right turn lane With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 8: Indian Canyon Drive at 20th Avenue*** Implement the following intersection improvements: • Northbound: One left turn lane, two through lanes, and one right turn lane • Southbound: One left turn lane, two through lanes, and one shared through/right turn lane • Eastbound: One left turn lane, one through lane, and one right turn lane • Westbound: Two left turn lanes, one shared through/right turn lane, and one right turn lane With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 10: Little Morongo Road at Pierson Boulevard*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One shared left/through/right turn lane • Southbound: One shared left/through/right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Eastbound: One left turn lane, one through lane, and one right turn lane • Westbound: One left turn lane, one through lane, and one right turn lane With implementation of the identified improvement, this impact would be considered less than significant. ***Intersection 11: Little Morongo Road at Two Bunch Palms Trail*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One left turn lane, one through lane, and one right turn lane • Southbound: One shared left/through/right turn lane • Eastbound: One shared left/through/right turn lane • Westbound: One left turn lane, one through lane, and one right turn lane With implementation of the identified improvements, this impact would be considered less than significant. ***Intersection 12: Little Morongo Road at Dillon Road*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One left turn lane, one through lane, and one right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Southbound: One left turn lane, one through lane, and one right turn lane • Eastbound: Two left turn lanes and one shared through/right turn lane • Westbound: One left turn lane and one shared through/right turn lane With implementation of the identified improvement, this impact would be considered less than significant. ***Intersection 13: Little Morongo Road at 20th Avenue*** Implement the following intersection improvements: • Construct new intersection with all way stop control • Northbound: One left turn lane and one shared through/right turn lane • Southbound: One shared left/through/right turn lane • Eastbound: One shared left/through/right turn lane • Westbound: One shared left/through/right turn lane With implementation of the identified improvement, this impact would be considered less than significant. ***Intersection 18: Palm Drive at Dillon Road*** Implement the following intersection improvements: • Northbound: Two left turn lanes, two through lanes, and one right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Southbound: One left turn lane, two through lanes, and one right turn lane • Eastbound: One left turn lane, one through lane, and one right turn lane • Westbound: Two left turn lanes, one through lane, and one right turn lane While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented given existing constraints at this location. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is identified as significant and unavoidable impact.*** ***Intersection 19: Palm Drive at 20th Avenue*** Implement the following intersection improvements: • Install a traffic signal • Northbound: One left turn lane, two through lanes, and one right turn lane • Southbound: One left turn lane, three through lanes, and one right turn lane • Eastbound: One shared left/through/right turn lane • Westbound: One shared left/through/right turn lane With implementation of the identified improvement, this impact would be considered less than significant.	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		Intersection 20: Palm Drive at Varner Road Implement the following intersection improvements: • Northbound: One left turn lane, three through lanes, and one right turn lane • Southbound: One left turn lane, three through lanes, and one right turn lane • Eastbound: One left turn lane, one through lane, and one right turn lane • Westbound: Two left turn lanes, two through lanes, and one right turn lane While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented as the intersection is located within City of Cathedral City jurisdiction. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is considered significant and unavoidable.*** ***Intersection 22: Mountain View Road at Dillon Road*** Implement the following intersection improvements: • Northbound: One left turn lane and one shared through/right turn lane • Southbound: One left turn lane and one shared through/right turn lane • Eastbound: One left turn lane and one shared through/right turn lane • Westbound: Two left turn lanes and one shared through/right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		With implementation of the identified improvement, this impact would be considered less than significant. ***Intersection 23: Mountain View Road at Varner Road*** Implement the following intersection improvements: • Install a traffic signal • Southbound: One left turn lane and one right turn lane • Eastbound: One shared through/right turn lane • Westbound: One through lane and one right turn lane While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented as the intersection is located within City of Cathedral City jurisdiction. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is considered significant and unavoidable.*** ***Intersection 24: Long Canyon Road at Dillon Road*** Implement the following intersection improvements: • Northbound: One shared left/through lane and one right turn lane • Southbound: One left turn lane and one shared through/right turn lane	

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		• Eastbound: One left turn lane, one through lane, and one shared through/right turn lane • Westbound: One left turn lane, one through lane, and one right turn lane With implementation of the identified improvement, this impact would be considered less than significant. Implementation of the GPU has the potential to result in significant and unavoidable impacts at the following roadway segments: • Indian Canyon Drive: 13th Ave to 14th Ave – (R19) • Indian Canyon Drive: Dillon Road and 20th Avenue – (R21) • Palm Drive: Two Bunch Palms Trail and Dillon Road – (R34) • Palm Drive: Dillon Road and 20th Avenue – (R35) • Palm Drive: Varner Road and I-10 Freeway – (R37) • Mountain View Road: Hacienda Avenue and Dillon Road – (R40) • Two Bunch Palms Trail: east of Palm Drive – (R72)	
E. Would the project cause substantial adverse cumulative impacts with respect to transportation and traffic? As described in Section 4.17.4 (A), 16 out of the 24 study intersections are forecast to operate at unacceptable LOS (E or F) for Proposed	Significant	See Mitigation Measure TRANS-1 Above.	Significant and Unavoidable

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
General Plan Update (2040) conditions without improvements. It should be noted that under existing conditions, Intersections #7, #19, and #23 currently operate at unacceptable LOS (either LOS E or F) during the AM Peak Hour, PM Peak Hour, or both AM and PM Peak Hours; implementation of the GPU would likely contribute to a cumulative impact at these intersections. (Mitigation TRANS-1)			
Utilities			
A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? Anticipated growth under the GPU is substantial and will require additional water resources and the incorporation of widespread conservation efforts. Additionally, the water use projection is greater than the supply shown in the MSWD UWMP for 2015. The water impacts are potentially significant. (Mitigation ULT-1)	Significant	**ULT-1:** Developments, under the General Plan Update, that will be served by local utility providers, will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Master Plan.	Less than Significant
B. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? The GPU is anticipated to require more water that is currently identified in the most recent MSWD UWMP. This shortfall is anticipated to occur towards the end of the planning horizon.	Significant	See Mitigation Measure ULT-1 Above.	Less than Significant

Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
Further conservation efforts and/or increased supply (from recycled water or other sources) may account for the anticipated growth. (Mitigation ULT-1)			
F. Would the project cause substantial adverse cumulative impacts with respect to utilities and service systems? Development that results from the proposed GPU, in combination with other cumulative development in neighboring areas would increase the demand for utilities. Water supply may not be adequate for the full implementation of the GPU. (Mitigation ULT-1)	Significant	See Mitigation Measure ULT-1 Above.	Less than Significant

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2.4 Areas of Potential Controversy

No areas of controversy were identified during the initial scoping process for the EIR. However, areas of controversy have been identified during preparation of this document with respect to:

- Air Quality
- Greenhouse Gas
- Noise
- Transportation and Traffic
- Utilities

2.5 Alternatives to the Proposed Project

CEQA requires that an EIR examine alternatives to the project that are capable of reducing or eliminating the unavoidable significant effects. The alternatives examined in Section 5.0 are:

- Alternative 1: No Project/Existing 2000 General Plan
- Alternative 2: Twenty Percent Reduced Build
- Alternative 3: Reduced Residential

In accordance with CEQA Guidelines Section 15126.6(d), the discussion of impacts of the alternatives is less detailed than the evaluation included in Sections 4.1 through 4.20 of the impacts associated with implementation of the GPU.

The No Project/Existing 2000 General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only development anticipated under the 2000 General Plan. Additionally, no new policies or goals associated with the General Plan Update would be implemented; the standards, goals and policies associated with the 2000 General Plan would be applicable.

The Twenty Percent Reduced Build (Reduced Build) alternative assumes that overall development associated with the Project would be reduced by twenty percent. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative.

The Reduced Residential Alternative assumes that residential development would be restricted to areas included in already approved Specific Plans or urbanized areas that include existing infrastructure. This would result in a substantial reduction in residential and population growth; non-residential and hotel/motel development would be similar to the Project. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative.

2.6 Environmentally Superior Alternative

Alternative 3, Reduced Residential, would result in the least adverse environmental impacts and would therefore be the “environmentally superior alternative.” This conclusion is based on the comparative impact conclusions in Section 5.0 and the analysis within this section. However, this alternative would not fully meet the objectives at the same level as the Project.

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3.0 – Project Description

The City of Desert Hot Springs is updating its General Plan (General Plan Update or GPU), consistent with State requirements; the Plan for development is through the year 2040 (2040 planning horizon). The existing plan was adopted in 2000. Under California law (Government Code Section 65300 et seq.), every city and county are required to have a general plan that functions as a comprehensive, long-range policy document. For cities, the general plan guides the physical development of the incorporated city (e.g., city limit) and any land outside city boundaries (e.g., unincorporated sphere of influence area) that has a relationship to the city's future growth and development. A sphere of influence is a planning boundary outside of a city's legal boundary (such as the city limit line) that designates the city's probable future boundary and service area. The project analyzed in this program draft Environmental Impact Report (EIR) is the adoption and long-term implementation of the General Plan Update and subsequent zoning code amendment (consistent with the Land Use and Community Design Element). The General Plan Update includes areas within the City boundaries and the Sphere of Influence.

This Draft EIR evaluates the potential physical impacts of development as conceived under the GPU. Overall, the GPU, including the Zoning Code Amendment, would result in the conversion of undeveloped lands within the study area to be developed with various land uses. The Zoning Code Amendment includes an updated Zoning Map with revised and new Zoning Districts that are consistent with the Land Use Policy Plan map and corresponding land use designations proposed under the proposed Land Use Element. The development would result in physical impacts to the environment as well as population growth. This Draft EIR evaluates the potential impacts under the GPU. It should be noted future individual projects would be subject to environmental review, under CEQA, at the time of permitting.

3.1 Background

The City of Desert Hot Springs is in the northwestern portion of the Coachella Valley, north of the City of Palm Springs and south of the unincorporated community of Morongo Valley in San Bernardino County. The City is a few miles south of the Riverside County/San Bernardino County boundary. The City is located near the interchange of the I-10 freeway and SR-62 highway. The San Bernardino and Little San Bernardino Mountains bound the City on the west and north while the San Jacinto and Santa Rosa Mountains lie further to the southwest and south. Joshua Tree National Park is located immediately to the northeast of the City and the Sand to Snow National Monument is located to the north.

The Planning Area consists of the corporate boundaries of the City of Desert Hot Springs and its Sphere of Influence (unincorporated Riverside County). The area within the City's corporate boundaries total 30.5 square miles and its Sphere of Influence totals 28.8 square miles for a total Planning Area of 59.3 square miles. The regional and local context of the Planning Area is identified on Exhibits 3-1 (Vicinity Map) and 3-2 (Planning Area).

3.2 Existing Conditions

Environmental Setting

Desert Hot Springs is in a desert landscape within the Coachella Valley with views of surrounding mountain ranges. Sitting approximately 1,000 feet above the rest of the valley, the City overlooks

Palm Springs to the south and the rest of the Coachella Valley to the southeast. The extensive alluvial plains created by drainage from these mountains form the elevated valley. Both Mission Creek and Big Morongo Wash drainages traverse though the City diagonally from northwest to southeast and connect to the Whitewater River just south of Interstate 10. The City adjoins the Sand to Snow National Monument and Joshua Tree National Park.

Desert Hot Springs currently consists predominantly of low-density residential development, several commercial centers at key intersections, a pedestrian scale downtown, and light industrial uses on the periphery. Much of the Planning Area is currently undeveloped; there are areas on the periphery of the City where newer housing has been developed. Indoor cultivation of cannabis for commercial purposes occurs in the southern portion of the City. Since incorporation in 1963, the City has seen periods of surging population growth, particularly between 1980 and 2010. During the Great Recession of 2007 to 2009, there was minimal development growth. The population of the City, as of 2018, is just under 30,000 persons and a total of 48,550 for the entire Planning Area. The Planning Area consists of nine public schools (one high school, two middle schools, and six elementary schools).

The southern portion of the City lies north of I-10. This freeway provides regional east-west access through Desert Hot Springs; interchanges providing access for City of Desert Hot Springs are located at Indian Canyon Drive and Palm Drive. State Route 62 is a four-lane divided highway runs in a north-south direction along the western side of the City. Primary access points for City of Desert Hot Springs access along this highway are provided at Indian Canyon Drive, Pierson Boulevard, and Dillon Road. Operated by Sunline Transit Agency, the City is served by two bus lines, primarily serving Pierson Boulevard and Palm Drive.

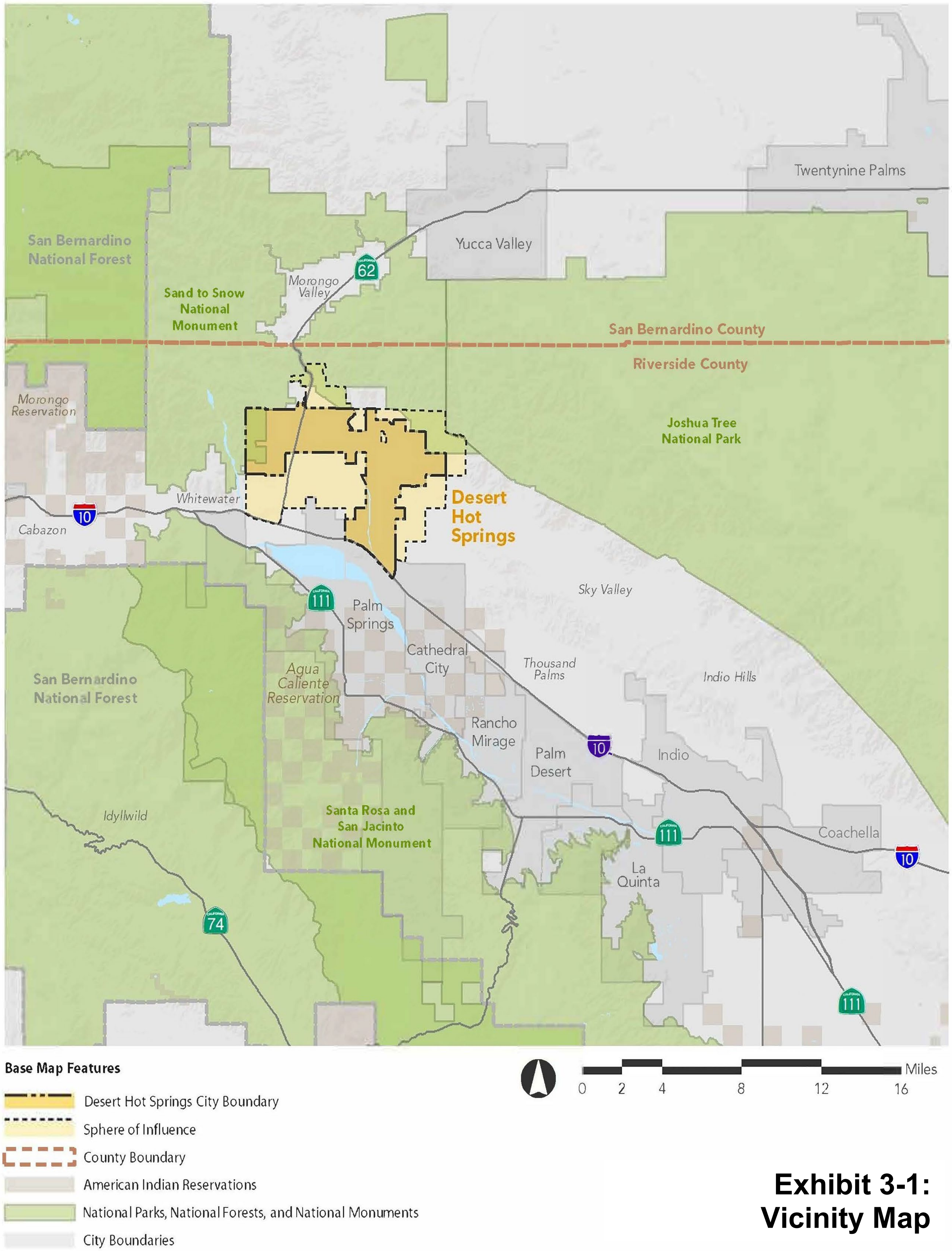

Exhibit 3-1: Vicinity Map

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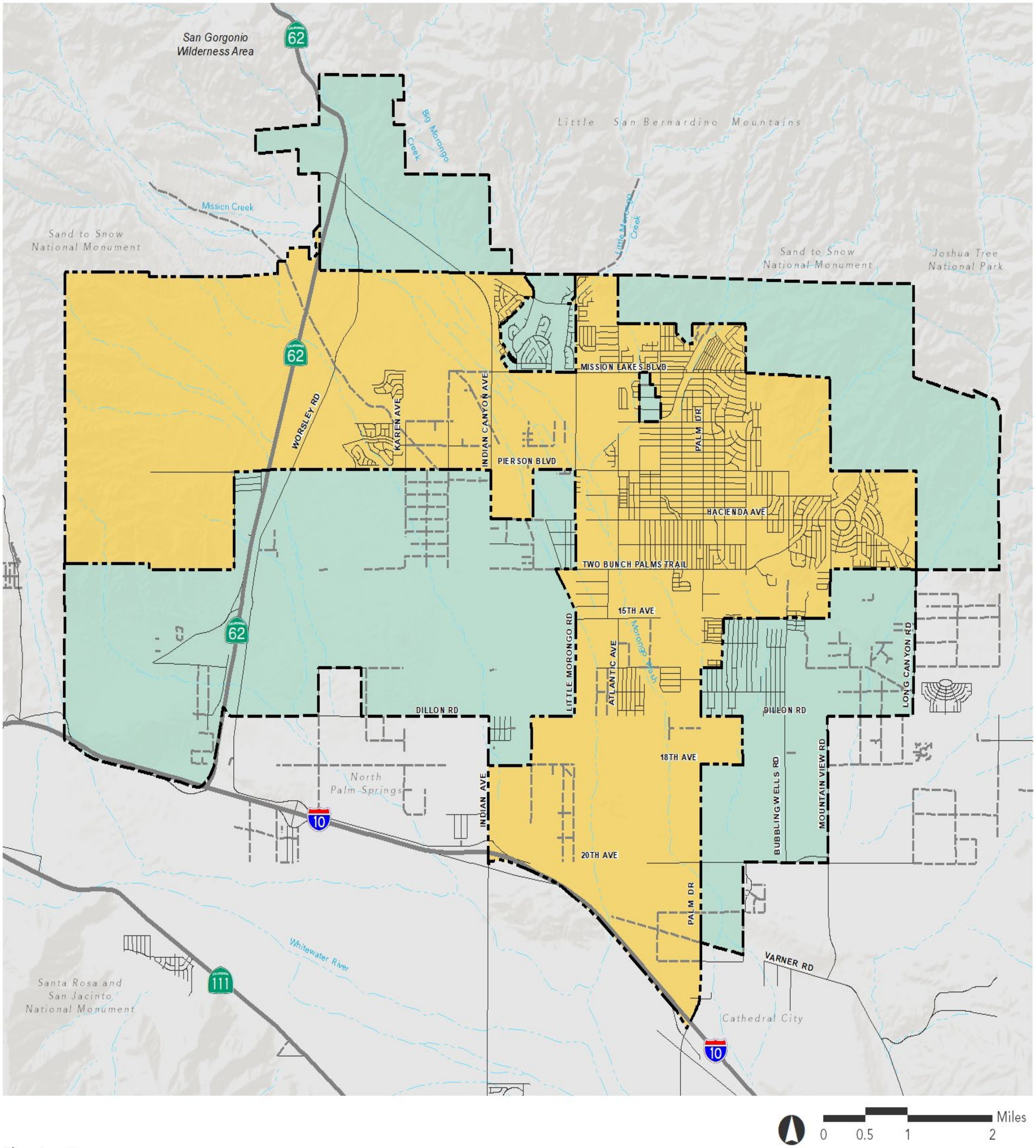

Planning Area

Desert Hot Springs City Boundary

Desert Hot Springs Sphere of Influence

Source: City of Desert Hot Springs and Riverside County.

Date: August 2019.

Exhibit 3-2: Planning Area

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Existing Land Use
Desert Hot Springs' existing land use distribution is noted in Table 3-1. The City's Existing Land Use map is shown as Exhibit 3-3. There are an estimated 11,562 dwelling units within the City limits and 7,538 dwelling units in the Sphere of Influence, for a total 19,100 dwellings within the Planning Area.

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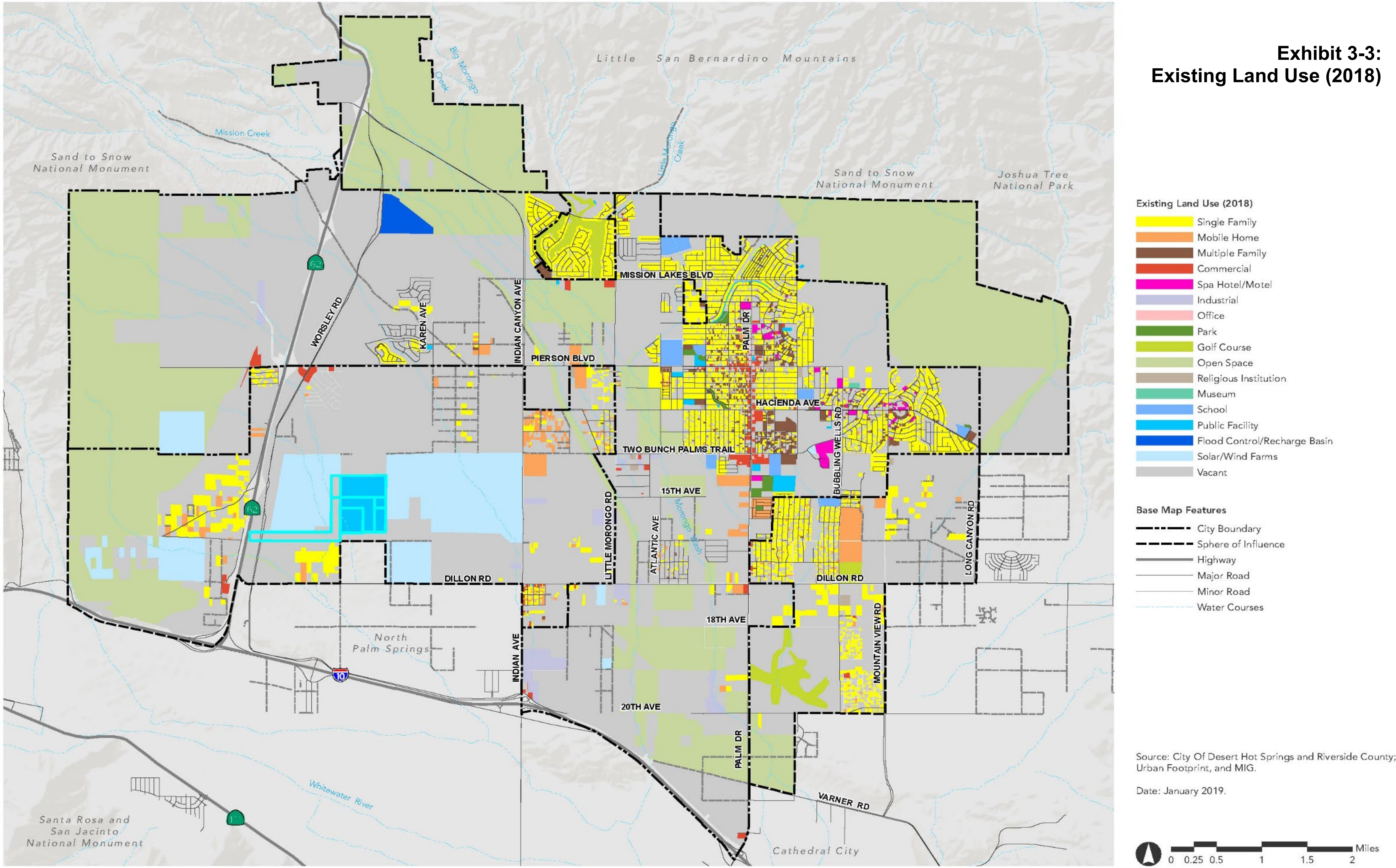
Exhibit 3-3: Existing Land Use (2018)



Source: City Of Desert Hot Springs and Riverside County; Urban Footprint, and MIG.

Date: January 2019.

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Table 3-1
Existing Land Use Distribution (2018)

Land Use Designation	Desert Hot Springs			Sphere of Influence			Planning Area		
	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet
Residential									
Single-Family	1,533.4	7,487	--	1,085.6	5,301	--	2,619.0	12,788	--
Multiple-Family	203.2	3,204	--	15.6	246	--	218.8	3450	--
Mobile Homes	145.9	871	--	333.5	1,991	--	479.4	2,862	--
Sub-Total	**1,882.5**	**11,562**	**--**	**1,434.7**	**7,538**	**--**	**3,317.20**	**19,100**	**--**
Commercial									
General Commercial	140.1	--	915,413	35.9	--	234,571	176.0	--	1,149,984
Hotel/Motel Spa	60.8	--	582,475	0.0	--	--	60.8	--	582,475
Office	10.7	--	120,183	0.4	--	4,513	11.1	--	124,696
Sub-Total	**190.0**	**--**	**1,618,071**	**36.3**	**--**	**239,084**	**247.9**	**--**	**1,857,155**
Industrial									
Light Industrial	158.7	--	1,036,945	49.0	--	320,166	207.7	--	1,357,111
Wind/Solar Farms	185.8	--	--	1,575.4	--	--	1,761.20	--	--
Sub-Total	**344.5**	--	**1,036,945**	**1,624.4**	--	**320,166**	**1,968.90**	--	**1,357,111**
Public and Institutional									
Public Facility	37.3	--	--	214.1	--	--	251.4	--	--
School - Public	111.3	--	--	14.9	--	--	126.2	--	--
Museum	4.8	**--**	**--**	**--**	**--**	**--**	**4.8**	**--**	**--**
Utility/Infrastructure	140.6	--	--	--	--	--	140.6	--	--
Sub-Total	**294.0**	--	--	**229.0**	--	--	**523**	--	--
Open Space									
Parks and Recreation	53.7	--	--	--	--	--	53.7	--	--
Golf Course	--	--	--	362.3	--	--	362.3	--	--
Open Space	4,508.3	--	--	5,613.0	--	--	10,121.3	--	--
Sub-Total	**4,562.0**	**--**	**--**	**5,975.3**	**--**	**--**	**10,537.3**	**--**	**--**

Land Use Designation	Desert Hot Springs			Sphere of Influence			Planning Area		
	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet
Undeveloped Land									
Vacant	10,764.3	--	--	8,179.7	--	--	18,962.3	--	--
Sub-Total	**10,764.3**	--	--	**8,179.7**	--	--	**18,962.3**	--	--
TOTAL	**18,058.9**	**11,562**	**2,655,016**	**17,497.7**	**7,538**	**559,250**	**35,556.6**	**19,100**	**3,214,266**

Source: City of Desert Hot Springs, Riverside County Assessor's Data, and General Plan Update GIS data, 2018.
Note: 1) Net acres excludes streets and other public rights of way.

3.3 Project Objectives

The Desert Hot Springs GPU serves as the blueprint for the City's future growth and development. As such, the General Plan must contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The General Plan Update establishes the following objectives for the long-term growth and enhancement of the community:

1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.
3) Expand and diversify housing opportunities throughout the community.
4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
6) Protect the natural habitat, open spaces, and desert washes within the community.
7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
8) Expand park facilities and recreational programming opportunities throughout the community.
9) Promote the community's role as a health and wellness destination.

3.4 Proposed General Plan Update

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 3-2 compares 2018 and 2040 land uses for the City of Desert Hot Springs, the Sphere of Influence and the overall Planning Area. Table 3-3 through 3-5 show a more detailed breakdown of the 2040 GPU land uses, population, and employment within the city boundaries, for the Sphere of Influence and for the entire Planning Area. The 2040 planning horizon for the Planning Area is estimated at approximately 53,664 dwelling units, 136,402 residents, 20,349,704 square feet of non-residential uses, and 20,531 jobs. This table shows existing conditions as of 2018 and the projected growth based on the proposed land use plan for a future horizon year of 2040.

**Table 3-2:
General Plan Update: Comparison of 2018 and 2040**

Area		Dwelling Units			Population	Non-Residential Building Sq. Ft.[3]	Employees	Hotel/ Motel Rooms	Students
		SF[1]	MF[2]	Total					
City	2018	8,358	3,204	11,562	29,390	2,655,016	4,162	755	6,326
	2040	22,214	12,594	34,808	88,476	13,140,605	14,611	1,652	12,900
	Change	+13,856	+9,390	+23,246	+59,086	+10,485,589	+10,449	+897	+6,574
SOI	2018	7,292	246	7,538	19,160	559,250	1,020	--	763
	2040	18,025	831	18,856	47,926	7,209,099	5,920	--	7,100
	Change	+10,733	+585	+11,318	+28,766	+6,649,849	+4,900	--	+6,337
Planning Area	2018	15,650	3,450	19,100	48,550	3,214,266	5,182	755	7,089
	2040	40,239	13,425	53,664	136,402	20,349,704	20,531	1,652	20,000
	Change	+24,589	+9,975	+34,564	+87,852	+17,135,438	+15,349	+897	+12,911

[1] Single Family
[2] Multi-Family

General Plan Elements
The General Plan Update addresses the seven State mandated general plan elements (land use, circulation, housing, safety, conservation, open space, and noise), and also includes two optional elements the Economic Development Element and the Health and Wellness Element. The updated General Plan establishes an overall development capacity and serves as a policy guide for determining the appropriate physical development, community services, and character of the entire Planning Area. The General Plan Update includes the following chapters:

- Introduction
- Land Use and Community Design Element
- Housing Element
- Economic Development Element
- Mobility and Infrastructure Element
- Open Space and Community Resources Element
- Health and Wellness Element
- Safety and Noise Element

Each of the elements contains goals and policies consistent with the implementation of the GPU. Many of these goals and policies are intended to maintain various potential environmental effects of the Project at levels that are less than significant. Therefore, these goals and policies, in particular, are considered when evaluating the potential environmental impacts of implementing the GPU. The policies that are applicable to various environmental impact issue areas are shown in the Introduction of Section 4. The entire list of goals and policies from the GPU are also provided in Appendix C of this DEIR.

Land Use and Community Design Element
The Land Use and Community Design Element provides the framework for establishing the patterns of development activity and land uses that support the visual character and built physical environment of a desert community. This Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. Land use designations identify the general categories of land-based activities permitted throughout the Planning Area. The land use overlays identify special study areas for which specific land use policies have been developed to better shape growth in these areas as shown in Exhibit 3-4. The goals and policies contained in the chapter provide guidance to plan for orderly growth, promote economic development, and protect natural resources.

The Land Use and Community Design Element includes a Land Use Plan that establishes 12 land use designations intended to provide a rational and orderly approach to land use development. The land use designations and acreages for the City are noted in Table 3-3, for the City's Sphere of Influence (SOI) in Table 3-4 and Table 3-5 shows the land use information for the Planning Area (the City and the SOI combined).

Housing Element
This Housing Element provides a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for all community residents. The Housing Element specifically intends to: 1) provide direction for future planning programs to ensure that sufficient consideration is given to housing goals and policies; 2) establish community goals and policies relative to housing through the identification of existing, stated, and implicit goals, and the identification of housing needs and challenges; 3) and establish and identify programs to implement and attain the community's goals and policies, taking into consideration the feasibility of those programs, and act as a meaningful guide to decision-makers considering housing-related issues.

Economic Development Element
The Economic Development Element guides the City in expanding, maintaining, and enhancing the local economy that provide jobs, attract and retain businesses, support diverse and vibrant commercial areas, and provide sufficient revenue to local government. The Economic Development Element provides the central organizational unit to establish the goals and policies focused specifically on economic development related to strengthening established industries, business attraction and retention, and capturing local dollars.

Table 3-3:
Desert Hot Springs (City) General Plan Update (2040) Land Use

Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	2,212.7	0.20 DU/AC	230	585	--	--
Residential -Low	2,656.2	6.0 DU/AC	11,168	28,388	--	--
Residential -Medium	677.6	20.0 DU/AC	6,568	16,695	--	--
Residential -High	269.5	30.0 DU/AC	5,176	13,156	--	--
Sub-Total	***5,816.0***	***N/A***	***23,142***	***58,824***	**--**	**--**
Commercial						
General Commercial	984.8	0.30 FAR	--	--	5,581,081 SF	5,390
Visitor-Serving/ Residential	557.5	1.00 FAR	--	--	--	630
Sub-Total	***1,542.3***	**--**	**--**	**--**	***5,581,081 SF***	***6,020***
Mixed Use						
Mixed-Use Corridor	223.3	30.0 DU/AC	2,679	6,810	340,397 SF	467
Mixed-Use Neighborhood	188.7	15.0 DU/AC	1,132	2,877	287,631 SF	395
Sub-Total	***412.0***	**--**	***3,811***	***9,687***	***628,028 SF***	***862***
Industrial						
Industrial/Employment	1,302.8	0.60 FAR	--	--	6,809,996 SF	5,566
Sub-Total	***1,302.8***	**--**	**--**	**--**	***6,809,996 SF***	***5,566***
Public Uses						
Public Facilities	622.6	--	--	--	(12,900 students)	1,277
Sub-Total	**622.6**	--	--	--	**--**	***1,277***
Open Space/Recreation						
Open Space	4,796.4	--	--	--	--	--
Sub-Total	***4,796.4***	**--**	**--**	**--**	**--**	**--**
Other						
Specific Plans	3,566.8	varies	7,855	19,965	121,500 SF	886
Sub-Total	**3,566.8**	**--**	**7,855**	**19,965**	**121,500 SF**	**886**
TOTAL	**18,058.9**		**34,808**	**88,476**	**13,140,605 SF**	**14,611**

Source: City of Desert Hot Springs and General Plan Update GIS data.
Note: Project area acreage excludes ROWs within Planning Area.

Table 3-4:
SOI General Plan Land Uses (2040)

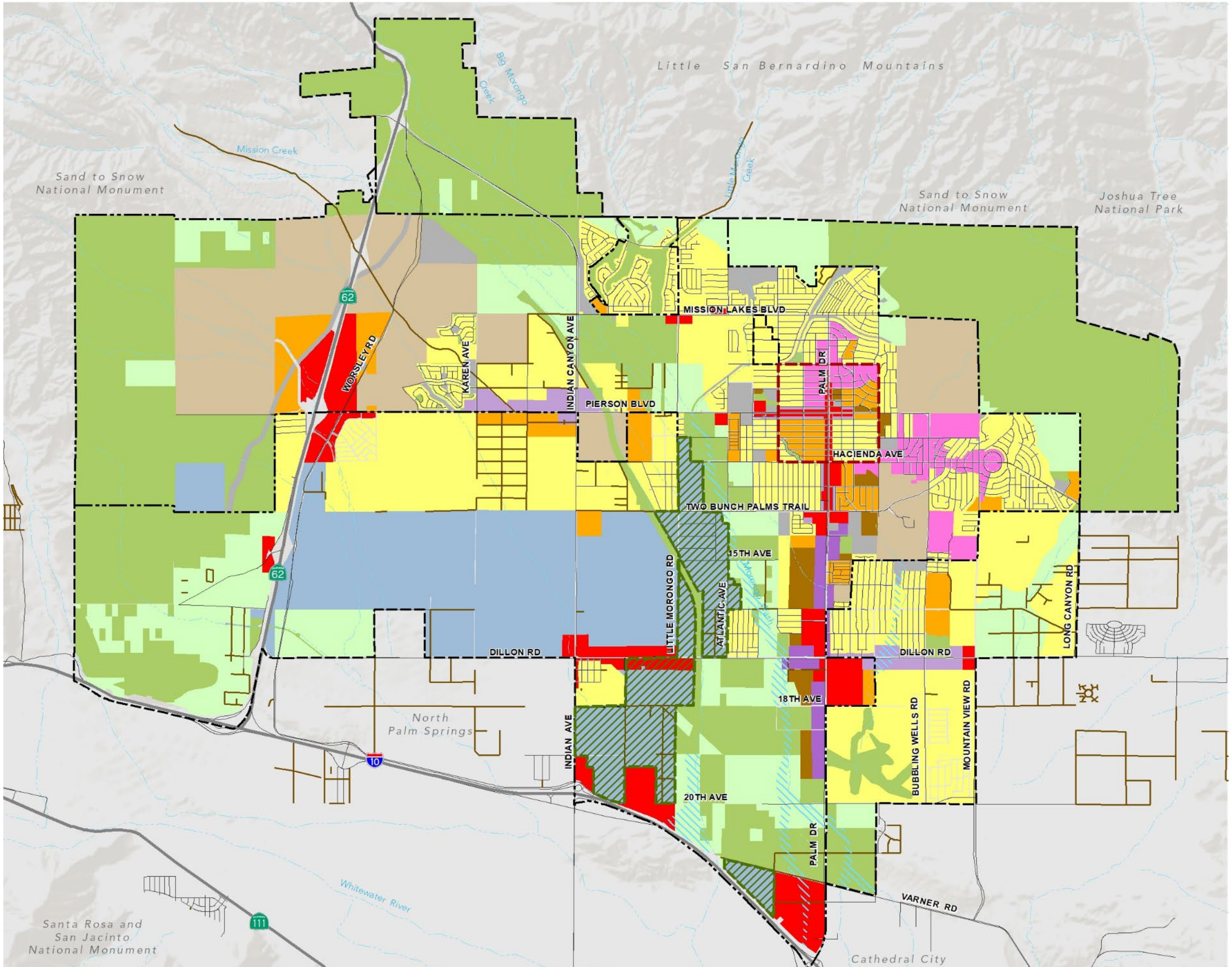
Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	2,229.4	0.20 DU/AC	232	589	--	--
Residential -Low	4,289.4	6.0 DU/AC	15,208	38,655	--	--
Residential -Medium	326.0	20.0 DU/AC	2,585	6,570	--	--
Sub-Total	***6,844.8***	***N/A***	***18,025***	***45,814***	***--***	***--***
Commercial						
General Commercial	244.8	0.30 FAR	--	--	1,226,251	1,340
Sub-Total	***244.8***	***--***	***--***	***--***	***1,226,251***	***1,340***
Mixed Use						
Mixed-Use Corridor	9.7	30.0 DU/AC	116	295	14,728	20
Mixed-Use Neighborhood	119.1	15.0 DU/AC	715	1,817	181,610	249
Sub-Total	***128.8***	***--***	***831***	***2,112***	***196,338***	***269***
Industrial						
Industrial/Employment	3,008.5	0.60 FAR	--	--	5,786,510	3,845
Sub-Total	***3,008.5***	***--***	***--***	***--***	***5,786,510***	***3,845***
Public Uses						
Public Facilities	250.3	--	--	--	(7,100 students)	466
Sub-Total	**250.3**	--	--	--	***--***	***466***
Open Space/Recreation						
Open Space	7,020.5	--	--	--	--	--
Sub-Total	***7,020.5***	***--***	***--***	***--***	***--***	***--***
TOTAL	**17,497.7**	**--**	**18,856**	**47,926**	**7,209,099**	**5,920**
Source: City of Desert Hot Springs and General Plan Update GIS data. Note: Project area acreage excludes ROWs within Planning Area.						

Table 3-5:
Planning Area General Plan Land Uses (2040)

Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	4,442.1	0.20 DU/AC	462	1,174	--	--
Residential -Low	6,945.6	6.0 DU/AC	26,376	67,043	--	--
Residential -Medium	1,003.6	20.0 DU/AC	9,153	23,265	--	--
Residential -High	269.5	30.0 DU/AC	5,176	13,156	--	--
Sub-Total	***12,660.8***	***N/A***	***41,167***	***104,638***	**--**	**--**
Commercial						
General Commercial	1,229.6	0.30 FAR	--	--	6,807,332	6,730
Visitor-Serving/ Residential	557.5	1.00 FAR	--	--	-	630
Sub-Total	***1,787.1***	**--**	**--**	**--**	***6,807,332***	***7,360***
Mixed Use						
Mixed-Use Corridor	233.0	30.0 DU/AC	2,795	7,105	355,125	487
Mixed-Use Neighborhood	307.8	15.0D U/AC	1,847	4,694	469,241	644
Sub-Total	***540.8***	**--**	***4,642***	***11,799***	***824,366***	***1,131***
Industrial						
Industrial/Employment	4,311.3	0.60 FAR	--	--	12,596,506	9,411
Sub-Total	***4,311.3***	**--**	**--**	**--**	***12,596,506***	***9,411***
Public Uses						
Public Facilities	872.9	--	--	--	(12,900 students)	1,743
Sub-Total	***872.9***	**--**	**--**	**--**	**--**	***1,743***
Open Space/Recreation						
Open Space	11,816.9	--	--	--	--	--
Sub-Total	***11,816.9***	**--**	**--**	**--**	**--**	**--**
Other						
Specific Plans	3,566.8	Varies	7,855	19,965	121,500	886
Sub-Total	***3,566.8***	***-***	***7,855***	***19,965***	***121,500***	***886***
TOTAL	**35,556.6**	**-**	**53,664**	**136,402**	**20,349,704**	**20,531**

Source: City of Desert Hot Springs and General Plan Update GIS data.
Note: Project area acreage excludes ROWs within Planning Area.

Exhibit 3-4: Land Use Plan



Land Use Designations

- R-RD: Residential Rural Desert (1 DU/5 AC)
- R-L: Residential Low (Up to 6.0 DU/AC)
- R-M: Residential Medium (Up to 20.0 DU/AC)
- R-H: Residential High (15.1-30.0 DU/AC)
- R-SP: Residential Specific Plan
- C: Commercial (0.30 FAR)
- V-S: Visitor-Serving/Residential
- MU-N: Mixed-Use Neighborhood (15 DU/AC)
- MU-C: Mixed-Use Corridor (30 DU/AC)
- I: Industrial: (0.60 FAR)
- OS: Open Space
- P: Public/Institutional

Land Use Overlays

- Arts Overlay District
- Cultivation Overlay
- Floodway and Watercourse Overlay

Base Map Features

- City Boundary
- Sphere of Influence
- Highway
- Major Road
- Minor Road
- Water Courses

Source: City Of Desert Hot Springs and Riverside County.
Date: January 2019.

0 0.25 0.5 1 1.5 2 Miles

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Mobility and Infrastructure Element
The Mobility and Infrastructure Element focuses on mobility and transportation, addressing complete streets, pedestrian and bicycle networks, transit access, and the roadway network. It also addresses street infrastructure, roadway design, and management. The infrastructure component addresses utilities related to water and wastewater, drainage and flood control, energy utilities, and solid waste and recycling.

Open Space and Community Resources Element
The Open Space and Community Resources Element addresses open space and habitat conservation, resource conservation, aesthetic resources, and cultural resources. The Element sets forth goals and policies that address preservation of open space and natural habitat, natural resource conservation, preservation of scenic resources, protecting water resources, managing energy resources, reducing greenhouse gas emissions, protecting historic preservation and cultural resources, and promoting sustainable building practices.

Health and Wellness Element
The Health and Wellness Element consists of three subjects: Health and Wellness; Parks, Recreation, and Trails; and Life-Long Learning. Health and Wellness includes goals and policies addressing health and human services, homelessness, access to healthy foods, and environmental justice. Parks, Recreation, and Trails includes goals and policies addressing park facilities, recreational programming and classes, trails connectivity and trailheads. Life-Long Learning includes goals and policies addressing schools, library services, and other life-long learning services.

Safety and Noise Element
The Safety and Noise Element addresses hazards and safety concerns that could adversely affect property and threaten lives in the City, including noise. The Safety and Noise Element is categorized into four topic areas: public safety, resilience and emergency preparedness, natural hazards, and noise. Public safety addresses fire and police protection service capabilities and needs. Resilience and emergency preparedness include policies to prevent or minimize potential loss of life or property damage and to respond effectively to safety hazards, accidents, and natural disasters. Natural hazards address seismic hazards, high winds and dust, wildland fires, and flooding. Noise identifies noise sources in the community, establishes acceptable levels of noise, projects future noise conditions, and identifies abatement strategies.

Zoning Code Amendment
The Zoning Code Amendment, which is being completed in concert with the GPU, includes an updated Zoning Map with revised and new Zoning Districts that are consistent with the Land Use Policy Plan map and corresponding land use designations proposed under the Draft Land Use Element. The revised and new Zoning Districts will include development standards and tables identifying permitted, conditional, and prohibited uses. This Zoning Code Amendment implements the General Plan Update.

3.5 Intended Use of this EIR

The planning framework proposed in the General Plan Update would not result in the immediate construction of any new development nor entitlement of any new project. All new development within the City will continue to be subject to the City's permitting, approval, and public participation processes. Elected and appointed officials along with City Staff will review subsequent project applications for consistency with the General Plan, applicable Specific Plans, and the Zoning Ordinance, and will prepare appropriate environmental documentation to comply with CEQA and other applicable environmental requirements.

Pursuant to Section 15168 of the State CEQA Guidelines, this EIR is a Program EIR. The goals, policies, land use designations, implementation programs, and other substantive components of the General Plan and implementing sections of the Zoning Ordinance comprise the "program" evaluated in this Program EIR. Subsequent activities undertaken by the City and project proponents to implement the General Plan will be examined considering this Program EIR to determine the appropriate level of environmental review required under CEQA. Subsequent implementation activities may include but are not limited to the following:

- Rezoning of properties to achieve consistency with the General Plan.
- Updating and approval of Specific Plans and other development plans and planning documents.
- Approval of tentative maps, variances, conditional use permits, and other land use permits and entitlements.
- Approval of development agreements.
- Approval of facility and service master plans and financing plans.
- Approval and funding of public improvement projects.
- Approval of resource management plans.
- Issuance of permits and other approvals necessary for implementation of the General Plan.
- Issuance of permits and other approvals necessary for public and private development projects.
- Future amendments to the City's Housing Element and other General Plan Elements.

Following certification of this EIR and adoption of the General Plan Update by the lead agency (City of Desert Hot Springs), other agencies may use this Program EIR in the approval of subsequent implementation activities. These agencies may include but are not limited to those listed below:

- Riverside County Local Agency Formation Commission (LAFCO)
- County of Riverside
- Riverside County Flood Control and Water Conservation District
- Riverside County Transportation Commission
- California Department of Fish and Wildlife

- California Department of Conservation
- California Department of Housing and Community Development (HCD)
- California Department of Transportation (Caltrans)
- Santa Ana Regional Water Quality Control Board
- South Coast Air Quality Management District
- U.S. Fish and Wildlife Services
- National Park Service (Joshua Tree National Park)
- Bureau of Land Management (Sand to Snow National Monument)

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4.0 – Environmental Analysis

This section analyzes potential impacts to the environment attributable to the implementation of the General Plan Update (GPU). Subsection 4.0.1 describes the approach and methodology to evaluating the impacts. This approach and methodology is applied to each of the 20 topical sections in this EIR.

It should be noted that substantial population growth is accommodated under the plan, as described in the Project Description. Along with this growth, there will be additional infrastructure including utilities, transportation, and public services, such as schools and parks. Although these changes are accounted for programmatically in this document, these projects will also be subject to CEQA review at the time that there are proposed.

The methodology for evaluating potential environmental impacts to the various resources is described below.

4.0.1 Environmental Analysis Methodology

(1) The existing environmental setting are defined and existing conditions described for each resource area in the Planning Area. CEQA Guidelines Sections 15125(a) and (e) stipulate that the existing environmental setting (for projects with EIR's the environmental conditions existing at the time that a Notice of Preparation is published) constitute the baseline physical conditions by which it is determined whether an impact is significant.

(2) The Regulatory Framework was then described identifying all federal, state and local laws, policies and other regulations that pertain to a particular topical section.

(3) The CEQA Statute and Guidelines, including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed in the Program EIR. This process resulted in the significance criteria listed in each section.

(4) Next, the potential impacts of the build-out, as projected under the GPU, were evaluated. These include the direct impacts of building structures on currently undeveloped land, or redevelopment of ones, in addition to potential indirect impacts from new infrastructure such as new roads and infrastructure, for example. Additionally, potential indirect impacts of the projected population growth are also considered such as the building of new schools and other public services.

(5) In cases where the GPU may result in a significant impact, policies from the General Plan Update were identified that would reduce the potential environmental impacts. These policies are listed in Table 4.0-1; the table also shows where the general plan policies reduce the impacts. This resulted in two basic conclusions: (a) the policies would avoid or reduce potential environmental impacts to less than significant levels, or (b) the policies do not reduce the impact to a less than significant level.

(6) For potential significant environmental impacts that would result that are not adequately addressed by GPU Policies, Mitigation Measures were designed to avoid or reduce each impact to a less-than-significant level. If implementation of all identified feasible mitigations cannot reduce the impact to a less-than-significant level, then the impact is considered significant and unavoidable.

Key CEQA terminology used in this EIR are defined below.

Significant/Potentially Significant Impact: "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance (CEQA Guidelines, Section 15382.) *"An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."* (CEQA Guidelines, Section 15382).

Significant Cumulative Impact: "Cumulative impacts" are defined as *"two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."* (CEQA Guidelines, Section 15355).

Unavoidable Significant Impact: "Unavoidable significant impacts" are defined as those significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible. If the project is to be approved without imposing an alternative design, the Lead Agency must include in the record of the project approval a written statement of the specific reasons to support its action (i.e., a "statement of overriding considerations") (CEQA Guidelines, Sections 15126.2[c] and 15093.

Significance Criteria: The criteria used in this EIR to determine whether an impact is or is not *"significant"* are based on (a) CEQA-stipulated "mandatory findings of significance" (i.e., where any of the specific conditions occur under which the Legislature and the Secretary of Resources have determined to constitute a potentially significant effect on the environment, which are listed in CEQA Guidelines Section 15065); (b) specific criteria that a Resources Agency has determined are "normally" considered to constitute a "significant effect on the environment;" (c) the relationship of the project effect to the adopted policies, ordinances and standards of the Lead Agency and of responsible agencies; and/or (d) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.

Mitigation Measures: For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of *"(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation or maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments, including through the permanent protection of such resources in the form of conservation easements."* (CEQA Guidelines, Section 15370). *In addition, “Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design*.”

Table 4.0-1
General Plan Policies to Avoid or Reduce Environmental Impacts

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-1.1: Balanced Growth. Support development and growth that balance residential, commercial, industrial, and open space uses in a manner that meet the needs of the community without overburdening community resources and infrastructure.										X		X	X				X	
Policy LU-1.2: Complete Neighborhoods. Create complete neighborhoods that integrate trails, parks, open space, community facilities, gathering spaces, and commercial services with residential development.										X		X	X	X				
Policy LU-1.3: Compatibility. Require that new development be visually and functionally compatible with established residential neighborhoods, industrial and commercial areas, and natural desert habitat areas.	X									X								
Policy LU-1.4: Sustainability. Promote sustainable land uses and building practices that promote efficient energy use and resource sustainability.		X					X			X								
Policy LU-1.5: Reduce Vehicular Trips and Miles Traveled. Coordinate land use patterns with the Mobility and Infrastructure Element to improve and protect air quality, reduce vehicular trips, and promote active transportation modes and transit use.		X					X			X								
Policy LU-1.6: Infill Revitalization. Encourage revitalization of underutilized and vacant infill properties within the City closest to available infrastructure and community services.										X		X						

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-1.7: Infrastructure. Ensure that infrastructure is integrated into the community concurrently with new development projects.									X	X								
Policy LU-1.8: Lot Consolidation. Encourage lot consolidation and utilize land assembly strategies and incentives to promote compatible infill developments.										X								
Policy LU-2.1: Residential Compatibility. Encourage preservation and character of the established residential neighborhoods and ensure a consistent and compatible residential land use pattern as new neighborhoods develop and expand.										X								
Policy LU-2.2: Development Transitions. Establish appropriate buffers and transitions (land use, form and/or landscaping) between residential neighborhoods and adjoining higher-density development.										X		X						
Policy LU-2.3: Consistent Development. Require that new residential development be visually and functionally consistent in scale, mass, and character with structures in the surrounding neighborhood.	X									X								
Policy LU-2.4: Housing Innovation. Consider innovative housing types and services that meets the needs of the community.										X								
Policy LU-2.5: Adequate Services. Ensure that adequate community services are provided to residential development.													X	X				

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-2.7: Higher Residential Density Corridor. Allow higher-density and mixed uses along Palm Drive and Pierson Boulevard to encourage shopping, services and entertainment amenities in closer proximity to established infrastructure and transit services.										X			X	X				
Policy LU-2.8: Specific Plans. Update or rescind specific plans that are outdated and do not meet the community goals.										X								
Policy LU-2.9: Residential Master Plan Communities. Ensure residential master plan communities protect desert habitat resources, provide community services, provide neighborhood retail and commercial services, and provide the necessary infrastructure that does not overburden established community resources.										X			X	X			X	
Policy LU-3.1: Commercial Services. Ensure that zoning regulations allow for a full range of commercial services, retail activity, and entertainment and restaurant uses.										X								
Policy LU-3.2: Neighborhood-Serving Commercial. Promote opportunities for neighborhood-serving commercial uses as part of complete neighborhoods. Such uses can include sit-down restaurants, local retail, public spaces within shopping centers, and neighborhood-oriented retail areas that provide essential goods and services.										X								
Policy LU-3.3: Balance Commercial. Maintain a balanced distribution of retail and commercial services—including local businesses, national chains, and experiential commercial uses—to meet diverse local needs in the community.										X								

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-3.6: Commercial Intensification. Encourage the intensification of commercial uses on underutilized and vacant commercial properties within Downtown and along the Pierson Boulevard and Palm Drive corridors.										X								
Policy LU-3.7: Medical and Health Services. Promote medical and health services such as urgent care facilities/clinics, hospitals, health facilities, and medical offices.										X								
Policy LU-3.8: Freeway-Oriented Uses. Promote regional-serving commercial uses along freeways and highways that accommodate and provide services to motorists, including lodging, large-scale commercial centers, automotive-related, tourism, and entertainment uses.										X								
Policy LU-3.11: Efficiency in Providing City Services and Infrastructure. Accommodate a diversity of uses that create a tax base which allows the City to maintain efficient operations in the delivery of services and maintenance of public infrastructure, including community centers, parks, roads, storm drainage, and other infrastructure.													X	X			X	
Policy LU-4.1: Central Business District. Require new development to be pedestrian friendly and oriented toward Pierson Blvd and Palm Dr to allow retail, commercial services, and experiential uses to contribute to a thriving Downtown environment.										X								

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-4.2: Pedestrian-friendly Environments. Accommodate outdoor cafes and neighborhood- serving uses as a means of promoting pedestrian activity and commercial center vitality.										X								
Policy LU-4.6: Downtown Pedestrian Design. Encourage building design and siting the accommodate pedestrians.										X								
Policy LU-4.8: Arts and Culture District. Establish an Arts and Culture District within Downtown that supports artist studios, galleries, live/work studios, and public places for events and activities.										X								
Policy LU-7.1: Mixed-Use Commercial Component. Require that new mixed-use development projects include a substantial viable, commercial component. Consider innovative incentives and startup funds to help improve long-term longevity of commercial uses.							X			X								
Policy LU-7.2: Mixed-Use Street Interface. Ensure that development enhances pedestrian activity by providing active uses, walkability, and connectivity within mixed-use districts. Require appropriate design features along a majority of the building street frontage. Residential developments should include architecturally enhanced main entrances, lobbies, front stoops and porches, open space, and other similar features.										X								
Policy LU-7.3: Mixed-Use Building Transition. Provide design and development standards that require mixed-use buildings to approximate the scale of the surrounding area. Setbacks, landscaping, and/or building transitions should buffer abutting										X								

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
single-unit residential areas, and all development lighting should be mitigated to avoid intrusion onto adjacent uses.																		
Policy LU-7.5: Connections. Require pedestrian connections between varying land uses and buildings to encourage safe access.										X								
Policy LU-7.6: Innovative Parking Solutions. Allow mixed-use developments to utilize shared parking plans, park once and walk districts, and other innovative and flexible parking strategies.										X								
Policy LU-8.3: Protect Industrial Uses. Limit non-industrial uses within industrially designated areas to protect the viability of those areas for industrial businesses.										X								
Policy LU-9.1: Public Services. Encourage the development of public facilities in a manner which ensures high levels of service, are located to efficiently serve the community, and are compatible with existing and future land uses.										X			X	X			X	
Policy LU-9.2: Public Uses. Accommodate public and quasi-public uses at appropriate locations: those that are convenient to the persons served and that minimize impacts to residential neighborhoods.										X								
Policy LU-9.5: Public Safety Siting. Avoid establishing public services and safety facilities in or near flooding and seismic hazard areas.								X	X				X					

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-10.1: Public Services. Parks and Open Space. Preserve, protect, and maintain open space, parks, and recreation facilities as critical spaces in Desert Hot Springs, recognizing that such uses contribute to the high quality of life in the City. Promote land use decisions that provide for conservation of open space.										X			X	X				
Policy LU-10.2: Private and Common Open Space. Require the provision of adequate private and common open space for all residential unit types and densities.										X								
Policy LU-10.3: Development Cluster. Encourage the clustering of development for the preservation of natural open space, away from floodplains and desert washes, and for the provision of parkland and other community amenities and services.									X	X				X				
Policy LU-10.4: Encourage the use of mountain and hill areas for recreational purposes within the limits and restrictions described and outlined in the Coachella Valley Multispecies Habitat Conservation Plan.														X				
Policy LU-10.5: Preserve Hillside Areas. Encourage the preservation of hillside areas that frame views of the community.	X									X				X				
Policy LU-10.6: Hillside Acquisition. Encourage the acquisition of hillside parcels by public trusts or other conservation-oriented entities to meet the City's and Coachella Valley Multispecies Habitat Conservation Plan's goals for conservation.										X			X	X				

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-10.7: New Park Facilities. Plan for and establish new parks to meet the needs of the community.													X	X				
Policy LU-11.1: Efficient Land Use Patterns. Encourage a land use pattern that preserves the City's desert environment, limits impact to natural habitat areas, and minimizes sprawl.	X		X							X								
Policy LU-11.2: Cluster Development. Encourage proposed projects within designated conservation areas to cluster development to provide for the greatest amount of conservation while respecting surrounding established and planned uses.										X				X				
Policy LU-11.3: Density Transfers. Encourage lands within conservation areas to participate in density transfers to maintain property owner rights and meet the conservation objectives of the Coachella Valley Multispecies Habitat Conservation Plan.			X							X								
Policy LU-11.4: Development Transitions. Encourage natural transitions between development projects in the conservation areas in keeping with the natural state of the environment. Avoid staggered and unnatural borders along conserved areas.			X							X								
Policy LU-11.5: Flood Control. Encourage the construction/improvement of necessary flood control facilities within the conservation area in a manner sensitive to natural habitat.			X					X	X	X								
Policy LU-12.3: Future Growth. Ensure that annexation provides guidance for future growth plans and policy decisions made by the major utility providers.										X								
Policy LU-13.1: Natural Landforms. Encourage development that respects natural landforms and notable vegetation on a site.	X		X															

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy LU-13.2: Appropriate Architectural Design. Encourage development that integrates desert-appropriate architecture, utilizing appropriate massing, scale, colors and roofing.	X																	
Policy LU-13.9: Community Image. Encourage a unique and consistent community image that celebrates the desert environment, surrounding hillsides, and mountain views, and incorporates sustainable development approaches.	X																	
Policy LU-13.10: Visual Character. Encourage residential development that enhances the visual character, quality, and uniqueness of neighborhoods and districts.	X																	
Policy LU-13.11: Trees and Landscaping. Encourage visually attractive residential neighborhoods by expanding desert appropriate street trees and other types of streetscape and hardscape, and by encouraging the use of attractive and appropriate drought-tolerant landscaping.	X						X										X	
Policy LU-15.2: Compliance. Encourage voluntary compliance with the Municipal Code and other applicable laws and regulations; maintain a respectful and satisfactory relationship between the City and the community.							X											
Policy MI-1.1: Transportation Network Improvements. Establish and maintain a multimodal mobility plan which sets forth improvement plans and project prioritization for a variety of modes and users of the transportation network.							X			X					X			

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy MI-1.2: Community Engagement: Involve the community in transportation planning and project design decisions for improving the transportation infrastructure and mobility network.															X			
Policy MI-1.3: Multi-Modal. Aim to develop a multimodal and/or multipurpose approach when implementing infrastructure outlined in the Mobility Plan.							X								X			
Policy MI-1.4: Resilient Mobility Network. Ensure a strong all-weather, connected, and resilient emergency and recovery mobility network.															X			
Policy MI-1.5: Roadways in Planning Communities. Require—as appropriate—that roadways and other transportation facilities within planned communities be installed and maintained as private rights-of-way. Require—as appropriate—that private roadways be developed in accordance with the standards with the City's adopted design standards and guidelines.							X								X			
Policy MI-1.6: Street Classification. Designate a street's functional classification based upon its current dimensions, land use context, and role.															X			
Policy MI-2.1: Complete Streets. Implement complete streets strategies to accommodate all users of different ages and abilities.							X								X			
Policy MI-2.2: Balanced Transportation System. Implement a balanced transportation system using complete streets principles to ensure the safety and mobility of all users.							X								X			

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy MI-2.3: Context Sensitive Improvements. Pursue context-sensitive Complete Streets strategies that recognize the City's various neighborhood and community character and geographic complexity.															X			
Policy MI-2.4: Accessibility. Identify and evaluate the system for potential improvements to accommodate seniors and disabled persons and to comply with ADA requirements.															X			
Policy MI-2.5: Retrofit Streets. Use opportunities such as planning for capital improvement projects or new developments to retrofit streets that have excess projected capacity.															X			
Policy MI-2.6: Rights-of-Ways. Use available public rights-of-ways to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.										X					X			
Policy MI-2.7: Streetscape Aesthetics. Promote an enhanced aesthetic image through streetscaping, median improvements, and careful implementation of non-essential signage when revising infrastructure for complete streets.	X																	
Policy MI-3.1: Safety Prioritization. Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.															X			
Policy MI-3.2: Street Maintenance. Enhance roadway safety by maintaining the street system in good to excellent condition.															X			
Policy MI-3.3: Adaptive Street Strategies. Repurpose underused roadway space for safety, mobility, and public space improvements using low-cost, temporary solutions.															X			

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy MI-3.4: Test Street Improvement. Install temporary, low-cost materials to test street improvement ideas prior to incorporating permanent designs for successful projects.															X			
Policy MI-3.5: Neighborhood Traffic Control. Use neighborhood traffic control techniques to address excessive vehicle speed, excessive volumes, or pedestrian/vehicle safety concerns when it has been demonstrated through traffic and safety analysis that such controls are needed.															X			
Policy MI-3.6: Traffic Calming. Use traffic-calming techniques such as roundabouts and sidewalk extensions, more frequent and innovative crosswalks, pedestrian signals, and clearly marked bicycle lanes.							X								X			
Policy MI-3.7: Pedestrian Street Design. Explore enhanced pedestrian designs, including but not limited to wayfinding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, automatic pedestrian signals, reduced crossing lengths, wider sidewalks, and specialty paving and seating areas.										X					X			
Policy MI-3.8: Safe Routes to School. Work with school districts to implement safe routes to school plans and to expand school safety programs.															X			
Policy MI-3.9: Safety Enhancement Zones. Build upon Safety Enhancement Zones, which deploy law enforcement resources to address traffic safety, with design and educational campaigns that overall promote traffic safety.															X			

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Policy MI-3.10: Safety Education. Develop informational and educational efforts that encourage safer motorist ad pedestrian behaviors.															X			
Policy MI-3.11: Public Engagement. Engage with the community to understand needs and desires related to transportation**.**															X			
Policy MI-3.12: Transportation Data. Use available public data sets to understand problematic intersections and streets regarding collisions with pedestrians, vehicles, and bicycles.															X			
Policy MI-4.1: Prioritize Walking. Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.										X					X			
Policy MI-4.2: Active Transportation Facilities. Coordinate all active transportation facilities. Connect to nearby regional designations and facilities to ensure a seamless bicycle and pedestrian network.										X					X			
Policy MI-4.3: Connectivity. Require that new developments increase connectivity through direct and safe pedestrian and bicycling connections to the established network.							X			X					X			
Policy MI-4.4: Pedestrian Connections through Parking Lots. Require parking lots to include clearly defined paths for pedestrians' safe and convenient access from building entrances and to adjoining public sidewalks.															X			

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Policy MI-5.1: Reduce Vehicle Miles Traveled. Implement development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network, and maintaining the desired service levels for all modes of transportation.		X					X								X			
Policy MI-5.2: Sustainable Transportation and Land Use Strategies. Implement sustainable transportation and land use strategies that can effectively reduce vehicle miles traveled. Consider using vehicle daily trips as the benchmark demand for determining potential levels of parking and vehicular congestion.		X					X								X			
Policy MI-5.3: Clean Vehicles. Support the development of a network of public and private clean and/or carbon-neutral fuel vehicle charging and fueling stations.		X					X								X			
Policy MI-5.4: Traffic Mitigation. Consider a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.		X					X								X			
Policy MI-5.5: Green Streets. Encourage "green street" strategies to improve stormwater quality and protect the environment, including local washes and drainages.															X		X	
Policy MI-5.6: Repaving and Repairing. Consider the use of sustainable and carbon-neutral material when repaving, repairing, or constructing streets and other transportation facilities.							X								X			

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Policy MI-7.1: Bus Service. Improve the performance and reliability of existing and future bus service.							X								X			X
Policy MI-7.2: Transit Expansion. Encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency, Native American tribes, and other external providers within the City.							X			X					X			X
Policy MI-7.3: Transit Facilities. Require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities such as trash receptacles, signage, seating, shelters, and lighting.							X			X					X			X
Policy MI-7.4: Paratransit. Continue paratransit programs and seek to augment services from suitable partners to alleviate travel costs of seniors and/or the disabled.															X			X
Policy MI-8.1: Truck Routes. Continue to enforce the City's restrictions on truck and commercial vehicle use of non-designated routes.															X			
Policy MI-8.2: Delivery. Consider pickup and delivery activities associated with various land uses when reviewing new development, implementing projects, and improving arterials and streets.															X			
Policy MI-8.3: Evolving Delivery Approaches. Consider evolving deliver vehicle types, purpose, and operational hours that balance minimization of impacts and allow for more efficient deliveries.															X			

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Policy MI-8.4: Accommodating Trucks. Design roadway system to accommodate trucks and heavier vehicles between industrial areas and highway and freeway routes.															X			
Policy MI-9.1: Intelligent transportation Systems. Implement intelligent transportation systems strategies—such as adaptive signal controls, fiber optic communication equipment, closed circuit television cameras, real-time transit information, and real-time parking availability information—to reduce traffic delays, lower greenhouse gas emissions, improve travel times, and enhance safety for drivers, pedestrians, and cyclists.		X					X								X			
Policy MI-9.2: Autonomous Vehicles. Update, when warranted, existing transportation systems and policies as autonomous and automated vehicles and their attendant facilities are developed locally and regionally. Ensure that policies for autonomous vehicles and non-vehicular modes of travel are compatible with the Circulation and Infrastructure Element and other applicable General Plan sections.															X			
Policy MI-9.3: Funding Sources. Pursue grants and other innovative funding sources to pay for transportation improvements.							X								X			
Policy MI-9.4: Special Assessments. Support special assessment districts for street and traffic improvements.															X			
Policy MI-9.5: Mobile Technology. Encourage the use of mobile or other electronic devices with similar on-demand hailing functions, particularly for seniors, the disabled, and other mobility challenged persons.															X			

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Policy MI-10.1: Funding Transportation Network. Operate under a fiscally constrained model to fund and maintain the existing and planned transportation network.															X			
Policy MI-10.2: Expand Funding. Prioritize funding to improve the built environment for people who walk, bike, take transit, and for other vulnerable roadway users, where fiscally prudent.		X					X								X			
Policy MI-10.3: Impact Fees. Ensure that impact fees provide adequate funding for necessary transportation improvements that will benefit all travel modes, while also incentivizing development that is less dependent on expensive, new transportation.							X								X			
Policy MI-10.4: Mitigation Fees. Continue to support programs that allow for traffic mitigation fees. Seek to adjust mitigation fee programs when needed so that developments pay fair-share contributions toward improvements that result in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.		X					X								X			
Policy MI-10.5: Capital Improvement Planning. Coordinate capital improvement planning and implementation inclusive of both transportation and utility infrastructure that efficiently use rights-of-ways.															X			
Policy MI-10.6: Regional Participation. Participate and represent the City's interest in mobility-related regional planning activities and encourage acceptance of City positions on regional transportation issues.															X			

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Policy MI-11.1: Infrastructure Service. Continue to work with service providers to ensure adequate funding, service levels, equitable planning, and maintenance of utility services and physical infrastructures.																	X	
Policy MI-11.5: Development Impacts. Require new development, intensification of existing developments, and annexations to disclose and adequately mitigate for impacts on utility services.																	X	
Policy MI-11.9: Flood Prevention. Support flood prevention infrastructure on and around Mission Creek and Morongo Wash areas and other areas of the City prone to flooding.								X	X									
Policy MI-11.10: Water Supply. Protect the quality and supply of the City's water sources.									X									
Policy MI-11.11: Reduce Energy. Implement regulations and provide incentives that require public and private developments to reduce energy use over the long term.		X			X		X										X	
Policy MI-11.12: Energy Efficiency. Encourage energy-efficient design of all new projects (public and private), including appropriate structure orientation and the use of shade trees to maximize cooling and reduce fossil fuel consumption for heating and cooling.		X			X		X											
Policy MI-11.1: Minimize Solid Waste Streams. Reduce the solid waste stream taken to landfills through recycling efforts, waste diversion, and zero-waste programs.							X											

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Policy MI-11.13: Infrastructure Planning. Incorporate infrastructure planning and construction into the development greenhouse gas emissions reduction policies and programs.		X					X										X	
Policy MI-11.14: Wastewater Services Consultation. Consult with Missions Springs Water District and Coachella Valley Water District to ensure that regional collection and treatment facilities have sufficient capacity to meet future wastewater treatment needs.																	X	
Policy MI-11.15: Wastewater. Require developers to pay their fair share of costs for localized wastewater infrastructure upgrades to ensure that service levels are met.																	X	
Policy MI-11.16: Septic Tank Removal. Encourage removal of existing septic tanks and transition to sewer services.						X			X								X	
Policy H-2.1: Facilitate Affordable Housing. Facilitate housing developments that is affordable to extremely low-, very low-, low-, and moderate-income households by providing technical assistance, regulatory incentives and concessions, and financial resources as funding permits.												X						
Policy H-2.2: Housing Production. Encourage both the private and public sectors to produce or assist in the production of housing, with particular emphasis on housing affordable to persons with disabilities, elderly, large families, female-headed households with children, and people experiencing homelessness.												X						

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Policy H-2.4: Homelessness. Support regional efforts to address homelessness, including the County of Riverside Continuum of Care.												X						
Policy H-4.2: Substandard Rehabilitation. Advocate and facilitate the conservation and rehabilitation of substandard residential properties by homeowners and landlords.												X						
Policy H-4.3: Substandard Unit Compliance. Utilize code enforcement resources to bring substandard units into compliance with City codes and to improve overall housing conditions in Desert Hot Springs.												X						
Policy H-4.5: Rehabilitation Programs. Continue to facilitate access to rehabilitation programs that provide financial and technical assistance to low- and moderate-income households for the repair and rehabilitation of existing housing.												X						
Policy HW-1.5: Aging in Place. Support and expand senior housing development and supportive in-house assisted facilities for City residents. Coordinate such senior-oriented uses with the availability or construction of multimodal and universal access facilities described in the Circulation Element and with other aging-focused components of the General Plan.												X						
Policy HW-1.17: Environmental Justice. Help low-income and minority populations understand the potential for adverse pollution, noise, odor, vibrations, lighting, and glare when new commercial and industrial developments are proposed.	X																	

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Policy HW-2.1: Park Access. Distribute parks and/or recreation community facilities so that residents live within a 20-minute walking distance to such facilities.													X	X				
Policy HW-2.2: Park Standard. Maintain a park provision standard of five park acres per 1,000 residents to meet the recreational needs of the community.													X	X				
Policy HW-2.3: Recreational Programming Expansion. Balance physical activity and passive activity through the expansion of recreational programming and facilities.														X				
Policy HW-2.10: Joint-Use Facilities. Evaluate the feasibility of establishing active joint-use agreements with all private non-profit organizations that have recreation facilities, such as playfields and multi-purpose rooms.														X				
Policy HW-3.4: Park Master Plan. Regularly update the Parks Master Plan to allow for planning that provides parks facilities to serve the community.													X	X				
Policy HW-4.1: Park Grants. Pursue grant programs sponsored by public agencies, private groups, and foundations for park or open space purchases, development, and maintenance.														X				
Policy HW-4.2: Partnerships. Evaluate partnership and annexation into the Desert Recreation District to finance construction/rehabilitation and maintenance of existing and new parks that would serve City residents.														X				

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Policy HW-4.3: Sustainability. Design, construct, and maintain park areas in a manner that guarantees long-term sustainability and park maintenance.													X	X				
Policy HW-4.4: Volunteer Programs. Coordinate the establishment of an "Adopt a Park" or comparable program, allowing volunteer groups and individuals such as the Rotary Club, the Hotelier's Association, utility companies, and others to take charge of maintenance, funding, and equipment needs for a developing park.														X				
Policy HW-4.5: Fiscal Impacts. Evaluate, as part of the development review process, the fiscal impacts of a proposed park's construction and continued maintenance on the City and/or a proposed homeowners association.														X				
Policy HW-6.4: Urban Trails. Develop an expanded urban trail plan that provides greater pedestrian and cycling access to the City's civic and commercial development, and which addresses safe interaction of trail users with automobile traffic lanes.													X	X				
Policy HW-6.6: Trail Expansion. Require dedication or easements and construction of trails as part of the development review process, where appropriate.													X	X				
Policy HW-7.1: Schools to Meet Growth. Works with the school district to provide school facilities that serve the growing population of youth in Desert Hot Springs													X					
Policy HW-7.2: School District Coordination. Coordinate with the Palm Springs Unified School District and private developers for the provision of land for the construction of schools that are													X					

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placed at locations in the community convenient to all neighborhoods and students.																		
Policy HW-7.7: Library Partnerships: Encourage library partnerships with the Palm Springs Unified School District to optimize the joint use of school facilities for community educational use.													X					
Policy OS-1.1: Natural Habitat and Washes. Protect the natural habitat within the washes, including Mission Creek, Morongo Wash, and Long Canyon Wash.		X	X						X									
Policy OS-1.2: Threatened and Endangered Species. Protect threatened, endangered, or other special status plant and animal species.			X															
Policy OS-1.3: Future Development. Minimize the impact of future development on sensitive habitat and species.			X															
Policy OS-1.4: Development Regulations. Apply land use development regulations to limit development of sensitive biological areas, including biological linkages and conservation areas.			X															
Policy OS-1.5: Biological Resources Assessment. Require a biological resources assessment for any development proposal or infrastructure project located on any undeveloped/ undisturbed land.			X															
Policy OS-1.6: Development Transition. Require development adjacent to conservation areas to respect the requirements of the Coachella Valley Multispecies Habitat Conservation Plan conservation areas and to provide an			X															

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appropriate transition between conservation areas and developed areas.																		
Policy OS-1.7: Limited Public Access. Encourage appropriate access into conservation areas where allowed by the Coachella Valley Multispecies Habitat Conservation Plan to allow residents and tourists use for educational and passive recreational uses.			X										X					
Policy OS-1.8: Compatible Growth. Allow for appropriate and compatible growth and development that is consistent with applicable laws within the Coachella Valley Multispecies Habitat Conservation Plan areas.			X											X				
Policy OS-1.9: Project Review. Provide a less costly, more efficient project review process which results in greater conservation values than project-by-project, species-by-species review.			X															
Policy OS-1.10: Clear Expectation and Regulatory Predictability. Provide clear expectations and regulatory predictability for persons carrying out activities within the Coachella Valley Multispecies Habitat Conservation Plan areas.			X															
Policy OS-1.11: Maximize Connectivity. Maximize connectivity among conservation areas and avoid habitat fragmentation within to conserve biological diversity, ecological balance, and connected populations identified in the Coachella Valley Multispecies Habitat Conservation Plan.			X															

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Policy OS-1.12: Biologically Sensitive Habitat. Identify and designate biologically sensitive habitat areas aimed at preserving habitat and contributing to the recovery of species identified in the Coachella Valley Multispecies Habitat Conservation Plan.			X															
Policy OS-1.15: Broaden Cooperation. Consult with local, county, State and federal agencies, as well as private non-profits, and cooperate in efforts to maintain and broaden habitat conservation, especially where essential for the preservation of sensitive, rare, and endangered species and to increase open space linkages.			X											X				
Policy OS-1.16: Consult with Flood Control Agencies. Consult with the Riverside County Flood Control and Water Conservation District and U.S. Army Corps of Engineers to plan, design, and build flood control facilities that balance the preservation of the natural habitat and minimize flooding hazards.			X					X	X									
Policy OS-1.17: Agency Consultation. Consult with the Coachella Valley Associated Governments and other agencies to implement the Coachella Valley Multispecies Habitat Conservation Plan			X															
Policy OS-1.18: CVMSHCP Education. Consult with the Coachella Valley Association of Governments in the development and provision of education materials to developers and the public on the Coachella Valley Multispecies Habitat Conservation Plan and how they can respect the City's natural			X															

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open space areas to meet the goals of the Coachella Valley Multispecies Habitat Conservation Plan.																		
Policy OS-2.1: Air Pollution Reduction. Seek to reduce air pollution through the implementation of existing regulations and the creation of new regulations where needed.		X					X											
Policy OS-2.2: Climate Change Laws. Find creative means to comply with State laws addressing climate change.							X											
Policy OS-2.3: Minimize Air Quality Impacts. Minimize air quality impacts of new development projects on established uses.		X																
Policy OS-2.4: Air Quality Goals. Ensure that land use and transportation plans support air quality goals, with new development projects reducing vehicle miles traveled and vehicle trips.		X					X											
Policy OS-2.5: Education Programs. Partner with regional agencies to establish public education programs that provide information on ways to reduce and control emissions and make clean air choices.		X																
Policy OS-2.6: Alternative Fuels. Prioritize alternative fuel vehicles for City use. Incorporate alternative fuel charging stations into public and private development projects.		X					X											
Policy OS-2.7: Coordination. Assure the City provides updated data to the Southern California Regional Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.		X																

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Policy OS-3.1: Water Conservation. Require water conservation measures in new development, equivalent to CalGreen Tier One or similar standards.									X								X	
Policy OS-3.2: Water Conservation Incentives. Encourage residents and businesses in the City to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.									X								X	
Policy OS-3.3: Runoff Pollution. Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.									X									
Policy OS-3.5: Water District Consultation. Continue to consult with Mission Springs Water District (MSWD) on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.							X		X								X	
Policy OS-3.6: Landscaping. Require climate-appropriate landscaping for new development, and limit turf to be used as accent only.							X		X								X	
Policy OS-3.7: Gray Water. Encourage and allow for the use of gray water systems in new and existing developments for re-use of onsite water from washbasins, showers, and tubs to be used in toilet flushing and irrigation.							X		X								X	
Policy OS-3.8: Recycled Water. Where feasible, require new industrial and commercial developments to install a dual pipe water system to hook up to future Mission Springs Water District							X		X								X	

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recycled water supply when available for common area irrigation and for individual property's irrigation.																		
Policy OS-3.9: Groundwater Contamination. Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources and confer with other appropriate agencies to assure adequate review.									X								X	
Policy OS-3.10: Site Drainage. Require that new development incorporate features into site drainage plans that would reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins.									X								X	
Policy OS-4.1: Energy Conservation. Seek to incorporate energy conservation measures into new development projects.					X		X											
Policy OS-4.2: Education and Outreach. Continue community education and outreach regarding energy conservation.					X													
Policy OS-4.3: Rooftop Solar Projects. Streamline solar panel permits for small-scale residential and commercial business rooftop projects by removing discretionary planning permits or allowing approval over the counter.					X		X											
Policy OS-4.4: Solar Energy Systems. Encourage the use of solar energy systems or any other technologies that similarly reduce the use of power from the grid in residential and commercial uses.		X			X		X											

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Policy OS-4.5: Solar Farms. Allow solar energy farms that minimize disturbing desert environment.		X			X		X											
Policy OS-4.6: City Vehicle Replacement. When City vehicles are replaced, assure that they are electric or alternative fuel vehicles when possible.		X					X											
Policy OS-4.7: Alternative Electricity Options. Continue to explore, assist, and encourage alternative electricity options such as wind or small-scale solar energy facilities.					X		X											
Policy OS-4.9: Windmill Development. Review all public and private requests for land use designation changes to assure that no change hinders the City's ability to allow and facilitate windmill development, consistent with the City's standards.					X													
Policy OS-5.1: Recycling Services. Provide residents and businesses with comprehensive and efficient solid waste recycling services that, at a minimum, meet State diversion mandates.																	X	
Policy OS-5.2: Waste Reduction. Continue to require strict construction waste reduction through programs, education, and regulations.							X										X	
Policy OS-6.1: Sustainable Construction. Encourage sustainable construction practices and the use of energy-saving technology within buildings. Consider establishing a green building program that draws from the LEED (Leadership in Energy & Environmental Design) standards.		X			X		X											

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Policy OS-6.2: Green Building. Require LEED or similar building efficiency certifications for all new public facilities and buildings. Encourage similar green building certifications for private development projects.		X			X		X											
Policy OS-7.1: Scenic Corridors. Limit the impact of development on scenic corridors, vistas, and resources through enforcement of development regulations. Preserve scenic routes in accordance with Caltrans' Scenic Highways Plan.	X																	
Policy OS-7.2: Nighttime Views. Preserve the quality of nighttime views through required shielding and downward-facing lights.	X																	
Policy OS-7.3: Drought-Tolerant Landscaping. Review landscape plans and require that climate appropriate be used throughout the City in public and private landscape plans.																	X	
Policy OS-7.4: Street Trees. Encourage new public street tree plantings in established neighborhoods, and require all new development to provide climate-appropriate street trees.							X											
Policy OS-7.8: Scenic Vistas. Seek opportunities to create public open space areas with scenic vistas that all can enjoy.	X												X	X				
Policy OS-7.9: Hillside Guidelines. Develop guidelines and standards for development on hillsides and ridgelines within the City. Coordinate with adjacent jurisdictions on standards for development on hillsides and ridgelines that are part of the City's viewshed. These guidelines and standards should be included in an amendment to the City's Hillside Grading Ordinance.	X																	

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Policy OS 7.10: Dark Sky Regulations. Adopt dark sky regulations that limit the amount and type of lighting within developments.	X																	
Policy OS-8.1: Historic Preservation. Continue to assess the historical significance of additional properties and encourage the preservation of public and private buildings which are of local, historical, or cultural importance.				X														
Policy OS-8.2: Local Historic Groups. Support the work of local historic groups to identify, designate, and preserve local structures and sites of historic interest and importance.				X														
Policy OS-8.3: Marketing. Market and promote historic and cultural resources in the community, including the Cabot's Pueblo Museum, as a means of bolstering economic development.				X														
Policy OS-8.4: Cultural Preservation Balance. Balance cultural preservation goals with the interest of private property owners.				X														
Policy OS-8.5: Archaeological Resources. Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.				X												X		
Policy OS-8.6: Cultural Resources. Review all development and redevelopment proposals for the possibility of cultural resources. This may include the need for individual cultural resource studies, including subsurface investigations.				X												X		

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Policy OS-8.7: Paleontological Resources. Coordinate CEQA review of proposed developments as either being identified as having a High A or Undetermined potential for unearthing paleontological resources.				X		X												
Policy SN-1.1: Police and Fire Protection. Provide a high level of police and fire protection by providing a level of funding necessary to assure that additional staff and equipment are provided to address any City growth.													X					X
Policy SN-1.2: Level of Service. Periodically review the level, quality, innovation, and cost effectiveness of police and fire protection services, including contract services, and remain flexibility when considering the most effective means of providing these services to the community.													X					X
Policy SN-1.3: New Development Impacts. Require all new and improved developments to be reviewed for their impact on community safety and the provision of police and fire protection services.													X					X
Policy SN-1.4: Development Proposal Review. Require development proposals to be transmitted to the Police Department and the Fire Marshal for review. Any input shall be incorporated into project design or conditions of approval, as appropriate.													X					X
Policy SN-1.5: Vehicle Access. Require that emergency, police, fire, and paramedic vehicle access be provided with all new developments to the satisfaction of the Fire Marshal and Police Chief.								X										X

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-1.6: Sufficient Water Fire Flows. The City will coordinate with the Mission Springs Water District to assure sufficient water supplies and pressures are available to provide adequate fire flows for all existing and proposed development.													X					X
Policy SN-1.7: Adequate Fire Resources. Ensure that the City has adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.													X					X
Policy SN-1.8: Fire Enforcement. Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.																		X
Policy SN-1.9: Onsite Wildfire Prevention Measures. Require special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exist, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, or excessively dry brush.								X					X					X
Policy SN-1.10: Fire Department Inspections. Require commercial, industrial, and institutional buildings and multi-family development to be periodically inspected by the Fire Department to assure compliance with applicable fire codes and to educate building and development managers on fire safety issues.																		X

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-1.11: Fire Suppression Systems. Regulate and enforce the installation of fire protection water system standards for all new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.																		X
Policy SN-1.12: National Fire Guidelines. Strive to comply with and maintain National Fire Protection Association guidelines, including Standard 1710 requirements for emergency response times and staffing of fire fighter crews responding to emergencies.																		X
Policy SN-1.13: Consistent Level of Service as City Grows. The City shall make every effort to assure the same or greater level of fire protection as provided to City residents as City limits are expanded.																		X
Policy SN-1.14: Additional Fire Station. Pursue new fire stations facilities in areas of high needs and future development growth.													X					X
Policy SN-1.15: Fire Department Review. Continue to involve the Fire Department in the development review process to ensure that fire safety is addressed in new and modified developments.													X					X
Policy SN-1.16: Minimize Development in Severity Zones. Minimize new residential developments within Very High Fire Hazard Severity Zones.																		X

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-1.17: Essential Public Facilities. Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards, where feasible.																		X
Policy SN-1.18: Government Code. New development will adhere to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones.																		X
Policy SN-1.19: Fire Safe Regulations. New development will adhere to the latest Board of Forestry and Fire Protection Fire Safe Regulations.																		X
Policy SN-1.20: **Building and Fire Codes**. New development will adhere to all requirements in the California Building Code and California Fire Code.																		X
Policy SN-1.21: **Fire Protection Plan.** Require new development within Very High Fire Hazard Severity Zones to submit a fire protection plan that addresses landscape/fuel modification installation, incorporate open areas to complement defensible spaces, recognize possible refuge areas, and identify multiple ingress and egress routes.																		X
Policy SN-1.22: **Fire Risk Pre-Plans**. Require new development within Very High Fire Hazard Severity Zones to prepare pre-plans for fire risk areas that address resident evacuation and to effectively communicate those plans, including identifying the location and direction of evacuation routes.																		X

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-1.23: Roadside Fuel Reduction Plan. Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.																		X
Policy SN-1.24:**Defensible Space Clearances**. Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.																		X
Policy SN-1.25:**Non-Conforming Development.** Conduct a survey, as feasible, of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring them into compliance with the most current building and fire safety standards.																		X
Policy SN-1.26: At-Risk Occupants. Conduct a survey, as feasible, of existing residential structures within the Very High Fire Hazard Severity Zones to determine at-risk occupants such as elderly care facilities, shut-ins, or schools that would pose a significant concern for evacuation and/or shelter-in-place during a wildfire event; develop a plan, as feasible, to accommodate these target occupants.																		X
Policy SN-2.1: Adequate Police Resources. Maintain adequate resources (stations, personnel, and equipment) to enable the Police Department to meet response time standards, keep pace with growth, and provide high levels of service.													X					

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-2.2: Staff Ratio. Strive to maintain a police staffing ratio of at least 1.5 sworn officers per 1,000 residents.													X					
Policy SN-2.3: Police Response Times. Strive to meet the three-minute response time for priority one and priority two calls for service.													X					
Policy SN-3.1: Hazardous Materials Discharge. Prevent unauthorized discharges of hazardous materials and promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials.								X										
Policy SN-3.2: Use and Storage of Hazardous Materials. Require the general location and siting of facilities which involve the use and/or storage of hazardous, highly flammable, or explosive materials to be designed in such a manner that assures the highest level of safety in strict conformance with fire codes and all other applicable codes and regulations.								X										
Policy SN-3.3: Hazardous Waste Siting. Discourage the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school or use that supports sensitive receptors. Mitigation shall be incorporated in any project that may expose sensitive receptors to hazardous materials or waste to avoid or minimize health impacts.								X										

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-3.4: Hazardous Waste Generation. Encourage businesses, particularly cannabis-related businesses, to utilize practices and technologies that will reduce the generation of hazardous wastes.								X										
Policy SN-3.5: Phase I Site Assessment. Require a Phase I Environmental Site Assessment prior to entitlement approval for development or redevelopment on any site previously developed with industrial, commercial, or energy uses, or sites suspected of contamination due to illegal dumping, or other factors.								X										
Policy SN-3.6: Consultation. Continue to consult with Federal, State, and County agencies to reduce risks to residents associated with the use or transport of hazardous materials.								X										
Policy SN-3.8: Permitting. Ensure proper permitting of hazardous materials storage, use, and disposal with the Riverside County Fire Department and appropriate county, State, and federal agencies.								X										
Policy SN-3.9: Permitting Process. Continue to implement and update as necessary, existing permitting process between the City, Riverside County Environmental Health, and Riverside County Hazardous Materials Team for the establishment of facilities, which manufacture, store, use or dispose of hazardous and toxic materials within the community or adjacent areas.								X										
Policy SN-3.10: Minimize Exposure. Minimize exposure of critical facilities and residences to hazardous materials.								X										

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-6.1: Alquist-Priolo Act. Implement the Alquist-Priolo Act and Public Resources Code Section 2621 to prohibit new structures within earthquake fault zones.						X		X										
Policy SN-6.2: Seismic Standards. Continue to implement applicable California Building Code standards that provide safety from seismic events, including but not limited to earthquakes, landslides, and liquefaction.						X		X										
Policy SN-6.3: Seismic Review. Review and determine the adequacy of geotechnical and fault hazard studies prepared within the City by a County Geologist, the State Geologist, or a contract geological engineer.						X		X										
Policy SN-6.4: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction to or other forms of ground failure.						X		X										
Policy SN-6.5: Fault Zones. Accept the Riverside County designated fault zone for the Blind Canyon Fault and apply standard measures as would be required of any California Division of Mines and Geology designated fault zone.						X		X										
Policy SN-6.6: Utilities and Vital Service Providers. Consult with utilities and vital service providers to confirm the design of existing and proposed infrastructure to withstand substantial seismic events and to strengthen or relocate facilities to safeguard water, electricity, natural gas, and other transmission and distribution systems.						X		X									X	

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-6.7: Wind-Driver Erosion. Continue to implement control measures to prevent wind-driven and water-driven erosion from construction activities and vacant parcels.						X												
Policy SN-6.8: Local Hazard Mitigation Plan. Maintain the City's Local Hazard Mitigation Plan as an extension of the General Plan Safety Element in conjunction with Riverside County and other key organizations.						X		X										
Policy SN-6.9: CERT. Continue to assure community education through the Riverside County Community Emergency Response (CERT) trainings and certifications.						X												
Policy SN-7.1: Flood Control Improvements. Encourage developments to coordinate with adjacent developments and property owners in the planning and funding of flood control improvements where a Master Drainage Plan or Area Drainage Plan does not exist.																	X	X
Policy SN-7.3: Coordination. Coordinate with Riverside County Flood Control and Water Conservation District to plan and provide adequate flood control protection.								X									X	
Policy SN-7.4: Master Drainage Plan. Expand the Desert Hot Springs Master Drainage Plan westerly and southerly to address drainage and flooding concerns of new development on the Mission Creek and Morongo Wash drainage areas.								X									X	X
Policy SN-7.7: Hydrological Studies. Require new development proposals to provide hydrological studies prepared by a State-certified civil engineer for any project that would change existing site runoff. Such studies shall assess the impact																	X	

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
of any change in runoff that could result in increased erosion and sedimentation potential or flooding of downstream properties.																		
Policy SN-7.8: Appropriate Flood Plain Uses. Promote uses that are more resilient to flooding—such as parks, trails, golf and other recreational features—in floodplain areas.													X	X				
Policy SN-8.1: Sensitive Land Uses. Protect noise-sensitive land uses from high noise levels from both existing and future noise sources. Noise-sensitive uses include residences, resorts and community open space, schools, libraries, churches, hospitals, and convalescent homes.											X							
Policy SN-8.2: Noise Impacts. Assess proposed development and associated traffic for the potential to generate adverse and incompatible noise impacts. Require mitigation for identified impacts.											X							
Policy SN-8.3: Noise Mitigation. Require the installation of sound walls, earthen berms, wall, window noise insulation, and other mitigation measures for new development in areas that may exceed the City's noise limit standards.											X							
Policy SN-8.4: Circulation Pattern. Encourage a Citywide circulation pattern that places primary traffic loads on major arterials and preserves local neighborhood noise environments by controlling traffic speeds to the greatest extent practical.											X							

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-8.5: Compatible Land Uses. Designate land uses that are compatible with higher noise levels adjacent to the major arterial roads and highways, the Interstate 10 corridor, and designated industrial lands.											X							
Policy SN-8.6: Truck Routes. Designate primary truck routes and clearly mark these routes through the City. Other than vehicles providing local service, construction traffic, and delivery trucks, through traffic shall be limited to those as detailed in the Circulation chapter.											X							
Policy SN-8.7: Wind Farm Noise Impacts. Strive to minimize noise impacts from wind farm development at levels compatible with residential and other sensitive land uses.											X							
Policy SN-8.8: Interior Noise Standards. Enforce quantitative exterior and interior noise standards from Table CS-1 for various types of sensitive land uses.											X							
Policy SN-8.9: Exterior Noise Standards. Allow for an exceedance of exterior noise standards for all land use types as long as adequate mitigation is provided for interior noise reduction.											X							
Policy SN-8.10: Noise-Generating Uses. Require specific design for noise-generating uses such as restaurants, bars, and industrial business located near sensitive uses such as residential.											X							

Policy*	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Greenhouse gases	Hazards and Hazardous Materials	Hydrology and Water Quality	Land Use and Planning	Noise	Population and Housing	Public Services	Recreation	Transportation and traffic	Tribal Cultural Resources	Utilities and Service Systems	Wildfire
Policy SN-8.11: Noise Level Compliance. Require new development to monitor and document compliance with all applicable noise level limits in areas subject to potentially significant noise impacts.											X							
Policy SN-8.12: Delivery or Service Noise Generation. Limit delivery or service hours for businesses with potential noise generating features such as trash bins, docks, loading areas that are located near sensitive uses such as residences, schools, and hospitals.											X							
Policy SN-8.13: Noise Reducing Pavement. Investigate the use of noise-reducing paving materials such as rubberized asphalt for road surfacing projects.											X							
Policy SN-8.14: Noise Complaint Response. Respond timely to noise complaints and provide monitoring when necessary.											X							

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4.1 – Aesthetics

The following section discusses potential impacts to aesthetics and the potential for adverse changes in the visual character and natural scenic environment that could result from implementing the proposed land use and urban design policies. Potential impacts associated with light and glare are also addressed. Scenic and visual resources in the Planning Area were identified in consideration of the community's perception and values of aesthetics.

4.1.1 Environmental Setting

Desert Hot Springs is an area with views of the desert valley landscape within the Coachella Valley as well as the surrounding mountain ranges, which can be snow-capped during the winter months. The City slopes gently upward from Interstate 10 up to the hills and mountains to the north, creating superior views across the City which overlooks Palm Springs to the south and the rest of the Coachella Valley to the southeast. The Sand to Snow National Monument and Joshua Tree National Park provides a scenic backdrop for the Planning Area, with dramatic views of mountainous desert terrain.

Scenic Vistas: Scenic vistas are defined in this document as natural landscapes that provide views of unique flora, geologic or other natural features that are generally free from urban intrusions. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces and waterbodies. Scenic vistas generally play a large role in the way a community defines itself and also affects development patterns as projects are designed to take advantage of viewsheds. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of the vista. Second, the vista itself may be altered (i.e., development on a scenic hillside).

The City adjoins the Sand to Snow National Monument and Joshua Tree National Park to the north. Overall, the scenic vistas provide a unique resource for the residents of and visitors to Desert Hot Springs. In addition, there are panoramic views of the natural desert landscape throughout the Planning Area, and scenic views of the Little San Bernardino Mountains to the north and west as well as Mt. San Jacinto to the south on the opposite side of the valley.

Protection of these views has long been a priority, and most homes and new developments in the Planning Area have been one story, preserving these views.

Scenic Resources: While scenic vistas form a complete viewshed, scenic resources are occurrences of aesthetically pleasing features. Examples of the natural scenic resources include rock outcroppings, trees, prominent ridgelines, slopes and hilltops. The multiple drainage areas that cross through the City provide habitat for trees and shrubs, creating distinguishable views typical of the desert environment.

Scenic resources can also be man-made, such as architecturally distinctive or historic buildings. As of 2019, no National Register listed properties or California Historic Landmarks had been recorded. Cabot Yerxa's 1913 "discovery of hot well water" located in front of Cabot's Old Indian Pueblo Museum has been designated a California Point of Historic Interest. The Pueblo houses Cabot's Pueblo Museum, a Hopi-style building constructed by Cabot Yerxa, who was one of the first settlers in the area and is credited with the discovery of the City's hot water aquifer.

CA State Route 62 begins at a freeway to freeway intersection with I-10 and connects with AZ State Route 95 in Parker, Arizona. Route 62 passes through the southwestern portion of the Planning Area as well as the city limits in the northwestern portion of the Planning Area. The highway is a designated State Scenic Highway. See section 4.1.2 Regulatory Framework for more information on Scenic Highways.

Night Skies: The Planning Area is generally characterized by development concentrated within the core of the City along major thoroughfares in the northwest portion of the Planning Area with scattered development across the remaining Planning Area. Night skies and stars are readily visible in sparsely developed areas, and less so approaching the developed central areas of the Planning Area. Currently, the City has enacted specific regulations protecting nighttime views in Section 17.40.170(A) of the municipal code: The Section provides standards for outdoor lighting to maintain ambient lighting levels to enhance the City's character and charm and maintain dark skies; provide good visibility while maintaining minimum glare and spillage onto other properties, to protecting nighttime enjoyment of the night skies.

4.1.2 Regulatory Framework

California Scenic Highway Program: Created by the California Legislature in 1963**,** the Scenic Highway Program was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A scenic highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a City or County nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent and visible to a motorist on the highway. State Laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

Desert Hot Springs Zoning Ordinance: Glare is addressed under Section 17.40.140 of the Municipal Code which states "No glare incidental to any use shall be visible beyond any boundary line of the parcel". Residential, Commercial, and Industrial zones, standards are included for lighting that generally require sufficient lighting for security purposes, to be stationary and deflected away from adjacent properties, and energy efficient. In addition, Section 17.40.170 of the Municipal Code provides general standards for outdoor lighting. Standards are included for shielding and filtering of certain types of light sources and illumination of buildings.

Desert Hot Springs General Plan

The Open Space and Land Use and Community Design Elements of the General Plan Update addresses aesthetic resources. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to scenic resources, visual character, and light and glare are addressed in the following elements: Land Use and Community Development, Mobility and Infrastructure, Open Space and Natural Resources, and Health and Wellness. Several policies are identified in these Elements to maintain and enhance the visual character of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-1.3: Compatibility
- Policy LU-2.3: Consistent Development
- Policy LU-10.5: Preserve Hillside Areas
- Policy LU-11.1: Efficient Land Use Patterns

- Policy LU-13.1: Natural Landforms
- Policy LU-13.2: Appropriate Architectural Design.
- Policy LU-13.9: Community Image.
- Policy LU-13.10: Visual Character.
- Policy LU-13.11: Trees and Landscaping.
- Policy MI-2.7: Streetscape Aesthetics
- Policy OS-7.1: Scenic Corridors
- Policy OS-7.2: Nighttime Views
- Policy OS-7.8: Scenic Vistas
- Policy OS-7.9: Hillside Guidelines
- Policy OS-7.10: Dark Sky Regulations
- Policy HW-1.17: Environmental Justice

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.1.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Has a substantial adverse effect on a scenic vista?
B. Substantially damages scenic resources, including but not limited to trees, rock outcroppings or historic buildings within a state scenic highway?
C. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
D. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?
E. Would the project cause substantial adverse cumulative impacts with respect to aesthetics?

4.1.4 Environmental Impacts

A. Has a substantial adverse effect on a scenic vista?

With implementation of the GPU, views of the Mt. San Jacinto range and the Little San Bernardino Mountains to the north and west could be obstructed for residents in the central portion of the Planning Area, where most new development would be located. The low-density character of this area provides generally uninterrupted views of these resources, and if increases in building heights or building intensity is permitted, these buildings may obstruct existing views. This area is most susceptible due to the relatively flat topography compared to the remaining Planning Area. However, the amount of residences is fairly limited in the central portion of the Planning Area.

To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City, while requiring preservation of natural habitat and desert washes in the selection of building sites. In accordance with GPU proposed policies, the City will coordinate with adjacent jurisdictions that are part of the viewshed regarding development standards for hillsides and ridgelines (GPU LU-13.2 Appropriate Architectural Design, Policy LU-13.9: Community Image).

Open Space and Land Use policies propose finding opportunities to create public open space areas like parks and recreation facilities to preserve scenic vistas that all can enjoy (policy OS-7.8 Scenic Vistas). To protect dark sky resources, the City is proposing policies that limit the amount and type of lighting within new developments (OS-7.2 Nighttime Views, OS-7.10 Dark Sky Regulations).

These policies (LU-2.3 Consistent Development, LU-10.5 Preserve Hillside Areas) reduce impacts to scenic vistas by avoiding extreme changes in the scale of adjacent development sites, while protecting and maintaining the existing views of the surrounding hillsides and mountains (Policy OS-7.9 Hillside Guidelines).

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation is required.

B. Substantially damages scenic resources, including but not limited to trees, rock outcroppings, or historic buildings within a state scenic highway?

State Route 62, a state designated scenic highway is located to the west of the City. Potential development in proximity to Highway 62 could have an impact on scenic views and vistas. Multi-story buildings, high structures, and billboards or other large signs could potentially block the view from the highway. The impact of potential new large billboard style signs can be significant to scenic vistas, in particular along scenic highways (Policies MI-2.7 Streetscape Aesthetics; LU-13.11 Natural Landforms). The location and size of signs are strictly regulated by Chapter 17.45 of the City's Municipal Code in order to avoid detracting from the scenic views and vistas. Large billboard signs that could impact scenic vistas are not permitted adjacent to a scenic highway nor in a habitat conservation area. The City's Zoning Ordinance limits billboard signs to commercial and industrial land use districts and are expressly prohibited if oriented towards and primarily viewed from all other roads, streets, boulevards, lanes, or other public rights-of-way.

The City is proposing natural landform policies to encourage development that respects natural landforms and notable vegetation on a site (OS-7.8 Scenic Vistas). Overall, the proposed General Plan does not include any aspect that would result in damaging scenic resources, such as trees, rock outcroppings, and historic buildings in proximity to a state scenic highway as proposed in Policy OS-7.1 Scenic Corridors.

Level of Significance Before Mitigation

Less than significant

<u>*Mitigation Measures*</u>

No mitigation is required.

C. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The proposed General Plan chapters have been designed to protect and enhance the visual character of the existing community and proposed development under the General Plan Update and would not directly result in degradation of the area's scenic and visual character. See 4.1.4.A above for proposed policies to preserve public vantage points.

The General Plan Update proposes policies concerning compatibility, including requiring that new development be visually and functionally compatible with established residential neighborhoods, industrial and commercial areas, and natural desert habitat areas. Regarding residential development, the City is proposing policies to ensure a consistent and compatible residential land use pattern as new neighborhoods develop and expand (Policies LU-1.3 Compatibility; LU-2.3, Consistent Development). These policies are aligned with chapter 17.08 of the City's Municipal Code, in which preservation of natural scenic beauty is incorporated into planning and design.

The proposed General Plan includes policies where new private and public development will be consistent with the existing natural and urban character, while still providing variety and visual interest (Policy LU-11.1 Efficient Land Use Patterns). These policies reduce impacts to the visual character and will help maintain the existing views in non-urbanized areas (Policy LU-13.10 Visual Character).

<u>*Level of Significance Before Mitigation*</u>

Less than significant

<u>*Mitigation Measures*</u>

No mitigation is required.

D. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Population growth anticipated under the General Plan Update would lead to new developments throughout the Planning Area. These developments could produce new sources of light and/or glare that may potentially cause significant impacts to daytime and/or nighttime views. Excessive or inappropriately directed lighting can adversely impact nighttime views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). See question A for proposed open space policies regarding night sky resources and lighting.

Outdoor lighting is regulated by 17.40.140 of the City's Municipal Code. This chapter requires minimizing the impacts of new sources of light and glare so that they do not extend off the boundary of the parcel. Administration of policies and regulations through the City's routine design review and plan check procedures will ensure that new light sources associated with future development are appropriately designed and maintained to minimize impacts associated with light and glare. The impact is less than significant.

Level of Significance Before Mitigation

Less than significant

Mitigation Measures

No mitigation is required.

E. Would the project cause substantial adverse cumulative impacts with respect to aesthetics?

The GPU policies listed in section 4.1.2 Regulatory Framework are designed to protect aesthetics and visual resources in the Planning Area. These goals and policies reduce the potential for environmental damage associated with development under the GPU.

No cumulatively considerable contribution to a significant cumulative impact has been identified.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation is required.

4.1.5 References

City of Desert Hot Springs General Plan Update, April 2019.

QCode, City of Desert Hot Springs, CA Municipal Code.
http://www.qcode.us/codes/deserthotsprings/ [Accessed August 7, 2019]

4.2 – Agricultural and Forestry Resources

The following section discusses potential impacts to the agricultural and forest resources for the Desert Hot Springs General Plan Update (GPU). This section addresses the regulatory framework necessary to evaluate specific impacts resulting from the GPU. This section recommends mitigation measures, if any, for impacts specific to agricultural and forestry resources concerns.

4.2.1 Environmental Setting

There are no existing areas dedicated to the conservation and protection of agricultural and forestry resources.

Important Farmland
The California Department of Conservation maps all lands in the State that are considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance or Grazing Lands. Most of the Planning Area, excluding a portion of the western Planning Area, has been mapped by the California Department of Conservation for agricultural resources. The California Department of Conservation for agricultural resources indicates that there is no designated type of farmland within the Desert Hot Springs Planning Area, as farming is not active in the northwestern area of the Coachella Valley. The Desert Hot Springs Planning Area only contains land designated as either Other or Urban-Built Up (California Department of Conservation, 2016).

Existing Agricultural Uses
The Planning Area does not include any existing commercial agricultural land use. According to field surveys conducted in 2018, farming activity is currently not present in the City or in its Sphere of Influence (SOI). Unlike other areas of the Coachella Valley, Desert Hot Springs has historically not attracted development of farming. Commercial cannabis cultivation is active in the City, but this agricultural activity is conducted indoors to allow for complete control of the growing environment with the use of artificial lighting, imported soils and fertilizers, and controlled irrigation. Outdoor cannabis cultivation is not practiced in Desert Hot Springs. County land use maps for the area show no lands designated for agricultural use; in fact, there are no lands designated for agricultural use in the Western Coachella Valley area. However, this would not preclude very small operations existing in the SOI. Regardless, agriculture is not a substantial use in the Planning Area

Agricultural Zoning
The Planning Area does not include any agricultural land use designations or zoning. However, Chapter 159.04 and 159.06 of the City's Zoning Ordinance allows for agricultural uses within the R-E, R-L, R-M, R-VS zones and for commercial gardening and crop production in the C-N, C-C, C-G, I-L, I-M, and I-E zones. There are also no lands zoned as agricultural in the SOI, under the jurisdiction of Riverside County.

Williamson Act Contracts
According to the California Department of Conservation (2019), Williamson Act reports and statistics, there are no Williamson Act Land Conservation Contract lands in the City, the Sphere of Influence, or surrounding areas. The lands in Desert Hot Springs are classified as Non-Enrolled Land or Urban and Built-Up Land.

Forest Resources
Forest land is defined in Public Resources Code Section 12220(g) as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits". There are no lands in the Planning Area that comply with the definition of "Forest Land", consequently, there are no forest resources within the Planning Area. Small portions of the northern and western areas of the Planning Area have been mapped by the Department of Conservation and California Department of Forestry and Fire Protection for Forest Resources (California Department of Forestry and Fire Protection, 2019). The Planning Area does not contain any Forest Resource areas as designated by the mapping. Vegetation within the Planning Area generally consists of woody and succulent scrubs with herbs, few grasses and dry wash woodlands isolated along portions of drainage areas. Desert Hot Springs experiences hot summers, mild winters, and irregular rainfall (nine inches or less) which contributes to the lack of forest resources in the area. The Planning Area does not contain any concentration of native tree cover that could be considered as a forest resource as defined by the Public Resources Code Section 12220(g).

4.2.2 Regulatory Framework

Farmland Mapping and Monitoring Program: Important farmland maps are compiled by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), pursuant to the provisions of Section 65570 of the California Government Code. These maps and programs utilize data from the USDA Natural Resource Conservation Service (NRCS) soil survey and current land use information to monitor conversion of important farmland to other uses. The majority of the Planning Area has been mapped by the California Department of Conservation, although no type of farmland is designated with the Planning Area, as farming is not active in the northwestern area of the Coachella Valley.

California Land Conservation Act/Williamson Act Contract Program: The California Land Conservation Act of 1965, also known as the Williamson Act, was adopted in 1965. This voluntary program allows local governments to enter into contracts with private landowners for the purpose of having their property assessed on the basis of its agricultural production rather than at the current market value. The property owner is thus relieved of having to pay higher property taxes, resulting from conversion of nearby lands to urban uses as long as the contracted land remains in agricultural or related open space use. The purpose of the Williamson Act is to encourage property owners to continue to farm their land with a tax incentive, and to prevent the premature conversion of farmland into non-agriculture use. Participation requires that the area consist of 100 contiguous acres of agricultural land under one or more ownerships.

Upon approval of an application by the Board of Supervisors, the agricultural preserve is established, and the land within the preserve is restricted to agricultural and compatible uses for ten (10) years. Williamson Act contracts are automatically renewed annually for an additional one-year period, unless the property owner applies for non-renewal or early cancellation. The Williamson Act also contains limited provisions for cancellation of contracts. Specific findings regarding the non-viability of the agricultural use must be made, and a substantial penalty for the cancellation is assessed. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the act within their jurisdiction. Desert Hot Springs is in Riverside County. Riverside County has some land under the Williamson Act near the Salton Sea. As noted previously, there are no Williamson Act Contracts within the Planning Area.

Desert Hot Springs General Plan: There are no policies that apply directly to Agricultural Resources and Forestry Resources as they relate to CEQA. The Draft Desert Hot Springs General Plan Land Use Plan does not propose any future farmland or forest land.

4.2.3 Thresholds of Significance

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects lead agencies may refer to information complied by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

B. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

C. Conflict with existing zoning for, or cause rezoning of forest land (as defined by Public Resources Code 12220(g)). Timberland (as defined by Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

D. Result in the loss of forest land or conversion of forest land to non-forest use?

E. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

F. Would the project cause substantial adverse cumulative impacts with respect to agricultural and forest resources?

4.2.4 Environmental Impacts

A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

As discussed earlier in this section, the Planning Area was mapped by the California Department of Conservation in 2016 which indicated that the Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance), by the California Department of Conservation. Furthermore, only small-scale commercial outdoor agricultural uses have historically occurred within the Planning Area. Lastly, the proposed Land Use and Community Design Element of the General Plan does not contain any goals or policies pertaining to the use of farmland. Therefore, the project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and have no impact.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

B. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

As discussed earlier in this section, the Planning Area was mapped by the California Department of Conservation. The Planning Area is classified as Non-Williamson Act Land, including Non-Enrolled Land and Urban and Built-Up Land; therefore, adoption of the General Plan update would have no effect on any Williamson Act contracts. Section 17.12.020 (Table 17.12.01), does allow commercial gardening and crop production in some commercial and industrial zones.

The Planning Area does not contain any Williamson Act land. Therefore, there will be no impact.

Level of Significance Before Mitigation

No Impact.

Mitigation Measures

No mitigation is required.

C. Conflict with existing zoning for, or cause rezoning of forest land (as defined by Public Resources Code 12220(g)). Timberland (as defined by Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section

The Planning Area currently does not have any land zoned or utilized primarily for agricultural or forestry purposes. Utilizing the Fire and Resource Important Farmland Map, the Planning Area does not have any land zoned or utilized primarily for forestry purposed. In addition, the proposed Land Use and Community Design Element of the Desert Hot Springs General Plan does not have contain any goals or policies pertaining to forest land or timberland zoned areas. The adoption of the General Plan update would not convert lands zoned primarily for agricultural or forestry within the Planning Area.

There are no existing lands defined as Timberland in the Planning Area. Therefore, the project will not impact Timberland zoned lands. There would be no impact.

Level of Significance Before Mitigation

No Impact

Mitigation Measures

No Mitigation is required

D. Result in the loss of forest land or conversion of forest land to non-forest use?

As discussed earlier in section 4.3.4 (a)(b)(c)), the Planning Area currently does not have any land zoned or utilized primarily for agricultural or forestry purposes. Utilizing the Fire and Resource Assessment Program Land Cover Map and the California Department of Conservation Important Farmland Map, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. The adoption of the General Plan update would not convert lands zoned primarily for agricultural or forestry within the Planning Area.

There are no lands zoned primarily for agricultural or forestry uses that exist within the Planning Area. Therefore, the project will not result in the loss of forest land or conversion of forest land to non-forest use. There would be no impact.

Level of Significance Before Mitigation

No Impact

Mitigation Measures

No mitigation is required

E. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?

As discussed earlier in section 4.2.4 (a)(b)(c)), the Planning Area currently does not have any land zoned or utilized primarily for agricultural or forestry purposes. Utilizing the Fire and Resource Assessment Program Land Cover Map and the California Department of Conservation Important Farmland Map, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. The adoption of the General Plan update would not convert lands zoned primarily for agricultural or forestry within the Planning Area.

The Planning Area does not currently have any lands zoned for commercial agricultural or forestry purposes. Section 17.12.020 (Table 17.12.01), does allow commercial gardening and crop production in some commercial and industrial zones. Therefore, the proposed project would not change any existing environment that could result in conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use. There would be no impact.

Level of Significance Before Mitigation

No Impact

Mitigation Measures

No mitigation is required

F. Would the project cause substantial adverse cumulative impacts with respect to agricultural and forest resources?

The Planning Area does not have any agricultural and/or forest resources. As such, there would be no cumulative impacts with respect to these resources.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

4.2.5 References

California Department of Conservation (2016). Central Riverside County Important Farmland 2016 map. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/riv16_c.pdf [Accessed June 24, 2019]

California Department of Conservation (2019). Riverside County Williamson Act Lands 2015/2016. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/ [Accessed June 24, 2019]

California Department of Forestry and Fire Protection (2006). Land Cover Maps 2006, http://frap.fire.ca.gov/data/frapgismaps/pdfs/fvegwhr13b_map.pdf [Accessed June 24, 2019]

4.3 – Air Quality

This section describes the existing air quality setting of the Desert Hot Springs General Plan Update Planning Area, identifies associated regulatory requirements; evaluates the Project's potential air quality impacts, and identifies mitigation measures to reduce the Project's potentially significant air quality impacts. The methodologies and assumptions used in the preparation of this section follow the CEQA Guidelines developed by the South Coast Air Quality Management District (SCAQMD, 2019a). Information on existing air quality conditions, federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This EIR air quality analysis has been closely coordinated with the energy and greenhouse gas analyses contained in Sections 4.6 and 4.8 of this EIR. Please refer to Appendix D for detailed air quality and greenhouse gas emissions estimates (MIG, 2019). As described in Section 4.3.4, potential Project impacts with respect to air quality include conflict with or obstruction of the applicable air quality plan, cumulatively considerable net increases in criteria pollutants, exposure of sensitive receptors to substantial pollutant concentrations, and other emissions (such as odors) that could adversely affect a substantial number of people.

4.3.1 Environmental Setting

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

Salton Sea Air Basin

The U.S. EPA and CARB are the federal and State agencies charged with maintaining air quality in the nation and California, respectively. The U.S. EPA delegates much of its authority over air quality to CARB. CARB has geographically divided the State into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions.

The Planning Area is in the Salton Sea Air Basin (Basin), which includes the Coachella Valley (or western desert) portion of Riverside County as well as all of Imperial County. The Basin is bounded by the San Jacinto Mountains to the west, and extends eastward toward the Palo Verde Valley.

Air quality in the Coachella Valley portion of the Basin is managed by the SCAQMD. Pursuant to the California Clean Air Act, the SCAQMD is responsible for bringing air quality within the Basin into conformity with federal and State air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. The SCAQMD works with federal, State, and local agencies to reduce pollutant emissions through adoption and implementation of rules and regulations. Please refer to Section 4.3.2 for a description of the regulatory setting of the Planning Area as it relates to air quality.

Salton Sea Air Basin Climate and Meteorology

The climate of the Coachella Valley region is classified as hot desert, but weather conditions within the Basin are dependent on terrain and geographic location. The Basin is influenced by the

Pacific high-pressure system that sits off the coast during the summers; it inhibits cloud formation and encourages daytime solar heating.

The San Jacinto Mountains, which bound the Basin on the west, isolate the Coachella Valley from coastal influences from the west, and create a hot, low-lying desert environment. Temperatures exceed 100 degrees Fahrenheit (°F), on average, for four months each year, with average daily highs in excess of 105 °F during June and July. The average, nightly lows during the summertime are generally in the high-60s to mid-70s. Winters are mild with daily highs ranging from the high-60s to low-70s, and lows ranging from the low- to upper-40s. Annual precipitation is approximately five inches with the majority of the rainfall occurring during December, January, and February (WRCC 2019).

The Coachella Valley is situated in an area where meteorological conditions often lead to the development of strong winds. There are two primary factors that result in these strong winds. The first has to do with differences in pressure and air mass density between the cool, dense, marine air to the west, and the low surface air pressure over the desert. The air pressure and density differences between the two areas result in fast winds that pass through Banning Pass and down southward into the Coachella Valley. Some wind also travels northward from Banning Pass, along Highway 62, into Morongo Valley and the Mojave Desert Air Basin. The other genesis of strong winds in the Coachella Valley region is from thunderstorms, which can create downbursts causing localized wind gusts. These wind gusts can pick up large amounts of natural desert soils and transport them over large distances.

In addition to the winds that are characteristic of the Coachella Valley, the Basin also experiences temperature inversions. Temperature inversions are where a layer of cool air is overlain by a layer of warmer air. The combination of winds and inversions are the primary meteorological influences in the Basin that lead to degraded air quality during the summer and relatively good air quality in the winter.

Regulated Air Pollutants

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O_3), particulate matter (PM), which consists of "inhalable coarse" PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM_{10}) and "fine" PM (particles with an aerodynamic diameter smaller than 2.5 microns, or $PM_{2.5}$), Carbon Monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. The U.S. EPA refers to these six common pollutants as "criteria" pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally-based criteria and because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA 2019a and 2019b).

CARB has also established California Ambient Air Quality Standards (CAAQS) for the six common air pollutants regulated by the federal Clean Air Act (the CAAQS are more stringent than the NAAQS), plus the following additional air pollutants due to their known adverse effects on human health or the environment (CARB 2019a): hydrogen sulfide (H_2S), sulfates (SO_X), vinyl chloride, and visibility reducing particles.

A description of the air pollutants associated with the proposed project and its vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the vicinity of the project site, such as hydrogen sulfide, are not described below.

- **Ground-level Ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between nitrogen oxides (NO_X) and volatile organic compounds (VOCs), also called reactive organic gases (ROG), in the presence of sunlight (U.S. EPA 2017). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_X and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
  - **ROGs** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB 2004).
  - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as: methane, ethane, and methylene chloride (CARB 2004).
- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
  - **PM_{10}**, also known as inhalable coarse, respirable, or suspended PM, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7th the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
  - **$PM_{2.5}$**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30th the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).
- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicles are the single largest source of carbon monoxide in the Basin. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
- **Nitrogen Dioxide (NO_2)** is a by-product of combustion. NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone formation. NO_2 also contributes to the formation of particulate matter. NO_2 can cause breathing difficulties at high concentrations (U.S. EPA 2016c).
- **Sulfur Dioxide (SO_2)** is one of a group of highly reactive gases known as SO_X. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO_2. Short-term effects of SO_2 exposure can include adverse respiratory effects such as asthma symptoms. SO_2 and other SO_X can react to form PM (U.S. EPA 2016d).

- **Sulfates (SO_4^{2-})** are the fully oxidized ionic form of sulfur. SO_4^{2-} are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).
- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB 2016a).
- **Visibility Reducing Particles** impact the environment by decreasing visibility (haze). These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of fine PM. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment. Haze not only impacts visibility, but some haze-causing pollutants have been linked to serious health problems and environmental damage as well. Exposure to particles up to 2.5 ($PM_{2.5}$) and 10 microns (PM_{10}) in diameter in the ambient air can contribute to a broad range of adverse health effects, including premature death, hospitalizations and emergency department visits for worsened heart and lung diseases (CARB 2016c).

Common criteria air pollutants, such as ozone precursors, SO_2, and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin). Other pollutants, such as hazardous air pollutants (HAPs; described in more detail below under "Toxic Air Contaminants") and toxic air contaminants (TACs; described in more detail below) are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), respectively. The U.S. EPA has identified 187 HAPs, including substances such as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs.

TACs can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2019a, CARB 2019b). People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects such as (but not limited to) reduce immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems (U.S. EPA 2019a, CARB 2019b).

A description of the TACs associated with the proposed project and its vicinity is provided below.

- **Gasoline-Powered Mobile Sources.** According to the SCAQMD's *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (SCAQMD 2015), or MATES IV, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The MATES IV study identifies that diesel emissions account for between 68% to 80% of the total air toxics and cancer risk in the study area. This included not only the South Coast Air Basin, but also the Coachella Valley.
- **Diesel Particulate Matter (DPM)**. Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1 μm in diameter, and thus is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants, including VOCs and NO_x. The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surface and in the deepest regions of the lungs where the lung is most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure (CARB 2016b).

Ambient Air Quality Standards and Attainment Status

In general, the NAAQS and CAAQS define "clean" air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories.

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and State laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

The Planning Area is located in the Coachella Valley of the Salton Sea Air Basin, which is under the SCAQMD's jurisdiction. Air quality conditions in the Salton Sea Air Basin that differ from the adjacent South Coast Air Basin, which the SCAQMD also has jurisdiction over. The Coachella Valley remains a nonattainment area for the revoked 1997 and revised 2008 8-hour ozone NAAQS, as well as for the new 2015 ozone NAAQS. The Coachella Valley is now in attainment of the former (1979) 1-hour ozone NAAQS. The Coachella Valley is also a nonattainment area for the state 1-hour and 8-hour ozone standards.

Since the mid-1990s, the days that have exceeded the 24-hour PM_{10} NAAQS at the SCAQMD' Coachella Valley monitoring stations at Indio and Palm Springs have been associated with high-wind natural events. Much of this data has been flagged in the U.S. EPA Air Quality System (AQS) database to be excluded for comparison to the NAAQS, as allowed by the U.S. EPA Exceptional Events Rule and its predecessor, the Natural Events Policy. As a result, the District will continue to seek a re-designation by U.S. EPA for the Coachella Valley to attainment for the PM_{10} NAAQS, once sufficient data from PM_{10} monitors in Palm Springs, Indio, and the new Mecca station can be finalized and fully evaluated for exceptional events, contingent upon U.S. EPA concurrence. The Coachella Valley remains a nonattainment area for the PM_{10} CAAQS. Table 4.3-1 (Ambient Air Quality Standards and Basin Attainment Status) lists the NAAQS and CAAQS and summarizes the Coachella Valley region's attainment status.

Table 4.3-1
Ambient Air Quality Standards and Coachella Valley Attainment Status

Pollutant	Averaging Time(B)	California Standards(A)		National Standards(A)	
		Standard(C)	Attainment Status(D)	Standard(C)	Attainment Status(D)
Ozone	1-Hour (1979)	--	--	240 μg/m³	Attainment
	1-Hour (Current)	180 μg/m³	Nonattainment	--	--
	8-Hour (1997)	--	--	160 μg/m³	Nonattainment (Extreme)
	8-Hour (2008)	--	--	147 μg/m³	Nonattainment (Severe-15)
	8-Hour (Current)	137 μg/m³	Nonattainment	137 μg/m³	Nonattainment (Severe-15)
PM_{10}	24-Hour	50 μg/m³	Nonattainment	150 μg/m³	Nonattainment (Serious)
	Annual Average	20 μg/m³	Nonattainment	--	--
$PM_{2.5}$	24-Hour	--	--	35 μg/m³	Unclassifiable/ Attainment
	Annual Average (1997)	--	--	15 μg/m³	Unclassifiable/ Attainment
	Annual Average (Current)	12 μg/m³	Attainment	12 μg/m³	Unclassifiable/ Attainment
Carbon Monoxide	1-Hour	23,000 μg/m³	Attainment	40,000 μg/m³	Attainment
	8-Hour	10,000 μg/m³	Attainment	10,000 μg/m³	Attainment
Nitrogen Dioxide	1-Hour	339 μg/m³	Attainment	188 μg/m³	Attainment
	Annual Average	57 μg/m³	Attainment	100 μg/m³	Attainment
Sulfur Dioxide	1-Hour	655 μg/m³	Attainment	196 μg/m³	Designations Pending
	24-Hour	105 μg/m³	Attainment	367 μg/m³	Unclassifiable/ Attainment
	Annual Average	--	--	79 μg/m³	Unclassifiable/ Attainment

Pollutant	Averaging Time[B]	California Standards[A]		National Standards[A]	
		Standard[C]	Attainment Status[D]	Standard[C]	Attainment Status[D]
Lead	3-Months Rolling	--	--	0.15 μg/m^3	Attainment
Hydrogen Sulfide	1-Hour	42 μg/m^3	Attainment	--	--
Sulfates	24-Hour	25 μg/m^3	Attainment	--	--
Vinyl Chloride	24-Hour	26 μg/m^3	Attainment	--	--
Visibility Reducing Particles	--	0.23 per kilometer	Unclassified/Attainment	--	--

Source: SCAQMD 2018a, U.S. EPA 2019c modified by MIG.

(A) This table summarizes the CAAQS and NAAQS and the Coachella Valley's attainments status. This table does not present comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Valley is unclassified for visibility reducing particles.

(B) Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S. EPA for which the Valley does not meet attainment.

(C) All standards are shown in terms of micrograms per cubic meter (μg/m^3) rounded to the nearest whole number for comparison purposes (with the exception of lead, which has a standard less than 1 μg/m^3). The actual CAAQS and NAAQS standards specify units for each pollutant measurement.

(D) A= Attainment, N= Nonattainment, U=Unclassifiable.

Joshua Tree National Park Air Quality Conditions

The National Park Service Air Resources Division (NPS-ARD) estimates air quality conditions for all parks in the contiguous United States. The NPS-ARD also evaluates air quality trends and provides information on the composition of PM affecting visibility and of deposition for parks where representative monitoring data are available. The NPS-ARD uses seven specific indicators to evaluate air quality status at National Parks. These indicators are:

- Ozone: human health
- Ozone: vegetation health
- Visibility
- Sulfur
- Nitrogen
- Mercury
- Particulate Matter ($PM_{2.5}$ annual, $PM_{2.5}$ 24-hour, and PM_{10} 24-hour)

The conditions are compared to established benchmarks and assigned one of three status categories: 1) Warrants Significant Concern, 2) Warrants Moderate Concern, or 3) Resource is in Good Condition (NPS 2017). Table 4.3-2 summarizes air quality conditions and trends for ozone, visibility, nitrogen, and sulfur in Joshua Tree National Park from 2013 to 2015, the three most recent years with data available.

Table 4.3-2
Joshua Tree National Park Quality Conditions (2013 – 2015)

Air Quality Indicator	Status and Trend[(A)]		
	2013	2014	2015
Ozone: Human Health	SC (Improving)	SC (Improving)	SC (Improving)
Ozone: Vegetation Health	SC (Improving)	SC (Improving)	SC (Improving)
Visibility	MC (Improving)	MC (Improving)	MC (Improving)
Nitrogen	MC (Unchanged)	MC (Degrading)	MC (Degrading)
Sulfur	GC (Unchanged)	GC (Unchanged)	GC (Degrading)
Source: NPS 2018 (A) SC = Warrants Significant Concern; MD = Warrants Moderate Concern; GC = Resource is in Good Condition.			

As shown in Table 4.3-2, Joshua Tree National Park is adversely affected by ozone; however, conditions have continued to improve over time. Visibility has continuously warranted moderate concern but continues to improve. Although nitrogen and sulfur are not indicators warranting significant concern, their conditions have been degrading.

Local Air Quality Conditions
The SCAQMD monitors air quality within the Coachella Valley. Existing levels of ambient air quality and historical trends within the Planning Area are best documented by measurements taken by the SCAQMD. The station closest to Desert Hot Springs is identified as the Coachella Valley Monitoring Station (#4137) by SCAQMD (CARB refers to this station as Palm Springs). The station is located approximately ten miles to the south of Desert Hot Springs and monitors CO, O_3, NO_2, PM_{10} and $PM_{2.5}$. This monitoring station represents the best approximation of the air quality conditions within the City. Table 4.3-3 summarizes the published monitoring data from Coachella Valley (Palm Springs) monitoring station from 2016 to 2018, the three most recent years for which verified, published data is available from the SCAQMD (2019 data was not yet available as of the time of writing of this EIR). Table 4.3-3 shows that air quality standards at this location have exceeded $PM_{2.5}$, PM_{10}, and/or O_3 standards each of the last three years. The number of days exceeding both federal and state O_3 standards substantially increased in 2017 as compared to the previous year. Local air conditions for the past three years have not exceeded federal PM_{10} standards but did exceed the state standard for the past three years (six days in 2016 and seven days each in 2017 and 2018). Local air quality conditions for the past three years have not exceeded federal $PM_{2.5}$ standards.

Table 4.3-3
Local Air Quality Conditions (2016 – 2018)

Pollutant	Ambient Air Standard	Year[(A)]		
		2016	2017	2018
Ozone (O_3)				
Maximum 1-hour Concentration (ppm)		0.103	0.113	0.111
Maximum 8-hr Concentration (ppm)		0.092	0.097	0.099
Number of Days Exceeding State 1-hr Standard	>180 µg/m3	6	18	11
Number of Days Exceeding State 8-hr Standard	>137 µg/m3	48	57	56
Days Exceeding Federal 1-hr Standard	>0.124 ppm	0	0	0
Days Exceeding Federal 8-hr Standard	>0.070 ppm	46	57	56
Carbon Monoxide (CO)				
Maximum 1-hr Concentration (ppm)		3.1	1.0	1.1
Maximum 8-hr Concentration (ppm)		1.5	0.5	0.8
Days Exceeding State 1-hr Standard	>23,000 µg/m^3	--	--	--

Pollutant	Ambient Air Standard	Year(A)		
		2016	2017	2018
Days Exceeding Federal/State 8-hr Standard	>10,000 µg/m^3	--	--	--
Days Exceeding Federal 1-hr Standard	>40,000 µg/m^3	--	--	--
Nitrogen Dioxide (NO_2)				
Maximum 1-hr Concentration (ppb)		42.6	42.5	42.6
Annual Arithmetic Mean Concentration (ppb)		6.0	6.5	6.8
Days Exceeding State 1-hr Standard	>180 µg/m^3	--	--	--
Coarse Particulate Matter (PM_{10})				
Maximum 24-hr Concentration (µg/m^3)		113	93	117
Annual Arithmetic Mean (µg/m^3)		20.8	21.0	21.0
Samples Exceeding State 24-hr Standard	>50 µg/m^3	6	7	7
Samples Exceeding Federal 24-hr Standard	>150 µg/m^3	0	0	0
Fine Particulate Matter ($PM_{2.5}$)				
Maximum 24-hr Concentration (µg/m^3)		14.71	14.50	14.30
Annual Arithmetic Mean (µg/m^3)		5.53	6.05	6.02
Samples Exceeding Federal 24-hr Standard	>35 µg/m^3	0	0	0
Source: SCAQMD 2019b, 2019c, 2019d (A) "--" indicates data are not available.				

Existing Emissions Levels in the Planning Area

As described in the draft General Plan's Open Space and Natural Resources Element, Desert Hot Springs and the entire Coachella Valley is impacted by substantial air pollution. The largest pollutants of concern are PM_{10} and $PM_{2.5}$ in the form of dust, which can be picked up and carried through the air during high wind events, which are most pronounced during the spring months. Human activities, such as ground disturbance during site preparation and grading, can also lead to the entrainment of particulates in the air. Other sources of criteria air pollutants (e.g., O_3, CO, etc.) include emissions from cars and trucks using city streets and the surrounding freeways, and off-road construction equipment. The City is in close proximity to Interstate-10 (I-10) to the south. I-10 is considered a high-volume roadway (carrying more than 100,000 average daily vehicle trips) and is a major source of criteria air pollutants and TACs in that portion of the Planning Area.

The existing residential and non-residential land uses in the Planning Area generate emissions from the following sources:

- **Small "area" sources.** Existing land uses generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals to the atmosphere during product use.
- **Energy use and consumption**. Existing land uses generate emissions from the combustion of natural gas in building water and space heating equipment, as well as industrial processes.
- **Mobile sources.** Existing land uses generate emissions from vehicles travelling to and from the Planning Area.

Existing land uses in the Planning Area are summarized in Table 3-1 of the Project Description (see Section 3). Existing emissions were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2016.3.2. The existing emissions were estimated using default data assumptions contained within CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for each existing, modeled land use within the Planning Area was adjusted to reflect existing development conditions[1].
- **Energy Use and Consumption:** The residential default electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.13 and a factor of 1.27, respectively, to reflect lower energy efficiency requirements of the 2013 energy code (CAPCOA 2017). Similarly, the non-residential default electrical energy intensity, light energy intensity, and natural gas energy intensity values were adjusted upwards by a factor of 1.05, 1.02, and 1.01, respectively. This is appropriate as most buildings in the Planning Area were constructed prior to the adoption of both the 2013 (modeled energy efficiency) and 2016 (default assumption) Title 24 building energy efficiency standards.
- **Mobile Sources:** The default, weekday trip generation rates for existing land use types, with the exception of elementary schools, were replaced with trip generation rates contained in the Transportation Impact Analysis (TIA) prepared for the General Plan Update (Ganddini, 2019). According to CalEEMod, the existing land uses generate approximately 233,027 total daily vehicle trips per weekday. As estimated using CalEEMod, the existing land uses in the Planning Area generate approximately 463,047,434 annual vehicle miles travelled, or VMT (see Appendix F). Of this, approximately 352,534,495 (76% of total VMT) are attributable to residential land uses; non-residential land uses account for approximately 110,512,939 (24% of total VMT), with retail/shopping center land uses accounting for nearly 62,817,348 VMT (57%) of the total non-residential VMT.

The emissions generated by current land uses in the Planning Area are shown in Table 4.3-4 (Existing Land Use Emissions). The emissions are shown for two scenarios:

- **Year 2019 (current conditions)**, which are based on Year 2019 vehicle fleet characteristics (e.g., vehicle type, age, emission rates), and represent the emissions levels that exist at the time the Notice of Preparation was released for this EIR.
- **Year 2040 (future conditions)**, which are based on Year 2040 vehicle fleet characteristics and represent the projected emission that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the change in land uses that would occur Year 2040 growth projections, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the Project is adopted.

[1] Only land uses that were identified for change were modeled.

Table 4.3-4
Existing Land Use Emissions Estimates

Emissions Source	Maximum Daily Pollutant Emissions (Pounds per Day)(A)							
	ROG	NOx	CO	SO_2	PM_{10}		$PM_{2.5}$	
					Dust	Exhaust	Dust	Exhaust
Year 2019 (Current Conditions)								
Area	2,232	309	4,466	8.5	-	446	-	446
Energy	21	180	86	1.1	-	14	-	14
Mobile	514	3,358	4,4774	17	1,085	17	290	16
Year 2019 Total	*2,767*	*3,846*	*9,326*	*26*	*1,085*	*478*	*290*	*477*
Year 2040 (Future Conditions)								
Area Sources	2,230	309	4,451	8.5	-	446	-	446
Energy	18	153	75	1.0	-	12	-	12
Mobile Sources	188	1,764	1,817	12	1,083	3.9	289	3.6
Year 2040 Total(B)	***2,436***	***2,226***	***6,343***	***21***	***1,083***	***463***	***289***	***462***

Source: MIG 2019, see Appendix D.
(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, NO_X, CO, SO_X emissions occur during the summer. Maximum daily PM_{10} and $PM_{2.5}$ exhaust emissions occur during the winter.
(B) Totals may not equal due to rounding.

As shown in Table 4.3-4, there is a decrease in mobile source emissions between Year 2019 and Year 2040 conditions. This decrease in emissions is due to improvements in exhaust emission control systems in newer vehicles and the turnover and replacement of older vehicles with new vehicles meeting more stringent fuel efficiency and exhaust standards.

Sensitive Receptors

Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (SCAQMD 2019a; CARB 2005).

The potentially serious detrimental effects caused by even the most common pollutants are of widespread concern. O_3, PM, CO and other pollutants pose a very real threat to health and property in the desert. The region's high median age implies that major portions of residents are particularly susceptible to respiratory distress from O_3 and PM_{10}. In general, the sensitive air quality receptors within the City of Desert Hot Springs include, but are not limited to:

- Existing low-density, medium-density, and high-density residential receptors within the City;
- Existing elementary and intermediate schools, and education or institutional facilities;
- Existing public facilities such as the Boys and Girls Club;
- Existing parks, including, but not limited to, Guy I. Tedesco Park, Wardman Park, and Mission Springs Park.

Existing Air Pollution-Related Health Risks

Sensitive air quality receptors are usually most affected by local sources of air pollution. The Planning Area borders and is near the I-10. Additionally, the Metrolink San Bernardino Line runs within the I-10 corridor, but is not located within the City's limits. The Planning Area also includes several small stationary sources of emissions. These sources are described below.

Under the State's Air Toxics Hot Spots Information and Assessment Act (AB 2588; see Section 4.3.2) the SCAQMD is required to prepare an annual report of activities related to facilities that emit TACs. According to the SCAQMD's September 2018 Annual Report on AB 2588 Air Toxics Hot Spots Program, there were no facilities within the Planning Area that were subject to AB 2588 activities (SCAQMD 2018b). Publicly available data from CARB indicates there are no facilities within the Planning Area that report emissions pursuant to AB 2588 (CARB 2016d).

According to the SCAQMD's MATES IV Carcinogenic Risk Map, the City of Desert Hot Springs generally has an estimated excess cancer risk in the range of 300-800 per million population, with higher risks associated with proximity to the I-10 (SCAQMD 2018c).[2] This cancer risk estimate is orders of magnitude higher than the SCAQMD's significance threshold of 10 cases in one million for cancer risk. These estimates, however, are based upon regional modeling efforts that largely do not account for site specific emission rates and dispersion characteristics that typically result in refined and substantially lower health risk estimates.

CalEnviroScreen is another mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are then mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. According to the OEHHA CalEnviroScreen 3.0 Map, the Planning Area is in census tracts 6065044522, 6065044518, 6065044517, 6065044509, 6065044507, 6065044510, 6065044515, and 6065044516 and has pollution indicator percentiles ranging from 1% to 40% based on the CalEnviroScreen indicators (e.g., exposure, environmental effects, population characteristics, socioeconomic factors) (OEHHA 2018). These numbers indicate relatively low health risks in the Planning Area, as compared to other areas of the state.

4.3.2 Regulatory Framework

Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of

[2] According to the SCAQMD, cancer risk refers to the probability of contracting cancer associated with exposure to a substance. It is expressed as the chance per million population of a cancer case occurring. A risk of 1,005 per million means that in a population of one million individuals (exposed over a 70 year lifetime), 1,005 additional cancer cases would be expected (SCAQMD, 2018c).

safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

The U.S. EPA requires each State prepare and submit a State Implementation Plan (SIP) that consists of background information, rules, technical documentation, and agreements that an individual State will use to attain compliance with the NAAQS within federally-imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable.

Class I Lands

The Clean Air Amendments of 1977 established Class I, II, and III areas where emissions of PM and SO_2 are to be restricted. The restrictions are most severe in federal Class I areas and become more lenient in Class II and Class III lands. Mandatory Class I federal lands include:

- International parks.
- National wilderness areas that exceed 5,000 acres in size.
- National memorial parks that exceed 5,000 acres in size.
- National parks that exceed 6,000 acres in size.

Federal Class I areas in proximity to Desert Hot Springs include: Joshua Tree National Park, to the north and east of the Planning Area, and the San Gorgonio Wilderness, west of the Planning Area.[3]

State

California Clean Air Act

In addition to being subject to Federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

In-Use Off-Road Diesel Equipment Program

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NO_x and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25

[3] The San Gorgonio Wilderness is within the Sand to Snow National Monument, which was established by President Obama in February 2016. At this time of this writing, the Sand to Snow National Monument is not a designated Class I area in the Code of Federal Regulations (CFR) Title 40 §81.405 (GBO, 2019). By the definition provided in CFR §51.166(e)(3), the Sand to Snow National Monument is a designated Class II area.

horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation
CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO_X, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines, and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

CARB Stationary Diesel Engines – Emission Regulations
In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments *to Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by SCAQMD.

CARB Air Quality and Land Use Handbook
In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Planning Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023). The SCAQMD (Regulation 14, Rule 21) has established emission controls for the use of perchloroethylene, the most common dry-cleaning solvent.

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

Air Toxics "Hot Spots" Program
State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics "Hot Spots" Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics "Hot Spots" Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California's Children's Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California's Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. Environmental Protection Agency (U.S. EPA);
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

On May 6, 2005, the SCAQMD adopted a *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* containing numerous recommendations focused on land use planning, such as locating sensitive receptors away from substantial sources of TACs and CO hot spots (e.g., high-traffic freeways and roads, distribution centers, refineries, etc.). When locating receptors near large generators of TAC emissions, the SCAQMD recommends conducting CO hot spot analyses and analyzing health risk for these new developments.

Regional

Southern California Association of Governments
The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040

Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP.

SCAQMD Air Quality Management Plan (AQMP)

Under State law, the SCAQMD is required to prepare an overall plan for air quality improvement, known as an AQMP. The purpose of an AQMP is to bring an air basin into compliance with federal and State air quality standards. The SCAQMD 2016 AQMP was adopted on March 3, 2017. The 2016 AQMP provides new and revised demonstration's for how the SCAQMD, in coordination with federal, State, regional and local governments will bring the Basin back into attainment for the following NAAQS: 2008 8-hour ozone; 2012 annual PM2.5; 2006 24-hour PM2.5; 1997 8-hour ozone; and 1997 1-hour ozone.

To achieve the reductions necessary to bring ambient air quality back into attainment the SCAQMD has identified seven primary objectives for the AQMP, which include:

1. Eliminating reliance on unknown future technology measures to demonstrate future attainment of air quality standards;
2. Calculating and accounting for co-benefits associated with measures identified in other, approved planning efforts (e.g., SCAG RTP/SCS);
3. Developing a strategy with fair-share emission reductions at the federal, State, and local levels;
4. Investing in strategies and technologies that meet multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation—especially in disadvantaged communities;
5. Seeking, identifying, and securing significant sources of funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, particularly in the mobile source sector;
6. Enhancing the socioeconomic analysis and selecting the most efficient and cost-effective path to achieve multi-pollutant and -deadline targets; and
7. Prioritize non-regulatory, innovative approaches that can contribute to the economic vitality of the regional while maximizing emission reductions.

The emission forecasts and demonstrations presented in the 2016 AMQP rely heavily on information contained in other planning and strategy documents. For example, the 2016 AQMP's long-term emissions inventory is based on the growth and land uses projections contained in the SCAG's 2016 RTP/SCS. Additionally, the conclusions relating to ozone compliance are based on implementation of measures presented in CARB's Mobile Source Strategy and SIP strategy. The Mobile Source Strategy outlines a suite of measures targeted at on-road light- and heavy-duty vehicles, off-road equipment, and federal and international sources. A subset of the statewide strategy is a mobile source strategy for the South Coast SIP. Because the SCAQMD has limited authority in regulating mobile source emissions, coordination and cooperation between SCAQMD, CARB, and the U.S. EPA is imperative to meeting the NOx reductions required to meet ozone standards. Although not incorporated specifically from another planning document strategy, the 2016 AQMP also provides numerous control measures for stationary sources.

SCAQMD Rules and Regulations
The SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of business, processes, operations, and products to implement the AQMP and the various federal and State air quality requirements. In general, rules that would be applicable to Project development include:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.
- **Rule 445 (Wood Burning Devices)** prohibits installation of woodburning devices such as fireplaces and wood-burning stoves in new development unless the development is located at an elevation above 3,000 feet or if existing infrastructure for natural gas service is not available within 150-feet of the development.
- **Rule 481 (Spray Coating Operations)** imposes equipment and operational restrictions during construction for all spray painting and spray coating operations.
- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** specifies work practice requirements to limit asbestos emissions from building demolitions and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, asbestos containing materials handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos containing waste materials.
- **Rule 2202 (On-Road Motor Vehicle Mitigation Options)** provides employers with options to reduce mobile source emissions generated from employee commutes. The

rule applies to any employer who employs 250 or more employees on a full or part time basis at a worksite for a consecutive six-month period.

Desert Hot Springs General Plan

The Environmental Resources Element of the General Plan Update addresses air quality. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to air quality are addressed in the following elements: Land Use and Community Development, Mobility and Infrastructure, Open Space and Natural Resources, and Health and Wellness. Several policies are identified in these Elements to reduce pollutant emissions in the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-1.4: Sustainability
- Policy LU-1.5: Reduce Vehicular Trips and Miles Traveled
- Policy MI-5.1: Reduce Vehicle Miles Traveled
- Policy MI-5.2: Sustainable Transportation and Land Use Strategies
- Policy MI-5.3: Clean Vehicles
- Policy MI-5.4: Traffic Mitigation
- Policy MI-9.1: Intelligent Transportation Systems
- Policy MI-10.2: Expand Funding
- Policy MI-10.4: Mitigation Fees
- Policy MI-10.11: Reduce Energy
- Policy MI-10.12: Energy Efficiency
- Policy MI-10.14: Infrastructure Planning
- Policy OS-1.1: Natural Habitat and Washes
- Policy OS-2.1: Air Pollution Reduction
- Policy OS-2.3: Minimize Air Quality Impacts
- Policy OS-2.4: Air Quality Goals
- Policy OS-2.5: Education Programs
- Policy OS-2.6: Alternative Fuels
- Policy OS-2.7: Coordination
- Policy OS-4.4: Solar Energy Systems
- Policy OS-4.5: Solar Farms
- Policy OS-4.6: City Vehicle Replacement
- Policy OS-6.1: Sustainable Construction
- Policy OS-6.2: Green Building

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

Desert Hot Springs Municipal Code

Title 5 of the City's Municipal Code, Business Licenses and Regulations, Chapter 5.50.150, Odor Control, requires marijuana facilities to provide a sufficient odor absorbing ventilation and exhaust system so that odor generated inside the marijuana facility that is distinctive to its operation is not detected outside the marijuana facility, anywhere on adjacent property or public rights-of-way, on or about any exterior or interior common area walkways, hallways, breezeways, foyers, lobby areas, or any other areas available for common use by tenants or the visiting public, or within any other unit located within the same building as the marijuana facility. As such, marijuana facilities must install and maintain the following equipment or any other equipment which the City Manager or designee determines has the same or better effectiveness:

- An exhaust air filtration system with odor control that prevents internal odors from being emitted externally; or
- An air system that creates negative air pressure between the marijuana facility's interior and exterior so that the odors generated inside the marijuana facility are not detectable outside the marijuana facility.

Title 15 of the City's Municipal Code, Buildings and Construction, Chapter 15.84, Control of Fugitive Dust (PM_{10}) Emissions, requires that:

- No operator shall conduct any potential dust-generating activity on a site unless the operator utilizes one or more Coachella Valley best available control measures, as identified in the Coachella Valley Fugitive Dust Control Handbook for each fugitive dust source such that the applicable performance standards are met.
- Any operator involved in any potential dust-generating activity on a site with a disturbed surface area greater than one acre shall, at a minimum, operate a water application system as identified in the Coachella Valley Fugitive Dust Control Handbook, if watering is the selected control measure.

4.3.3 Thresholds of Significance

Based on the CEQA Guidelines, Appendix G: Items III (a) through (d), implementation of the Project would have a significant impact related to air quality if it would:

A. Conflict with or obstruct implementation of the applicable air quality plan?
B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
C. Expose sensitive receptors to substantial pollutant concentrations?
D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
E. Would the project cause substantial adverse cumulative impacts with respect to air quality?

Regional Significance Thresholds
The significance thresholds in the SCAQMD's *CEQA Air Quality Handbook* were used for evaluating the impacts associated with the implementation of the proposed Project. The SCAQMD has established mass daily thresholds for regional pollutant emissions, as shown in Table 4.3-5.

Table 4.3-5
SCAQMD Regional Emission Significance Thresholds

Air Contaminant	Construction (Maximum Pounds Per Day)	Operation (Maximum Pounds Per Day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2019e		

Localized Significance Thresholds
In addition to establishing thresholds of significance for emissions of criteria air pollutants on a regional level, the SCAQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts. The LST methodology takes into account a number of factors, including (1) existing ambient air quality in each Source Receptor Area (SRA); (2) how many acres the project would disturb in a day; and (3) how far project construction and operational activities would take place from the nearest sensitive receptor. Unlike the regional emission significance thresholds presented in Table 4.3-5, LSTs have only been developed for NOx, CO, PM_{10} and $PM_{2.5}$. The construction and operational LSTs for one-acre, two-acre, and five-acre sites in SRA 30 (Coachella Valley), the SRA in which the City of Desert Hot Springs is located, are shown in Table 4.3-6 below.

Table 4.3-6
SCAQMD Localized Significance Thresholds for Source Receptor Area 30

Pollutant Monitored	Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary				
	82 Feet	164 Feet	328 Feet	656 Feet	1,640 Feet
ONE-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	132	166	238	376	733
Carbon Monoxide (CO)	878	1,387	2,565	6,021	24,417
Particulate Matter (PM_{10})	4	13	35	80	214
Particulate Matter ($PM_{2.5}$)	3	5	10	24	105
Operational Thresholds					
Nitrogen Oxides (NO_x)	132	166	238	376	733
Carbon Monoxide (CO)	878	1,387	2,565	6,021	24,417
Particulate Matter (PM_{10})	1	3	9	20	52
Particulate Matter ($PM_{2.5}$)	1	2	3	6	26
TWO-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	191	225	296	425	769
Carbon Monoxide (CO)	1,299	1,931	3,409	7,174	26,212
Particulate Matter (PM_{10})	7	22	44	89	223
Particulate Matter ($PM_{2.5}$)	5	7	12	28	112

Pollutant Monitored	Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary				
	82 Feet	164 Feet	328 Feet	656 Feet	1,640 Feet
Operational Thresholds					
Nitrogen Oxides (NO_x)	191	225	296	425	769
Carbon Monoxide (CO)	1,299	1,931	3,409	7,174	26,212
Particulate Matter (PM_{10})	2	6	16	36	97
Particulate Matter ($PM_{2.5}$)	2	2	3	7	27
FIVE-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	304	340	425	547	875
Carbon Monoxide (CO)	2,292	3,237	5,331	10,178	31,115
Particulate Matter (PM_{10})	14	44	67	112	248
Particulate Matter ($PM_{2.5}$)	8	11	19	37	128
Operational Thresholds					
Nitrogen Oxides (NO_x)	304	340	425	547	875
Carbon Monoxide (CO)	2,292	3,237	5,331	10,178	31,115
Particulate Matter (PM_{10})	4	11	16	27	60
Particulate Matter ($PM_{2.5}$)	2	3	5	9	31

Source: SCAQMD 2008, modified by MIG
Note: The localized thresholds for NOx in this table account for the conversion of NO to NO_2. The emission thresholds are based on NO_2 levels, as this is the compound associated with adverse health effects.

Carbon Monoxide "Hot Spot" Thresholds

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS 1997). The Protocol determines a project may worsen air quality if the project increases the percentage of vehicles in cold start modes by two percent or more; significantly increases traffic volumes by five percent or more; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle and the length of time that vehicles can idle before emissions would trigger a CO impact has increased, so the use of LOS as an indicator is no longer applicable for determining CO impacts.

The SCAQMD does not have a methodology for screening CO hotspots. However, the Bay Area Air Quality Management District (BAAQMD) developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017 pg. 3-4). To mirror this approach, SCAQMD performed CO modeling as part of its 2003 AQMP at four busy intersections during morning and evening peak hour periods. The busiest intersection studied in the analysis—Wilshire Boulevard and Veteran Avenue—had 8,062 vehicles per hour during morning peak hours, 7,719 vehicles per hour during evening peak hours, and approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour CO concentration for this intersection was 4.6 ppm, which is less than a fourth of the 1-hour CAAQS CO standard (20 ppm) (SCAQMD 2003a). Thus, the BAAQMD screening threshold is generally consistent with the results of the CO modeling conducted for the SCAQMD's 2003 AQMP. Therefore, for purposes of this EIR, the Project would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

Toxic Air Contaminant Thresholds
The SCAQMD recommends preparation of a Health Risk Assessment (HRA) for large commercial or industrial projects to determine the specific health risks posed by long-term emissions of TACs from a project. Following OEHHA and SCAQMD guidance, health risks from TAC emissions are estimated based on "Individual Cancer Risk," which is the likelihood that a person exposed to TACs over 70-year lifetime will get cancer or suffer some other "non-cancer" effect (measured by what is called as a "hazard index"). Numerous weighting factors (e.g., age sensitivity factors, breathing rates, etc.) are applied during health risk calculations to account for those members of the public who may be more sensitive to pollution than others (e.g., sensitive receptors). A project is considered to have a significant impact if it results in any of the following:

- A maximum incremental cancer risk greater than or equal to 10 in one million;
- A population-wide cancer burden greater than 0.5 (in areas were cancer risk is greater than or equal to 1 in one million); or
- A chronic or acute hazard index greater than or equal to 1.0.

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

In another recent Supreme Court Ruling – Sierra Club v. County of Fresno 6 Cal. 5th 502 (2018) – the Supreme Court held that CEQA requires a Lead Agency to make a reasonable effort to provide an appropriate, project-specific context and connection between mass pollutant emissions estimates (i.e., pounds per day or tons per year) and the potential health impacts associated with such emissions estimates, or to explain what is and is not yet known about the Project's "bare" emissions numbers and their potential adverse health impacts.

Consistent with these court rulings, the impact discussion presented below focuses on the proposed Project's effect on air quality and existing health risks, rather than the effect of existing air quality and its potential risks on the proposed Project's residents. The analysis evaluates whether the proposed Project would create or exacerbate adverse public health risk conditions at sensitive receptor locations, as identified in the SCAQMD's CEQA significance criteria.

4.3.4 Environmental Impacts

A. Conflict with or obstruct implementation of the applicable air quality plan?

Analysis of Impacts

As described in Section 4.3.1, the proposed Project is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the Project:

1) Is consistent with the growth assumptions in the AQMP; and
2) Does not increase the frequency or severity of an air quality standards violation, or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2016 AQMP. The 2016 AQMP was designed to achieve attainment for all criteria air pollutants within the Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Therefore, if the growth under the Project is consistent with the regional population, housing, and employment forecasts identified by SCAG in the RTP/SCS, plan implementation would be consistent with the AQMP, even if emissions could potentially exceed the SCAQMD's recommended daily emissions thresholds.

The proposed Project includes land use designations that support development of up to 34,564 dwelling units accommodating a population of up to 136,402 residents by 2040. The Planning Area's population will increase by 87,852, from 48,550 in 2018 to 136,402 in 2040. The number of dwelling units will also increase, from 19,100 dwelling units in 2018 to 53,664 dwelling units in 2040 (an increase of 34,564 dwelling units). Employment will increase, from 5,182 jobs in 2018 to 20,531 jobs by 2040, an increase of 15,349 jobs. The 2016 RTP/SCS population and employment projections for the City of Desert Hot Springs, as well as the increase in population and employment that would occur with the implementation of the proposed Project, are shown in Table 4.3-7.

Table 4.3-7
RTP/SCS and General Plan Update Growth Assumptions

Scenario	Net New Population Growth	Net New Employment
Proposed General Plan Update		
City	59,086	10,449
Sphere of Influence	28,766	4,900
Planning Area Total	87,852	15,349
RTC/SCS Growth 2012 - 2040	31,100	9,200
Within Growth Assumptions?	No	No
Source: SCAG, 2016; City of Desert Hot Springs 2019.		

As shown in Table 4.3-7, the anticipated potential growth under implementation of the proposed General Plan Update would exceed SCAG's growth projection and, therefore, be inconsistent with the 2016 AQMP.

Consistency Criterion 2 refers to the CAAQS and NAAQS. As described in Section 4.3.1, the Coachella Valley Air Basin is designated nonattainment for national and state O_3 and PM_{10} standards. The analyses of potential emissions under Impact AQ-2 indicates the General Plan Update could result in emissions of ROG and NO_X, ozone precursor pollutants, during potential construction activities that exceed SCAQMD thresholds of significance; however, Mitigation Measures AQ-2A and AQ-2B would require the use SCAQMD “super compliant” architectural coatings equipment that meets the U.S. EPA’s Tier IV exhaust emissions standards.

The analyses of potential emissions under Impact AQ-2 also indicates the General Plan Update could result in long-term (i.e., operational) emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ that exceed SCAQMD regional thresholds of significance. Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D would result in reductions in emissions of GHG and criteria air pollutants from area, energy, and mobile sources operating in the City.

Level of Significance Before Mitigation

The growth that could occur under the Project’s 2040 growth conditions would be inconsistent with the 2016 RTP/SCS growth forecasts and, as discussed under Impact AQ-2 below, could result in construction (ROG and NO_X) and operational (ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$) emissions that exceed the SCAQMD’s recommended regional CEQA thresholds. Although the mass amount of emissions attributable to a single project (i.e., pounds per day) does not necessarily contribute to air pollution levels measured throughout the Coachella Valley and in or near the City, the SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project’s individual emissions would be cumulatively considerable (SCAQMD 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. Since potential growth under the General Plan Update would be inconsistent with current AQMP projections and could lead to construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed Project could increase the frequency and/or severity of air quality violations in the Coachella Valley or otherwise impede attainment of air quality standards, particularly national and state O_3 and PM_{10} standards. This is considered a **potentially significant impact**.

Mitigation Measures

See Mitigation Measures AQ-2A and AQ-2B (under Impact AQ-2) and Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D (under Impact GHG-1).

Level of Significance After Mitigation

As discussed under Impact AQ-2 below, Project construction emissions would not exceed the SCAQMD’s regional or local significance thresholds with the inclusion of mitigation measures and, therefore, would not have the potential to cause or contribute to new or more frequent exceedances of national and state ozone standards; however, the growth that could occur under the Project by 2040 would be inconsistent with the 2016 RTP/SCS growth forecast and could generate operational emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ that increase the frequency and/or severity of air quality violations in the Coachella Valley or otherwise impede attainment of standards, even with the inclusion of mitigation measures designed to reduce project emissions. Therefore, this impact would be ***significant and unavoidable***.

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Analysis of Impacts

Project implementation would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the Planning Area and in the greater Coachella Valley (see Section 4.3.1).

Although future projects occurring within the Planning Area would be guided by the goals and policies outlined in the City's General Plan, the City's adoption of the proposed Project would not authorize nor permit any individual projects to move forward at this time. Nonetheless, the City has prepared an air quality analysis that focuses on the nature and magnitude of the change in the air quality environment due to implementation of the Project. The SCAQMD has not adopted plan-level significance thresholds. The SCAQMD and/or CARB monitor levels of criteria air pollutant concentrations in ambient air to evaluate attainment of CAAQS and NAAQS; the significance of the net change in criteria air pollutant emissions that the implementation of the Project could emit during construction and operation is evaluated below by comparing the potential levels of emissions from these activities against the SCAQMD's regional and localized significance thresholds (see Table 4.3-5 and Table 4.3-6). As explained under Impact AQ-1, the SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

Neither the SCAQMD nor CARB conduct regular and routine monitoring of TACs because most TACs do not have an established ambient air quality standard against which ambient air concentrations can be compared[4]; however, TAC emissions could result in local effects if substantial concentrations were to occur at sensitive receptor locations as a result of the proposed project. The proposed project's TAC emissions are discussed under Impact AQ-3 below.

Construction Emissions

Regional Construction Emissions. The proposed Project would not directly result in construction of any development or infrastructure; however, future development supported by the General Plan would result in short-term construction-related criteria pollutant emissions that have the potential to have an adverse effect on air quality. Short-term criteria pollutant emissions would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities associated with specific new development projects. Emissions would occur from use of equipment, worker, vendor and hauling trips, and disturbance of onsite soils (fugitive dust). ROG and NO_X emissions are primarily associated with gas and diesel equipment exhaust and the application of architectural coatings. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) are primarily associated with site preparation and vary as a function of such parameters as soil silt content, soil

[4] Ambient air quality standards have been adopted for lead and vinyl chloride, both of which are TACs; however, these pollutants are monitored at far fewer locations than criteria air pollutants like ozone precursor and PM. In addition, the SCAQMD does periodically conduct monitoring and modeling of TAC emissions sources; however, these efforts are usually source specific.

moisture, wind speed, acreage of disturbance area, and Vehicle Miles Traveled (VMT) by construction vehicles on- and off-site. Typical construction equipment associated with development and redevelopment projects includes dozers, graders, excavators, loaders, and trucks. The types and quantity of equipment, as well as duration of construction activities, would be dependent on project specific conditions. Larger projects would require more equipment over a longer timeframe than required for smaller projects; however, specific information is not available for future projects at this time because Project development is expected to occur over approximately 20 years and the location, type, and timing of construction would be driven by market demand.

To determine if anticipated typical construction activities could result in a significant air quality impact, construction emissions were modeled using CalEEMod V. 2016.3.2. CalEEMod utilizes construction survey data to estimate construction phase lengths and equipment needs based on the area of a project site. Due to the uncertainty of timing and methods of construction activities that would occur under the project, the construction emissions analysis assumed that a maximum of 10% of the Project's planned growth could be under construction in any given year, as shown in Table 4.3-8[5].

Table 4.3-8
Project Growth (2040), Average Year, and Worst-Case Year Construction Activity

CalEEMod Land Use Input		Specific Plan Development(A)		
Type	**Subtype**	**Net Growth (2040)(B)**	**Average Year Development(C)**	**Worst-Case Year Development(D)**
Industrial	General Light Industry	11,239,395 SF	561,970 SF	1,123,940 SF
Educational	Elementary School	6,574 Students	329 Students	657 Students
Residential	Multi-Family Housing (Apartments)	17,158 DU	817 DU	1,634 DU
Residential	Single Family(E)	17,406 DU	829 DU	1,657 DU
Recreational	Hotel/Motel	297 Rooms	15 Rooms	30 Rooms
Retail	Reginal Shopping Center	5,830,443 SF	291,522 SF	583,044 SF

(A) SF = Square Footage. DU = Dwelling Units.
(B) The growth values in this table do not represent the total development square footage that would exist in the General Plan Update's horizon year (2040). Rather, these values are estimates of the total d new square footage and dwelling units that would be constructed by 2040. The values do not include remodeling of existing buildings, which would not result in significant construction emissions.
(C) Values reflect 2040 growth development divided by 20 years.
(D) Values reflect twice the average year development intensity, or approximately 10% of total Project growth.
(E) For the purposes of this table, existing mobile homes were considered a single family residential land use type. Similarly, general office space was considered regional shopping center land use type.

Potential construction emissions were modeled using CalEEMod, Version 2016.3.2 (see Appendix D). The modeling assumes default construction phase and duration information based on the land use inputs shown in Table 4.3-8. Construction was assumed to start in 2020; the type and amount of equipment used during construction was generated using CalEEMod default

[5] This is considered a conservative assumption because it represents a doubling of the overall average activity that could occur over the approximately 20-year growth period planned for by the General Plan Update.

assumptions. Due to the changeover in construction fleets as old equipment is replaced with newer, cleaner equipment, it is anticipated that maximum daily emissions would decrease as development occurs beyond 2020. The modeled potential construction emissions are presented in Table 4.3-9. It is mandatory for all construction projects in the South Coast Air Basin to comply with SCAQMD Rule 403 Fugitive Dust. Therefore, the emissions presented in Table 4.3-9 include the application of dust control measures commensurate with SCAQMD Rule 403.

Table 4.3-9
Unmitigated Construction Emissions Estimates

Emissions Source	Maximum Daily Pollutant Emissions (Pounds per Day)									
	ROG	NO_X	CO	SO_2	PM_{10}			$PM_{2.5}$		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Summer	172	230	215	0.6	39(A)	8.5	48	13(A)	7.9	21
Winter	172	229	200	0.6	39(A)	8.5	48	13(A)	7.9	21
SCAQMD CEQA Threshold	75	100	550	150	150			55		
Threshold Exceeded?	**Yes**	**Yes**	No	No	No			No		

Source: MIG, 2019 (see Appendix D) and SCAQMD 2019e.
(A) Fugitive dust emissions estimates include application of fugitive dust control measures as required by SCAQMD Rule 403 and City Municipal Code Chapter 15.84, including watering exposed areas (3x) daily.

As shown in Table 4.3-9, the worst-case maximum daily construction emissions associated with Project implementation could have the potential for ROG and NO_X emissions (ozone precursors) to exceed SCAQMD regional thresholds. The modeled ROG emissions exceed regional thresholds due to the architectural coating phase associated with the modeled construction activities, which would account for most of the estimated ROG emissions. The modeled NOx emissions exceed regional thresholds due to the magnitude of potential equipment operations.

To reduce potential ROG emissions generated during coating application activities to levels below SCAQMD thresholds, the City would require development projects to implement Mitigation Measure AQ-2A, which requires the use of SCAQMD Rule 1113 “super compliant” coatings with a lower VOC content than the CalEEMod default assumption, as well as the application of coatings with efficient spray equipment. The standard VOC content assumption for residential and non-residential coatings is 50 and 100 grams per liter, respectively. Thus, the use of coatings with a VOC content of less than 10 grams per liter of coating would substantially reduce ROG emissions during coating application activities, as shown in Table 4.3-10.

To reduce potential NO_X emissions generated during construction activities to levels below SCAQMD thresholds, the City would require development projects to implement Mitigation Measure AQ-2B. This mitigation measure requires the use of electric or other alternatively-powered non-diesel equipment where feasible, and the use of diesel engines that meet Tier IV final emission standards.

The Project’s mitigated potential construction emissions are presented in Table 4.3-10.

Table 4.3-10
Mitigated Construction Emissions Estimates

Emissions Source	Maximum Daily Pollutant Emissions (Pounds per Day)(A)									
	ROG	NO_X	CO	SO_2	PM_{10}			$PM_{2.5}$		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Summer	46(B)	88	220	0.6	39	1.3	40	13	1.3	14
Winter	46(B)	88	205	0.6	39	1.3	40	13	1.3	14
SCAQMD CEQA Threshold	75	100	550	150	150			55		
Threshold Exceeded?	No	No	No	No	No			No		

Source: MIG, 2019 (see Appendix D) and SCAQMD 2019e.
(A) Mitigated ROG emissions are based on the use of SCAQMD super compliant coatings with a VOC content of no more than 10 grams per liter.
(B) Fugitive dust emissions estimates include application of fugitive dust control measures as required by SCAQMD Rule 403 and City Municipal Code Chapter 15.84, including watering exposed areas (3x) daily.

Level of Significance Before Mitigation (Construction Emissions)

As shown in Table 4.3-9, the worst-case maximum daily construction emissions associated with Project implementation could have the potential for ROG and NO_X emissions (ozone precursors) to exceed SCAQMD regional thresholds. This is considered a **potentially significant impact.**

Mitigation Measures

Mitigation Measure AQ-2A: "Super Compliant" Architectural Coatings
The City shall require development projects to:

1) Submit evidence, such as emissions estimates, coating use estimates and manufacturers specifications for VOC content, or other evidence that indicates VOC emissions during architectural coating activities would not exceed SCAQMD CEQA significance thresholds.
2) Prepare a Coating Restriction Plan (CRP), consistent with SCAQMD guidelines. The project applicant/developer shall include in any construction contracts and/or subcontracts a requirement that Project contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in Project construction meet the SCAQMD "super compliant" coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low-pressure spray guns during coating applications to reduce coating waste.

Mitigation Measure AQ-2B: Tier IV Construction Equipment
To reduce construction equipment emissions of NO_X, diesel particulate matter, and other pollutants, the City shall require development projects to:

1) Use electric-powered and liquefied or compressed natural gas equipment instead of diesel-powered equipment to the maximum extent feasible.
2) All construction equipment with a rated power-output of 50 horsepower or greater shall meet U.S. EPA and CARB Tier IV Final Emission Standards for NO_X. This may be achieved via the use of equipment with engines that have been certified to meet Tier IV emission standards, or through the use of equipment that has been retrofitted with a

CARB-verified emission control strategy (e.g., selective catalytic reduction) capable of reducing exhaust NO_X emission to levels that meet Tier IV standards.

3) The City may grant an exemption from these requirements in the event an applicant can factually document that the specific equipment needed to construct a project is not reasonably available (e.g., the specific Tier IV equipment needed is not available within Riverside County within the scheduled construction period).

Level of Significance After Mitigation

As shown in Table 4.3-10, the implementation of Mitigation Measures AQ-2A and AQ-2B would reduce ROG and NO_X emissions during construction activities to levels that do not exceed the SCAQMD's regional CEQA thresholds. Thus, potential construction emissions would be a **less than significant impact with mitigation.**

Localized Construction Emissions. The Project's maximum daily construction emissions (for the 10% development scenario shown in Table 4.3-9) are compared against the SCAQMD's-recommended LSTs in Table 4.3-11 (Construction Emissions Localized Significance Thresholds Analysis). Consistent with the SCAQMD's LST methodology, the emissions included in the construction LST analysis are on-site emissions only, and the LST thresholds against which potential on-site emissions are compared against are based on the project size, in acres, as determined using the specific equipment list generated by CalEEMod and the equipment activity estimates contained in the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* (SCAQMD 2016).[6] The LST thresholds are for SRA 30 (Coachella Valley), the SRA in which the proposed Project is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

Based on the use of two excavators, one dozer, one grader, two crawler tractors, and two scrapers during the grading construction phase, potential on-site construction emissions were estimated against the SCAQMD's thresholds for a 5-acre project size[7]. The emissions presented in Table 4.3-11 include the application of dust control measures commensurate with SCAQMD Rule 403, as described above under the regional construction emissions discussion. Construction phases were combined (i.e., assumed to generate emissions at the same time) to account for intense growth over the Planning Area during the next 20 years.

[6] According to the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, the maximum number of acres disturbed on the peak day of use per crawler tractor, grader, and rubber tired dozer is 0.5 acres per 8 hour day, while the maximum number of acres disturbed on the peak day of use per scraper is 1 acre per 8 hour day.

[7] The SCAQMD's maintains LST thresholds for 1-, 2-, and 5-acre projects. The use of a 5-acre LST threshold in this EIR analysis is considered conservative (i.e., likely to overestimate impacts) since the emissions modeling conducted for the analysis is based on approximately 682 acres of total development This means the emissions evaluated would occur over a larger area than the 5-acre LST thresholds are based on.

Table 4.3-11
Construction Emissions Localized Significance Thresholds Analysis

Construction Phase	Maximum On-Site Construction Emissions (lbs/day)(A)			
	NO_X	CO	PM_{10}(B)	$PM_{2.5}$(B)
Demolition	5.0	23	0.3	0.3
Site Preparation	2.0	21	7.1	3.9
Grading	3.3	33	3.5	1.5
Building Construction	6.0	17.4	0.3	0.3
Paving	1.2	17.3	<0.0(C)	<0.0(C)
Architectural Coating	1.7	1.8	0.1	0.1
Total Overlapping Construction Emissions	19.2	114	11	6
SCAQMD LST Threshold(D)	304	2,292	14	8
Threshold Exceeded?	No	No	No	No

Source: MIG, 2019 (see Appendix D) and SCAQMD 2009, 2016.
(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted in this report. Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.
(B) Fugitive dust emissions estimates include application of fugitive dust control measures as required by SCAQMD Rule 403 and City Municipal Code Chapter 15.84, including watering exposed areas (3x) daily.
(C) <0.0 does not mean emissions are zero; rather, it means emissions are greater than 0.00, but less than 0.1.
(D) LST threshold is based on 5-acre project size and 25-meter receptor distance. Pursuant to the SCAQMD's *Final Localized Significance Threshold Methodology* (SCAQMD 2008, page 3-3), the threshold for a 25-meter receptor distance in SRA 30 was evaluated.

Level of Significance Before Mitigation (Local Significance Threshold)

As shown in Table 4.3-11, the maximum daily on-site emissions generated during project construction would not exceed the SCAQMD's recommended LST thresholds. Thus, this impact would be less than significant.

Mitigation Measures

No significant impact has been identified; thus, no mitigation is required.

Operational Emissions

Regional Operational Emissions. If adopted, the proposed General Plan Update would accommodate new residential and non-residential land uses, some of which would involve replace existing development. Overall, project implementation would increase residential dwelling units and non-residential square footage in the City under year 2040 growth conditions. The net change in land uses associated with Project growth is shown in 4.3-12.

Table 4.3-12
Project Growth and Net Land Use Change

CalEEMod Land Use Inputs		General Plan Development Levels(A)		
Type	**Subtype**	**Existing (2019)**	**Projected Growth (2040)**	**Net Change**
Residential	Single Family Housing	15,650 DU	33,056 DU	+17,406 DU
Residential	Multi-Family Housing	3,450 DU	20,608 DU	+17,158 DU
Retail	Regional Shopping Center	1,149,984 SF	7,105,123 SF	+5,955,139 SF
Industrial	General Light Industrial	1,357,111 SF	12,596,506 SF	+11,239,395 SF
Recreational	Hotel/Motel	755 Rooms	1,052 Rooms	+297 Rooms
Educational	Elementary School	6,326 Students	12,900 Students	+6,574 Students

Source: MIG 2019 (see Appendix D).
(A) SF = Square Footage. DU = Dwelling Units.

Growth under the Project would result in long-term regional emissions of criteria air pollutants associated with the operation of area sources, energy sources, and mobile sources. Area source emissions, which are widely distributed and made of many small emissions sources (e.g., landscaping equipment, consumer products, painting operations, etc.), were modeled according to the size and type of land uses proposed. Energy sources, which include natural gas combustion for heating and other purposes, were also modeled based on the size and type of land uses included in the Project's 2040 growth forecast. Mobile-source emissions were modeled based on the daily vehicle trips that would result from the proposed Project. The net change in emissions of regulated air pollutants that would occur with implementation of the General Plan was modeled using CalEEMod, V. 2016.3.2. The net change in operational emissions for the Project was modeled based on the Project's 2040 growth projection, using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for proposed development intensities within the Planning Area was adjusted to reflect proposed development conditions (considering allowable floor-to-area ratio, acreage in the Planning Area, etc.).
- **Area Sources:** Woodstoves and hearths were excluded from new development pursuant to SCAQMD Rule 445.
- **Energy Use and Consumption:** The residential default electrical energy intensity values were adjusted downwards by a factor of 0.5 to reflect increased energy efficiency and solar photovoltaic requirements of the 2019 energy code (CEC, 2018). Similarly, the non-residential default light energy intensity value was adjusted downwards by a factor of 0.7 to reflect increased lighting efficiency in the 2019 energy code.
- **Mobile Sources:** The default trip generation rates for proposed land use types were applied in CalEEMod. Based on these defaults, the proposed land uses would generate approximately 866,921 total daily vehicle trips per weekday. As estimated using CalEEMod, Planning Area land uses would, in 2040, generate approximately 1,640,381,960 total annual VMT (see Appendix F). Of this, approximately 1,002,674,530 VMT (61% of total annual VMT) are attributable to residential land uses; non-residential land uses account for approximately 637,707,430 VMT (39% of total annual VMT), with retail/shopping center land uses accounting for nearly 388,114,170 VMT (61% of total annual non-residential VMT).

The net change in long-term operational emissions that would be generated by Project growth is shown in Table 4.3-13. As explained in Section 4.3.1, under the "Existing Emissions Levels in the Planning Area" discussion, the net change in emissions evaluated in this EIR is based on the difference between the existing land uses under future year 2040 conditions and the proposed Project land uses under 2040 growth conditions.

Table 4.3-13
2040 Project Growth Forecast Operational Emissions

Emissions Scenario	Maximum Daily Pollutant Emissions (Pounds per Day)(A)									
	ROG	NO_X	CO	SO_2	PM_{10}			$PM_{2.5}$		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Project Growth Forecast Operational Emissions in Year 2040(B)										
Area Sources	3,931	800	7,488	12	0	499	499	0	499	499
Energy Sources	53	464	250	3	0	37	37	0	37	37
Mobile Source	708	6,668	6,705	44	3,964	14	3,978	1,059	13	1,073
Total(C)	4,692	7,932	14,442	59	3,964	551	4,515	1,059	550	1,609
Existing Land Uses Year 2040 Condition*(D)*										
Area Sources	2,230	309	4,451	8	-	446	446	-	446	446
Energy Sources	18	153	75	1	-	12	12	-	12	12
Mobile Source	188	1,764	1,817	12	1,083	4	1,086	289	4	293
Total(C)	2,436	2,226	6,343	21	1,083	463	1,545	289	462	752
Net Change in Emissions Levels										
Area Sources	1,700	491	3,037	3	0	53	53	0	53	53
Energy Sources	36	311	175	2	0	25	25	0	25	25
Mobile Source	520	4,904	4,888	32	2,881	10	2,892	770	10	780
Total(C)	2,256	5,706	8,100	37	2,881	88	2,969	770	87	857
SCAQMD CEQA Threshold	75	100	550	150	150			55		
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	No	**Yes**			**Yes**		

Source: MIG, 2019 (see Appendix D) and SCAQMD 2019e.
(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, NO_X, CO, SO_X emissions occur during the summer. Maximum daily PM_{10} and $PM_{2.5}$ exhaust emissions occur during the winter.
(B) The proposed General Plan 2040 CalEEMod files are based on 1/10th of the planned growth that could occur under the General Plan Update and must be increased by a factor of 10 to calculate total emissions associated with the General Plan Update in 2040.
(C) Totals may not equal due to rounding.
(D) See Table 4.3-4.

As shown in Table 4.3-13, the modeled, maximum daily operational emissions associated with potential 2040 growth conditions substantially exceed the SCAQMD's recommended regional pollutant thresholds for all criteria air pollutants, except SO_X. This increase in emissions is due to the large increase in residential and non-residential development that could occur under the General Plan Update. This development would increase:

- ROG emissions from increased use of area sources of emissions such as consumer products and landscaping equipment.
- NO_X emissions from area sources such as natural gas combustion in hearths, energy sources such as space heaters, and mobile sources (i.e., increased vehicle trips and vehicle miles travelled).

- CO emissions from area sources such as hearths and landscaping equipment and from increased vehicle trips and vehicle miles travelled.
- $PM_{2.5}$ and PM_{10} emissions from increased vehicle trips and vehicle miles travelled.

As shown in Table 4.3-13, area sources (gas fireplaces, consumer products associated with increased residential development, and gasoline powered landscaping equipment) and mobile sources (increase in vehicle trips and vehicle miles travelled) account for most of the increase in emissions estimated to occur with implementation of the General Plan Update.

The potential adverse health effects associated with the increase in criteria air pollutant emissions that could occur with implementation of the proposed General Plan Update are discussed under Impact AIR-3 below.

Level of Significance Before Mitigation (Operational)

As shown in Table 4.3-13, potential daily operational emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ associated with the General Plan Update could exceed the SCAQMD's regional CEQA thresholds. This is considered a **potentially significant impact.** To reduce operational-related emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$, the City would implement Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D. These measures would reduce GHG and criteria air pollutant emissions from area, energy, and mobile sources by promoting zero net energy standards, electric vehicle infrastructure, bicycle parking, and reductions in residential and non-residential vehicle trips and vehicle emissions.

Mitigation Measures

See Mitigation Measures AQ-2A and AQ-2B below and Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D (under Impact GHG-1).

Level of Significance After Mitigation

Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D would reduce criteria air pollutants, TACs, and GHG emissions from area, energy, and mobile sources operating within the Planning Area; however, it is not possible to quantify emissions reductions associated with these measures at this time because discrete strategies and reductions associated with Multimodal Mobility Plan, Climate Action Plan, etc. are not yet developed cannot be quantified by the City at this time. Therefore, long-term Project growth may result in emissions of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ that exceed SCAQMD thresholds. This impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

Localized Operational Emissions. The Project's maximum daily operational emissions are compared against the SCAQMD's-recommended LSTs in Table 4.3-14. Consistent with the SCAQMD's LST methodology, the emissions included in the operational LST analysis are on-site emissions only, and the LST thresholds against which these on-site emissions are compared are based on the average project size, in acres. The LST thresholds are for SRA 30 (Coachella Valley), the SRA in which the Project is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

Table 4.3-14
Operational Emissions Localized Significance Thresholds (LST) Analysis

Emissions Source(B)	Maximum On-Site Operational Emissions (lbs/day)(A)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Total Area Emissions	800	7,488	499	499
Total Energy Emissions	464	250	37	37
Total On-site Mobile Emissions(C)	334	335	199	54
Total On-site Emissions in Plan Area	1,598	8,073	735	590
Average Emissions per Acre(D)	0.09	0.46	0.04	0.03
SCAQMD LST Threshold(E)	83	673	1	1
Threshold Exceeded?	No	No	No	No

Source: MIG 2019 (see Appendix D) and SCAQMD 2009, 2016.
(A) See Table 4.3-13.
(B) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.
(C) Total on-site emissions are equal to 5% of the total mobile emissions estimated in Table 4.3-13.
(D) The Planning Area is approximately 31 square milies, or 19,840 acres in size, but CalEEMod results are based on summing the acreage for the developments identified and modeled (17,718 acres).
(E) LST threshold is based on 1.0-acre project size and 25-meter receptor distance. See Table 4.3-6.

As shown in Table 4.3-14, the total emissions from all on-site operational activities within the Planning Area would be below the SCAQMD's recommended LST threshold for a one-acre project for all pollutants. The use of one-acre LSTs at a distance of 25 meters, is considered a conservative approach, since they are the lowest LST values applicable within the Planning Area (see Table 4.3-6).

Level of Significance Before Mitigation (Localized Significance Thresholds)

As shown in Table 4.3-14, the maximum daily on-site emissions associated with implementation of the General Plan Update would not exceed the SCAQMD's recommended LST thresholds for SRA 30. Thus, this impact would be **less than significant**.

Mitigation Measures

No significant impact has been identified; thus, no mitigation is required.

C. Expose sensitive receptors to substantial pollutant concentrations?

Analysis of Impacts

Growth projected to occur under the Project could expose existing and new sensitive receptors to substantial concentrations of criteria air pollutants and TAC emissions that pose adverse health effects. The potential for the Project to expose sensitive receptors to substantial pollutant concentrations is evaluated below.

Construction Emissions
As discussed under Impact AQ-2, Project growth would generate emissions, including emissions of DPM (a TAC), during construction activities. These emissions would occur intermittently over the approximately 20-year growth period associated with the Project. The potential adverse health risks associated with receptor exposure to DPM would be less than significant, since 1) the use of off-road heavy-duty diesel equipment would be temporary and would combine with the highly dispersive properties of DPM; 2) additional reductions in exhaust emissions will occur in the future; and 3) construction-related activities would be short-term, incremental through time, and would occur at scattered locations throughout the Planning Area such that an individual receptor location would not be exposed to DPM exposure for a prolonged period of time. In addition to these factors, Mitigation Measure AQ-2A requires development projects to use equipment that meets U.S. EPA Tier IV emissions standards, which would reduce DPM emissions by approximately 84%, as compared to default equipment assumptions contained within CalEEMod.

Level of Significance Before Mitigation

As shown in Table 4.3-11, the maximum daily on-site emissions generated during project construction would not exceed the SCAQMD's recommended LST thresholds. In addition, construction DPM emissions would occur intermittently throughout the Planning Area; however, these emissions would not result in significant adverse health risks due to the temporary and dispersed nature of these emissions. **Thus, this impact would be less than significant**.

Mitigation Measures

No significant impact has been identified; thus, no mitigation is required.

Operational Emissions - Increases in ROG, NOx, and PM and Impacts on Class I Lands
As described in Section 4.3-1, most commonly regulated air pollutants including NO_X, PM, CO, etc. can cause adverse human health effects and both the U.S. EPA and CARB regulate these air pollutants on the basis of human health and/or environmental criteria. As shown in Table 4.3-14, the potential emissions of ROG, NO_X, and PM occurring under the General Plan Update's 2040 growth conditions would not exceed SCAQMD-recommended LSTs for SRA 30. The SCAQMD's LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable ambient air quality standards. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS is intended to protect the most sensitive individuals. Since the amount of emissions (in terms of pounds per day) occurring under the General Plan Update would not exceed SCAQMD LSTs, it is reasonable to assume these emissions levels would not result in significant local adverse health impacts.

As shown in Table 4.3-13, the potential emissions of ROG, NO_X, and PM occurring with implementation of the General Plan Update could exceed SCAQMD-recommended regional significance thresholds. ROG and NO_X are ozone precursor pollutants, and the Coachella Valley is designated nonattainment of state and federal ozone standards; the Valley is also designated nonattainment for state and federal PM_{10} standards. Similar to the adjacent South Coast Air Basin, which is also under the jurisdiction of the SCAQMD, the Valley's O_3 nonattainment designation is generally due to a combination of "emissions from the nation's second largest urban area, meteorological conditions adverse to the dispersion of those emissions, and mountainous terrain surrounding the Basin that traps pollutants as they are pushed inland with the sea breeze"

(SCAQMD 2017b, pg. 2-1). NO_X combines with VOCs in the presence of sunlight to form ground-level ozone. The chemical reactions that lead to ozone formation is typically highest on hot, sunny days (the SCAQMD's 2016 AQMP considered ozone season to be May to September). The Coachella Valley has less overall development than the South Coast Air basin and, therefore, ozone concentrations are usually lower in the Valley. In contrast, the Valley typically has higher PM_{10} concentrations than the South Coast Air Basin. This is because the Coachella Valley is "subject to frequent high winds that generate wind-blown sand and dust, leading to high episodic PM_{10} concentrations, especially from disturbed soil and natural desert blow sand areas . . . On some of the high days, long-range transport of wind-generated dust and sand occurs with relatively light winds in the Coachella Valley, when entrained dust from desert thunderstorm outflows travels to the Coachella Valley from the desert areas of southeastern California, Arizona, Nevada or northern Mexico. All days in recent years that exceeded the 24-hour federal PM_{10} NAAQS at Indio, Palm Springs, and Mecca would not have exceeded that standard except for the contribution of windblown dust and sand due to strong winds in the upwind source area (high-wind natural events)" (SCAQMD 2017b, pg. 7-14). As described in Section 4.3.1, Joshua Tree National Park is also impacted by ozone and visibility issues, although these conditions have at the park over time (see Table 4.3-2).

Although implementation of the General Plan Update would increase ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions within the Salton Sea Air Basin by approximately 2,250 pounds per day (603 tons per year), 5,700 pounds per day (1,181 tons per year), 2,970 pounds per day (656 tons per year), and 857 pounds per day (198 tons per year) respectively (see Table 4.8-13 and Appendix D), it is not possible at this time to estimate what the adverse health and other air quality effects (e.g., impacts on Class I lands) associated with this mass increase in criteria air pollutant emissions would be for several reasons. First, to estimate potential adverse health effects from regional emissions, it is necessary to have information on the sources of the ozone and PM emissions, such as the location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors exposed to the emissions (SCAQMD 2015b). While the general nature of the emissions sources occurring with implementation of the General Plan Update is known (i.e., area source, energy source, mobile source, etc.), the specific location of these sources within the Planning Area is not known, nor is other information, including source emission rate, exit velocity, operating characteristics (e.g., daytime or nighttime, seasonal or steady-state), etc. In addition, as described under Impact AQ-2, approximately 23% of the ROG emissions, 86% of the NO_X emissions, and more than 90% of the $PM_{2.5}$ and PM_{10} emissions estimated to occur under the 2040 growth conditions would be from mobile sources (i.e., vehicle trips) that would potentially travel on numerous local and regional roadways throughout the Planning Area and beyond that would be subject to varying meteorological and topographical influences.

Second, the SCAQMD has stated (SCAQMD 2015b, pgs. 10-11):

> "For the so-called criteria pollutants, such as ozone, it may be more difficult to quantify health impacts . . . It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources . . . Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes . . . However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing NOx by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. SCAQMD staff does not currently know of a way to accurately quantify

> ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects."

Although it is not possible to specifically quantify the adverse health and other air quality effects that may or may not occur due to the increase in ROG, NO_X, and PM emissions that would occur with implementation of the General Plan Update, the SCAQMD has also stated (SCAQMD 2015b, pgs. 13-14):

> "A project emitting only 10 tons per year of NOx or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models that are currently used to determine ozone levels. Thus, in this case it would not be feasible to directly correlate project emissions of VOC or NOx with specific health impacts from ozone. This is in part because ozone formation is not linearly related to emissions. Ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology and seasonal impacts, and because ozone is formed sometime later and downwind from the actual emission."

The emissions modeling conducted for the project indicates implementation of the General Plan Update would increase ROG, NO_X, and PM emissions by approximately hundreds of tons per year (for ROG and PM) and more than one thousand tons per year (for NO_X). These values are substantially above the 10 tons per year referenced in the above SCAQMD statement regarding detectable changes in regional air quality models, but also substantially below the emissions reductions that reduced ozone concentrations by 9 parts per billion, as modeled by the SCAQMD for the 2012 AQMP. As described above, it is not possible for the City to transform the mass increase in ROG, NO_X, and PM emissions that could occur with implementation of the General Plan Update into quantifiable health risks for several specific reasons; however, given that implementation of the General Plan would not result in ROG, NO_x, and PM emissions that exceed SCAMQD LSTs, this impact is considered to be less than significant.

Level of Significance Before Mitigation

As shown in Table 4.3-14, the maximum daily on-site emissions associated with implementation of the General Plan Update would not exceed the SCAQMD's recommended LST thresholds for SRA 30. Thus, this impact would be **less than significant**.

Mitigation Measures

No significant impact has been identified; thus, no mitigation is required.

CO Hotspots

As shown in Table 4.8-13, the proposed Project would result in increases in CO emissions that exceed SCAQMD regional thresholds; however, as shown in Table 4.8-14, the proposed Project would not result in CO emissions that exceed SCAQMD localized significance thresholds for SRA 30. Furthermore, based on the TIA prepared for the Project (see Appendix F), the maximum number of vehicles moving through any study intersection under the Project's 2040 growth conditions would be 6,039 vehicles through the intersection of Palm Drive and Varner Road (during PM peak hour). This level of traffic is substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis (See Section 4.3.3). Therefore, the Project would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

<u>*Level of Significance Before Mitigation*</u>

As shown in Table 4.3-14, the maximum daily on-site emissions associated with implementation of the General Plan Update would not exceed the SCAQMD's recommended LST thresholds for SRA 30. In addition, the General Plan Update would not increase vehicle trips to levels associated with CO hotspots. Thus, this impact would be **less than significant**.

<u>*Mitigation Measures*</u>

No significant impact has been identified; thus, no mitigation is required.

Exacerbation of Existing Sources of Pollutants

Project growth would add new residential development in the Planning Area and could place new, sensitive receptors in proximity to existing sources of emissions such as the I-10, SR-62, and local stationary sources of emissions.

Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), projects are not required to analyze how existing conditions might impact a project's future users or residents. As such, this analysis does not focus on potential, future receptor exposure to existing emissions from existing sources of pollutants in and near the Planning Area. Rather, it focuses on the incremental increase in pollutant concentrations and associated impacts (including adverse health impacts) that could occur if existing operations were to change as a result of Project growth.

Under the 2040 growth projection, the Project would increase the number of residents in the Planning Area from approximately 48,550 people to approximately 136,402 people, an increase of 87,852 people. The Project would also result in a net increase of approximately 17,194,534 square feet of non-residential building square footage (primarily office, retail, and industrial land uses) and 1,052 hotel rooms. The growth envisioned under the Project would generate long-term emissions, primarily associated with area and mobile sources that would combust natural gas or gasoline. As shown in Table 4.3-14, emissions of operations-related criteria air pollutants would be below SCAQMD localized significance thresholds and would not result in, nor substantially exacerbate, substantial pollutant concentrations at sensitive receptor locations.

<u>*Level of Significance Before Mitigation*</u>

The General Plan Update would not exacerbate existing sources of pollutants in and near the Planning Area. Thus, this impact would be **less than significant**.

<u>*Mitigation Measures*</u>

No significant impact has been identified; thus, no mitigation is required.

Additional Information on Existing Sources of Pollutants

The Project could result in new sensitive receptors being exposed to significant sources of TAC emissions. The CARB *Air Quality and Land Use Handbook* recommends avoiding the siting of new sensitive land uses (e.g., residences, schools, etc.) within:

- Within 300 feet of large gasoline fueling stations (with a throughput of more than 3.6 million gallons of gasoline per year);

- Within 300 feet of dry cleaning operations;
- Within 500 feet of freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day; and
- Within 1,000 feet of a major rail service or maintenance yard.

A review for gas stations and dry cleaning facilities within the Planning Area indicates there may be no dry cleaning facilities and approximately 5 gas station facilities located within the City. The gas stations are generally located along Palm Drive. There are existing, residential receptors near these facilities, in some cases within 300 feet. I-10 is also a major roadway with an ADT of more than 100,000 near the City; however, the Project does not propose siting new sensitive receptors within 500 feet of this roadway.

Although the potential exists for the Project to result in new sensitive residential receptors near existing sources of emissions, the Project would not exacerbate pollutant concentrations or health risks associated with emissions sources and, therefore, would not materially change the existing environmental risks present in the project area.

D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

While odors do not present a health risk of themselves, they are often considered a nuisance by people who live, work, or otherwise are located near outdoor odor sources. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed General Plan Update does not support such sources; however, it would result in construction activities, increase residential development within the Planning Area, including mixed-use residential development that could be located close to retail, restaurant, and other commercial land uses that may generate localized sources of odors that may or may not be objectionable to nearby residential land uses. In addition, the General Plan Update would continue to permit and expand cannabis cultivation within the Planning Area.

Construction occurring within the Planning Area could produce odors from fuel combustion or solvents/paints used. These odors would be temporary, quickly disperse, and would not affect a substantial number of people.

Restaurant, commercial, and other potential operations that could generate odors are prohibited from emitting obnoxious odors or fumes pursuant to Municipal Code Section 17.40.190 and would not result in adverse effects on residential receptors.

Cannabis cultivation operations are associated with a strong odor. In general, the larger the size of the cultivation activity and the closer it is to sensitive uses, the greater the potential for odor to be evident. Much of the strong odor associated with cannabis cultivation and processing as well as commercial cannabis products comes from a class of aromatic, organic compounds known as terpenes. Terpenes are not specific to cannabis; they are among the most common compounds produced by flowering plants, vary widely between plants, and are responsible for the fragrance of many flowers typically associated with non-objectionable odors, such as lavender. Different strains of cannabis emit a wide variety of odors with different levels of potency. The odor may be detectable beyond the cultivation site property boundaries depending on the size of the facility and the specific climatic and topographic conditions that prevail near the cultivation site. In general, cannabis odors tend to lessen during cooler temperature and worsen with higher temperatures, and wind patterns have the potential to increase or decrease the intensity of cannabis odors depending on whether winds are blowing towards or away from nearby receptors. Outdoor cultivation has the greatest potential to expose receptors to odors, particularly during the final phase of the growing cycle (typically late summer or early fall); however, indoor and mixed light cultivation can affect surrounding receptors if ventilation systems are ineffective. Indoor cultivation can also result in flowering at different and/or multiple times of the year. Pursuant to Municipal Code Section 5.50.150, cannabis facilities would be required to provide sufficient odor absorbing ventilation and exhaust systems so that cannabis-related odors generated inside a facility are not detectable outside the facility. Therefore, cannabis operates would not result in significant odors that would affect a substantial number of people.

Level of Significance Before Mitigation

Impacts related to odors will be **less than significant**.

Mitigation Measures

No significant impact has been identified; thus, no mitigation is required.

E. Would the project cause substantial adverse cumulative impacts with respect to air quality?

Analysis of Impacts

As described in Section 4.3.1, the Coachella Valley is designated nonattainment for national and State O_3 and PM_{10} standards. The SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

Level of Significance Before Mitigation

The growth that could occur under the Project's 2040 growth conditions would be inconsistent with the 2016 RTP/SCS growth forecasts and, as discussed under Impact AQ-2 below, could result in construction (ROG and NO_X) and operational (ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$) emissions that exceed the SCAQMD's recommended regional CEQA thresholds. Although the mass amount of emissions attributable to a single project (i.e., pounds per day) does not necessarily contribute to air pollution levels measured throughout the Coachella Valley and in or near the City, the SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. Since potential growth under the General Plan Update would be inconsistent with current AQMP projections and could lead to construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed Project could increase the frequency and/or severity of air quality violations in the Coachella Valley or otherwise impede attainment of air quality standards, particularly national and state O_3 and PM_{10} standards. This is considered a **potentially significant impact**.

Mitigation Measures

See Mitigation Measures AQ-2A and AQ-2B (under Impact AQ-2) and Mitigation Measures GHG-1A, GHG-1B, GHG-1C, and GHG-1D (under Impact GHG-1).

Level of Significance After Mitigation

The growth that could occur under the Project would be inconsistent with the 2016 RTP/SCS growth forecast and result in emissions that could increase the frequency and/or severity of air quality violations in the Coachella Valley, or otherwise impede attainment of air quality standards. Therefore, this impact would be ***significant and unavoidable***.

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List of Acronyms, Abbreviations, and Symbols

Acronym / Abbreviation	Full Phrase or Description
AB	Assembly Bill
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon monoxide
DPM	Diesel particulate matter
EIR	Environmental Impact Report
GVWR	Gross vehicle weight rating
H_2S	Hydrogen sulfide
HAP	Hazardous Air Pollutants
HRA	Health Risk Assessment
I	Interstate
lbs	Pounds
LOS	Level of Service
LST	Localized Significance Threshold
m^3	Cubic meter
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	Nitrogen oxide
NO_2	Nitrogen dioxide
NO_x	Oxides of nitrogen
NTP	United State National Toxicology Program
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate matter
ppb	Parts per billion
ppm	Parts per million
$PM_{2.5}$	Fine particulate matter
PM_{10}	Coarse particulate matter
ROG	Reactive organic gases
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_4^{2-}	Sulfates
SO_x	Oxides of sulfur
SRA	Source Receptor Area
SQ FT	Square Feet
TAC	Toxic Air Contaminants

Acronym / Abbreviation	Full Phrase or Description
TDM	Travel Demand Management
TIA	Traffic Impact Analysis
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
V.	Version
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
µg	Micrograms
§	Section
%	Percent
° F	Degrees Fahrenheit

4.4 – Biological Resources

This section describes the current condition of biological resources within the Planning Area and discusses potential impacts of the proposed General Plan update on natural communities, sensitive plant and wildlife species, wildlife migration corridors, and regulated wetland and water features.

4.4.1 Environmental Setting

Climate

The Planning Area is located in the western portion of the Coachella Valley with a subtropical desert climate characterized by hot summers and mild winters. The mean annual temperature in the Coachella Valley is 74 degrees Fahrenheit (F) although temperature extremes can range from the mid-twenties to over 120 F. The Coachella Valley is nestled into the western edge of the Colorado Desert and experiences limited rainfall with an annual average precipitation between two and four inches that generally occurs during the winter months but can be influenced by summer monsoonal thunderstorms off the Gulf of Mexico. The Planning Area tends to be cooler than the rest of the Valley due to its higher elevation at the foothills of the San Bernardino and Little San Bernardino Mountains. The geography of the 'pass' created by the San Jacinto and San Bernardino Mountains on the western boundary of the Coachella Valley subjects much of the Planning Area to high winds caused by the funneling of coastal air as it approaches from the Pacific Ocean.

Coachella Valley MSHCP

The Planning Area occurs entirely within the extent of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The CVMSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit. Within the Planning Area, the CVMSHCP identifies three areas of conservation: the Upper Mission Creek/Big Morongo Canyon, Willow Hole, and Long Canyon Conservation Areas (Exhibit 4.4.1). The Joshua Tree National Park, Whitewater Canyon, and Whitewater Floodplain Conservation Areas the perimeter of the Planning Area and occasionally encroach into it. Additional information on the Project's relation to the CVMSHCP is provided in section 4.4.2, Regulatory Setting.

Natural Communities And Land Uses

There are a variety of natural communities and land uses that occur in the Planning Area. A natural community is a classification describing the assemblage of organisms, physical environment, and natural processes interacting in a particular area. Natural communities and developed land use within the Planning Area are listed on Table 4.4.1 (Natural Community and Land Use Summary) and are mapped on Exhibit 4.4.2 according to information provided in the CVMSHCP.

Sand Dunes and Sand Fields

Sand dune and sand field natural communities within the Planning Area include ephemeral sand fields, stabilized desert dunes, and stabilized desert sand fields (Exhibit 4.4.2). These communities are located in the southeastern portion of the Planning Area, generally parallel to Interstate 10 approaching Edom Hill. These sandy natural communities are dynamic in terms of changing between active to stabilized substrates. Active sand communities are barren expanses of moving sand with little to no vegetation. Stabilized sand communities are characterized by dunes and accumulations that are prevented from moving due to the presence of vegetation (e.g. scattered annuals and perennial grasses).

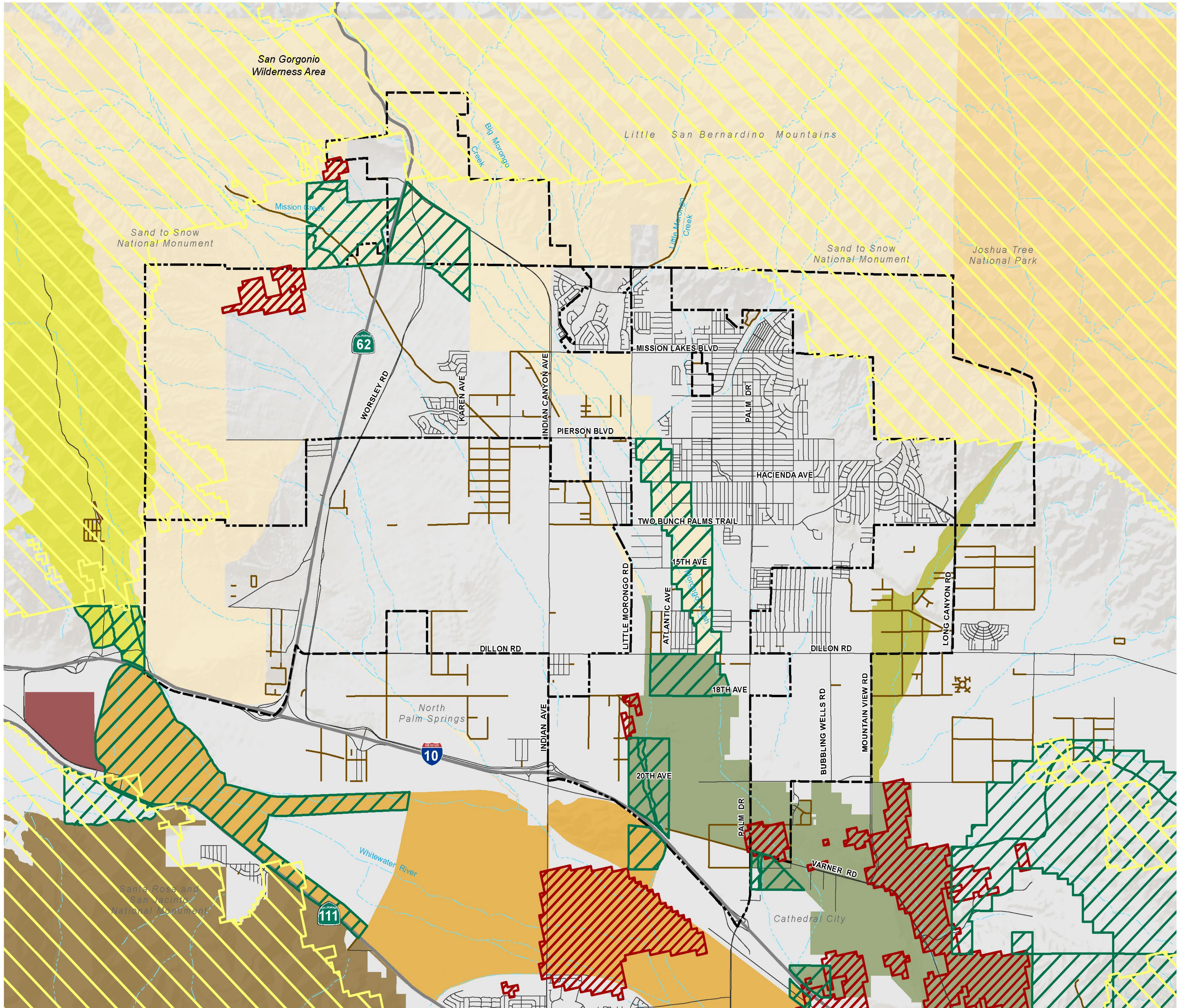
Table 4.4.1
Natural Community and Land Use Summary

Natural Community/Land Use	Acres
Sand Dunes and Sand Fields	
Ephemeral sand fields	721
Mesquite hummocks	69
Stabilized desert dunes	212
Stabilized desert sand fields	224
Stabilized shielded sand fields	26
Desert Scrub	
Mojave mixed woody scrub	4,218
Sonoran creosote bush scrub	5,262
Sonoran mixed woody & succulent scrub	17,254
Riparian and Desert Fan Palm	
Desert fan palm oasis woodland	1
Sonoran cottonwood-willow riparian forest	4
Mesquite Bosque & Desert Dry Wash Woodland	
Desert dry wash woodland	219
Developed	
Quarry (Whitewater Rock)	68
Rural	349
Urban	7,005
Wind energy	2,321

Ephemeral Desert Sand Fields
Ephemeral sand fields are desert sand accumulations lacking dune formations but possessing episodic sand deposition that is regularly blown away by high winds. These areas can remain clear of sand for extended periods, until additional sand is deposited by a large flood or wind event. Perennial shrubs in ephemeral sand fields are scattered widely across the Planning Area and include creosote bush (*Larrea tridentata*), indigo bush (*Psorothamnus fremontii*), desert willow (*Chilopsis linearis*), and California croton (*Croton californicus*). Ephemeral sand fields are located in and around the Willow Hole Conservation Area (Exhibit 4.4.1).

Stabilized Desert Dunes
Stabilized desert dunes are characterized by prominent dune features that maintain a consistent vegetation cover of species such as creosote bush, fourwing saltbush (*Atriplex canescens*), California croton, and indigo bush. Stabilized desert dunes within the Planning Area are located in and around the Willow Hole Conservation Area (Exhibit 4.4.1).

Exhibit 4.4-1: Conservation Areas



CEHC Natural Landscape Block
CEHC Natural Area Smaller than 10,000 ac
CVMSHCP Biological Corridors and Linkages

Conservation Areas

Highway 111/I-10
Joshua Tree National Park
Long Canyon
Santa Rosa and San Jacinto Mountains
Upper Mission Creek/Big Morongo Canyon
Whitewater Canyon
Whitewater Floodplain
Willow Hole

Base Map Features

City Boundary
Sphere of Influence
Highway
Major Road
Minor Road
Water Courses

Source: City Of Desert Hot Springs and Riverside County, Coachella Valley MSHCP.
Date: August 2019.

0 0.25 0.5 1 1.5 2 Miles

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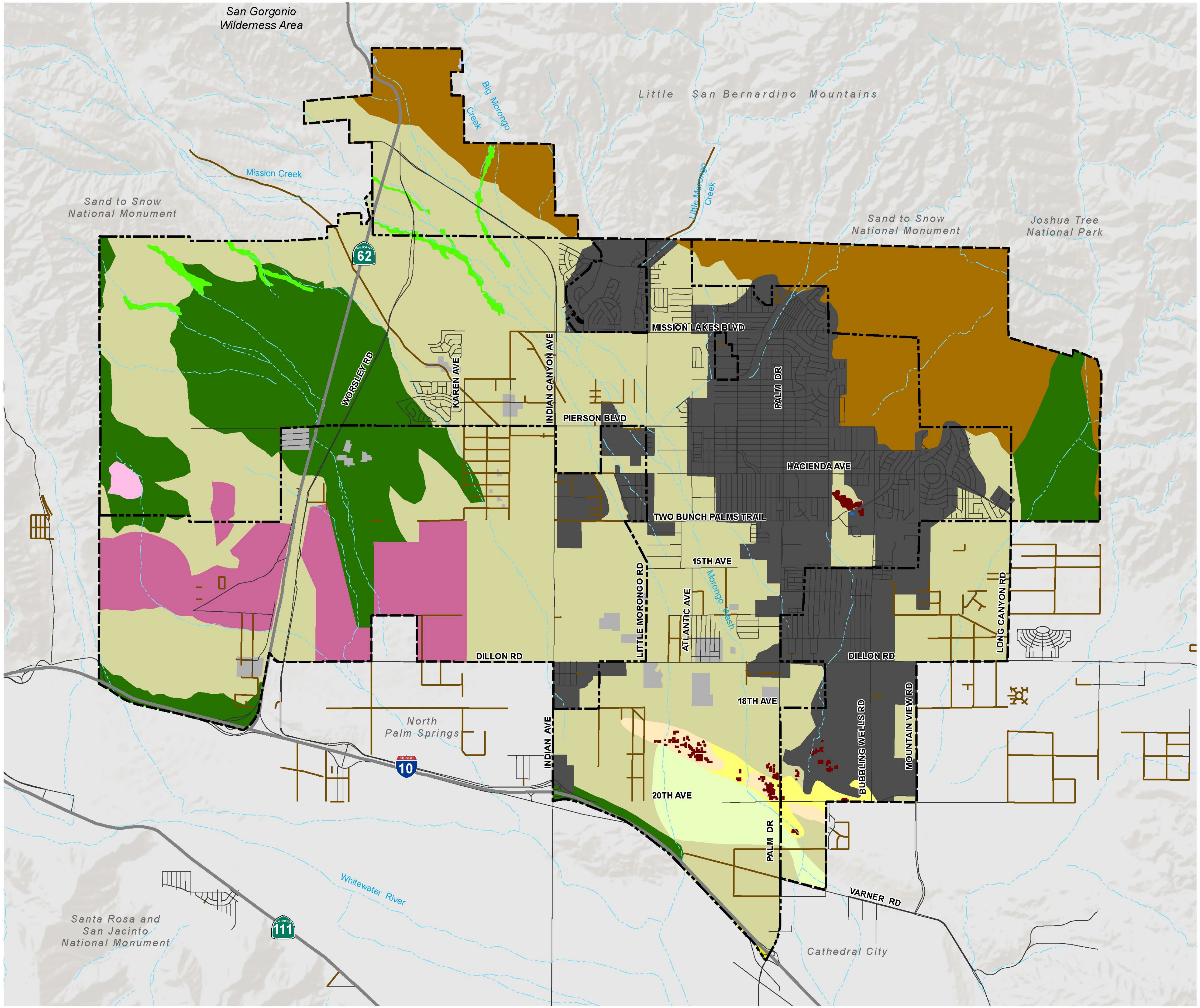
Exhibit 4.4-2: Natural Communities and Land Uses



Vegetation Communities

Sand Dune and Sand Fields
- Ephemeral sand fields
- Mesquite hummocks
- Stabilized desert dunes
- Stabilized desert sand fields
- Stabilized shielded sand fields

Desert Scrub
- Mojave mixed woody scrub
- Sonoran creosote bush scrub
- Sonoran mixed woody & succulent scrub

Riparian and Desert Fan Palm
- Desert fan palm oasis woodland
- Sonoran cottonwood-willow riparian forest

Mesquite Bosque and Desert Dry Wash Woodland
- Desert dry wash woodland

Developed
- Quarry (Whitewater Rock)
- Rural
- Urban
- Wind energy

Base Map Features
- City Boundary
- Sphere of Influence
- Highway
- Major Road
- Minor Road
- Water Courses

Source: City Of Desert Hot Springs and Riverside County, Coachella Valley MSHCP.
Date: August 2019.

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Stabilized Desert Sand Fields
Stabilized desert sand fields are characterized by sand accumulations, but lack dune formations stabilized with vegetation. Vegetation includes evergreen and/or deciduous shrubs, scattered low annuals, and perennial grasses. Stabilized desert sand fields within the Planning Area are located in and around the Willow Hole Conservation Area (Exhibit 4.4.1).

Stabilized Shielded Sand Fields
Stabilized shielded sand fields are similar to stabilized desert sand fields but have an interrupted sand supply due to the presence of a barrier such as a highway. Vegetation is these areas include evergreen and/or deciduous shrubs, scattered low annuals, and perennial grasses. These habitats are infrequent in the Planning Area and restricted to a thin strip of land north of I-10 between Palm Drive and North Indian Canyon Drive.

Mesquite Hummocks
Mesquite hummocks are composed of large groups of low growing honey mesquite (*Prosopis glandulosa*) shrubs. Honey mesquite is a deciduous, thorny shrub or small tree legume that may grow in any of three patterns based on the amount of disturbance the plant experiences. It may grow into a single stemmed tree of 20 to 40 feet if left undisturbed or a smaller tree (10 to 15 feet) or trailing bush if disturbed. Mesquite is a phreatophytic species possessing deep roots that tap groundwater reserves for their water supply. Falling groundwater tables in the region threaten to reduce the extent and health of mesquite communities. Mesquite hummocks are located in and around the Willow Hole Conservation Area and in an open space area proximal to Hacienda Avenue and Cam Campanero.

Desert Scrub
This is a broad category that includes the desert scrub communities of Mojave mixed woody scrub, Sonoran creosote bush scrub, and Sonoran mixed woody and succulent scrub (Exhibit 4.4.2). Desert scrub communities are prevalent throughout the Planning Area and commonly include species such as creosote bush, saltbushes (*Atriplex* spp.), cacti, and Joshua trees (*Yucca brevifolia*).

Mojave Mixed Woody Scrub
Mojave mixed woody scrub is a complex scrub community characterized by the presence of Joshua trees, California buckwheat (*Eriogonum fasciculatum*), and bladderpod (*Peritoma arborea*). This vegetation community is associated with shallow, overly drained soils. Mojave mixed woody scrub is prevalent in the Little San Bernardino Mountains located in the northeast portion of the Planning Area.

Sonoran Creosote Bush Scrub
Sonoran creosote bush scrub consists of broad spaced shrub growth patterns intermixed with bare ground. Sonoran creosote bush scrub flourishes on coarse, well-drained soil with salinity levels less than 0.02%. Creosote bush and burro bush (*Ambrosia dumosa*) are common in this sparsely vegetated community.

Sonoran Mixed Woody and Succulent Scrub
Sonoran mixed woody and succulent scrub is the most widespread vegetation community in the Planning Area where it is found on alluvial fans and slopes. In addition to creosote bush, cacti and other stem succulents are common with a higher plant density and greater variation than seen in other desert scrub communities. Co-dominant species found here include silver cholla (*Cylindropuntia echinocarpa*), buckhorn cholla (*Cylindropuntia acanthocarpa*), pencil cholla

(*Cylindropuntia ramosissima*), beavertail cactus (*Opuntia basilaris*), barrel cactus (*Ferocactus cylindraceus*), and ocotillo (*Fouquieria splendens).*

Riparian and Desert Fan Palm
Riparian and desert fan palm communities are associated with mesic conditions found around streams, lakes, and other waterbodies (Exhibit 4.4.2). These communities are considered to be at great risk throughout southern California. Disturbance to riparian communities within the CVMSHCP are subject to a no net loss objective.

Desert Fan Palm Oasis Woodland
Desert fan palm oasis woodlands are characterized by open-to-dense groves of California fan palms (*Washingtonia filifera*) around a water feature. The Planning Area contains a single desert fan palm oasis woodland located to the east of the intersection of 2 Bunch Palms Trail and Verbena Drive.

Sonoran Cottonwood-Willow Riparian Forest
Sonoran cottonwood-willow riparian forests consist of winter-deciduous, broad-leaved streamside forests dominated by an overstory of Fremont cottonwood and an understory of assorted willows (*Salix* spp.). These communities typically maintain deep, well-watered, loamy alluvial soils along near-channel floodplains and perennial desert rivers. This community is restricted to small, isolated stands in the northern extent of the Planning Area within the Big Morongo Canyon and Dry Morongo Creek.

Mesquite Bosque and Desert Dry Wash Woodland
Several dry washes are present within the Planning Area, including Mission Creek, Dry Morongo Wash, Big Morongo Creek, Little Morongo Creek, Super Creek, and Garnet Wash (Exhibit 4.4.2, Natural Community and Land Use Map). These natural communities contain species adapted to the intermittent water flows experienced throughout the Colorado Desert.

Desert Dry Wash Woodland
Desert dry wash woodlands are open-to-dense, drought deciduous, thorn scrub woodlands between 30 and 60 feet tall. Dominant plant species include palo verde (*Parkinsonia aculeata*), ironwood (*Olneya tesota*), and/or smoketree (*Psorothamnus spinosus*). This community occurs in washes subject to intermittent flooding, but without perennial water. Desert dry wash woodland communities are restricted to the northern reaches of Mission Creek, Big Morongo Wash, and the base of the San Bernardino Mountains.

Developed
Developed areas are common in the Planning Area (Exhibit 4.4.2). Developed land uses have been substantially altered by human-induced impacts. Vegetation in these areas is typically non-existent, landscaped, or disturbed.

Urban
Urban land uses associated with the City of Desert Hot Springs are clustered in the western portion of the Planning Area. Although much of the Urban areas are landscaped or hardscaped, remnant scrub and wash vegetation communities are common throughout these areas.

Rural
Rural land uses are most common in the center of the Planning Area. These land uses are characterized by low density residential areas. Habitats within Rural land uses maintain much of the character and species composition of their remnant vegetation communities.

Wind Energy
Wind Energy land uses are clustered in the southwest of the Planning Area. These wind turbines are widely spaced. Habitats within Wind Energy land uses maintain much of the character and species composition of their remnant vegetation communities.

Quarry
A single Quarry, Whitewater Rock, is located in the west of the Planning Area. Much of this former hilltop is either devoid of vegetation or very sparsely vegetated with Desert Scrub species.

Special Status Plans And Wildlife
The Planning Area hosts a number of sensitive plant and wildlife species which have been observed, reported, or have the potential to occur in the Planning Area. These resources include plant and wildlife species that have been afforded special status and/or recognition by federal, state, or local resource agencies. In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is due to the documented or perceived decline in its population size, geographic range, and/or distribution due to habitat loss.

Table 4.4.2 (Sensitive Species Summary) provides a list of special status plant and wildlife species known to occur in the Planning Area. Information presented therein draws on sources including, but not limited to, the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Rare Plant Inventory (RPI), Coachella Valley Multiple Species Conservation Habitat Plan (CVMSHCP), and NatureServe Explorer.

Sensitive Plants

Arizona Spurge
Arizona spurge (*Euphorbia arizonica*) is a small, reddish, perennial herb native to California. It has diminutive white or pink flowers that bloom from March to April. This species occurs in desert scrub habitats. Arizona spurge is a CNPS California Rare Plant Rank (CRPR) List 2.3 species.

California Satintail
California satintail (*Imperata brevifolia*) is a perennial grass that grows up to 5 feet in height and blooms from September to May. This species is a native of the southwestern United States from California to Texas and northern Mexico. It is found in mesic sites associated with chaparral, coastal sage scrub, desert scrub, and wetland/riparian habitats. California satintail is a CNPS CRPR List 2B.1 species.

Chaparral Sand Verbena
Chaparral sand verbena (*Abronia villosa* var*. aurita*) is a low-growing, deciduous flower with gray foliage and pink to purple flowers. This species grows in sandy soils in desert dunes, chaparral, and coastal sage scrub communities. This flower is endemic to California but threatened by flood control activities and other development. Chaparral sand verbena is a CNPS CRPR List 1B.1 species.

Cliff Spurge
Cliff spurge (*Euphorbia misera*) is a deciduous shrub with small, white flowers that bloom from January to August. It is found on coastal bluffs in San Diego, Orange, and Riverside Counties. This species blooms from January to August. Cliff spurge is a CNPS CRPR List 2B.2 species.

Coachella Valley Milk-vetch
Coachella Valley milk-vetch (*Astragalus lentiginosus* var*. coachellae*) is an erect, pink-purple flowered, winter annual or short-lived perennial covered with white-silky hairs. This species is found in desert dune and Sonoran Desert scrub habitats in sandy soil. Documented occurrences of this species are currently restricted to Riverside County. The Planning Area contains USFWS Critical Habitat for Coachella Valley milk-vetch (Exhibit 4.4.3 USFWS NWI and Critical Habitat). Coachella valley milkvetch is a Federal Endangered and CNPS CRPR List 1B.1 species.

Desert Beardtongue
Desert beardtongue (*Penstemon pseudospectabilis* ssp. *pseudospectabilis*) is a showy perennial herb with red-purple tubular flowers on a 3' spike that blooms from January to May. This species occurs on rocky slopes and sandy washes in Mojavean and Sonoran Desert scrub habitats. Desert beardtongue is a CNPS CRPR List 2B.2 species.

Desert Spike-Moss
Desert spike-moss (*Selaginella eremophila*) is a perennial rhizomatous herb that occurs in shaded rock crevices and gravelly soils in desert scrub communities and canyons and washes on the west edge of the Colorado Desert. This species forms dense mats of branching, prostrate stems with small, lance-shaped leaves that bloom from May to July. Desert spike moss is a CNPS CRPR List 2B.2 species.

Hall's Tetracoccus
Hall's tetracoccus (*Tetracoccus halli*) is a flowering, perennial, deciduous shrub with small leaves clustered along its branches. This species is found in Mojavean and Sonoran Desert scrub in Imperial, Riverside, and San Bernardino counties. It blooms from January to May. Hall's tetracoccus is a CNPS CRPR List 4.3 species.

Harwood's Eriastrum
Harwood's eriastrum (Eriastrum harwoodii) is a small, annual herb with white flowers that bloom from March to June. This species if found in Imperial, Riverside, San Bernardino, and San Diego counties. It occurs in desert dunes habitats. Harwood's eriastrum is a CNPS CRPR List 1B.2 species.

Joshua Tree Poppy
Joshua tree poppy (*Eschscholzia androuxii*) is an annual herb that is found in Joshua tree woodland and Mojavean desert scrub habitats. It occurs in desert washes on flats and slopes with sandy, gravelly, and/or rocky soils. This species occurs in Imperial, Riverside, and San Bernardino counties and blooms from February to June. Joshua tree poppy is a CNPS CRPR List 4.3 species.

Latimer's Woodland-Gilia
Latimer's woodland-gilia (*Saltugilia latimeri*) is an uncommon annual flower endemic to California. It is characterized by a tall branching stem, an array of small pink to purple flowers, and blue pollen released from the stamen. This species occurs on dry, desert slopes with sandy to rocky soils. Latimer's woodland-gilia is a CNPS CRPR List 1B.2 species.

Lincoln Rockcress
Lincoln rockcress (*Boechera lincolnensis*) is a perennial herb in the mustard family with purple flowers that bloom from March to May. This species is found in chenopod scrub and Mojavean desert scrub habitats on limestone substrates. It occurs in Inyo, Riverside, and San Bernardino counties. Lincoln rockcress is a CNPS CRPR List 2B.3 species.

Little San Bernardino Mountains Linanthus
Little San Bernardino Mountains linanthus (*Linanthus maculatus* ssp. *maculatus*) is a small desert annual found in loose, soft sandy soils on low benches along washes and canyons. It is associated with desert scrub habitat that requires full sunlight. It blooms between April and May. The primary threat to this species in the Planning Area is urbanization, as well as flood control construction, maintenance activities, and OHV activities. Little San Bernardino Mountains linanthus is a California Species of Special Concern, a CNPS CRPR List 1B.2, and a CVMSHCP Covered Species.

Mecca-aster
Mecca-aster (*Xylorhiza cognata*) is a perennial shrub with branching stems approaching 5 feet in height. Leaves are lance-shaped with toothed edges. Flowers are pale lavender to pale violet rays surrounding a yellow central disk that bloom from January to June. This species is found in Sonoran Desert scrub in steep canyon slopes, on sandstone and clay substrates. Mecca-aster is a CNPS CRPR List 1B.2 species.

Mojave Tarplant
Mojave tarplant (*Deinandra mohavensis*) is an annual herb with clustered yellow flowers that bloom from May to January. This species occurs in riparian scrub, coastal scrub, and chaparral habitats along low sand bars in riverbeds. It is found in riparian areas or ephemeral grassy areas. Mojave tarplant is a State Endangered, California Species of Special Concern, and CNPS CRPR List 1B.3 species

Narrow-leaf Sandpaper-Plant
Narrow-leaf sandpaper-plant (*Petalonyx linearis*) is perennial shrub consisting of erect stems with terminal inflorescences with multiple small, white flowers. This species occurs in Mojavean and Sonoran Desert scrub in sandy or rocky canyons. Narrow-leaf sandpaper-plant is a CNPS CRPR List 2B.2 species.

Palmer's Mariposa-Lily
Palmer's mariposa lily (*Calochortus palmeri* var*. palmeri*) is endemic to California. This perennial herb has a straight, branching stem with white to lavender flowers that bloom between April and July. This species is found in chaparral, lower montane coniferous forest, meadow, and seep habitats. Palmer's mariposa lily is threatened by development, grazing, non-native plant invasion, and OHV recreational activities. Palmer's mariposa lily is a CNPS CRPR List 1B.2 species.

Parry's Spineflower
Parry's spineflower (C*horizanthe parryi* var*. parryi)* is a California endemic found in Los Angeles, Riverside, and San Bernardino Counties. This species is a small, prostrate herb that occurs in coastal scrub, chaparral, cismontane woodland, valley, and foothill grassland habitats. It is found in dry, sandy soils on slopes and flats, sometimes at interface of two natural communities. The tiny white flowers blooms from April to June. Parry's spineflower is a CNPS CRPR List 1B.1 species.

Ribbed Cryptantha
Ribbed cryptantha (Johnstonella costata) is an annual herb with white flowers that bloom from February to May. This species occurs in Imperial, Inyo, Riverside, San Bernardino, and San Diego counties. It is found in sandy soils associated with desert dune, Mojavean desert scrub, and Sonoran Desert scrub habitats. Ribbed cryptantha is a CNPS CRPR List 4.3 species.

San Jacinto Beardtongue
San Jacinto beardtongue (*Penstemon clevelandii* var. *connatus)* is a perennial herb with pink to magenta, tubular flowers that bloom from March to May. This species occurs in Imperial, Riverside, and San Diego counties. It is found in rocky soils associated with chaparral, pinyon and juniper woodland, and Sonoran Desert scrub habitats. San Jacinto beardtongue is a CNPS CRPR List 4.3 species.

Slender Bedstraw
Slender bedstraw (*Galium angustifolium* ssp. *gracillimum)* is a stocky, perennial herb with a panicle of small yellow flowers that bloom from April to July. This species is documented in Riverside and San Bernardino counties only. It is found in granitic and rocky soils associated with Joshua tree woodland and Sonoran Desert scrub habitats. Slender bedstraw is a CNPS CRPR List 4.2 species.

Slender Cottonheads
Slender cottonheads (*Nemacaulis denudata* var*. gracilis*) are a low-growing, fragile, annual herb with wooly flowers that bloom from March to May. This species prefers well developed dunes, preferably in the desert and rarely on coastal beaches. They are primarily threatened by OHV use on sand dunes. cottonheads is a CNPS CRPR List 2B.2 species.

Spiny-hair Blazing Star
Spiny-hair blazing star (*Mentzelia tricuspis*) is an annual herb with an inflorescence of clustered cream-colored flowers with large petals that bloom from March to May. This species occurs in Inyo, Riverside, San Bernardino, and San Diego counties. It is found sandy or gravelly slopes and washes associated with Mojavean and Sonoran Desert scrub habitat. Spiny-hair blazing star is a CNPS CRPR List 2B.1 species.

Triple-Ribbed Milkvetch
Triple-ribbed milkvetch (*Astragulus tricarinatus*) is a short-lived erect perennial with leaves consisting of 17-20 leaflets that are silvery on the upper surface. This species grows in sandy and gravelly soils in dry washes or on decomposed granite or gravelly soils at the base of canyon slopes. Triple-ribbed milkvetch is a Federal Endangered, CNPS CRPR List 1B.2, and CVMSHCP Covered Species.

White-Bracted Spineflower
White-bracted spineflower (*Corizanthe xanti* var*. leucotheca*) is an annual herb found in alluvial fan scrub, Mojavean desert scrub and pinyon/juniper woodland habitats. This plant is pink to reddish with white to pink flowers lined with spiked ridges that blooms from April to June. White-bracted spineflower is a CNPS CRPR List 1B.2 species.

Sensitive Wildlife

American Badger
The American badger (*Taxidea taxus*) is a low-slung, wide-bodied, short-legged carnivore with long fore claws and a short bushy tail. This species is found throughout western and central

North America. The American badger mates in mid- to late summer and offspring are born in March or April. Habitat supporting this species is characterized by wide, open country with little groundcover. The American badger burrows underground when inactive. This species prefers feeding on small rodents such as ground squirrels or kangaroo rats but may also eat insects, reptiles, or birds if rodent populations are low. A primary threat to this species is the conversion of grassland to agricultural uses and the associated reduction in rodent populations. American badgers are a California Species of Special Concern.

Brown-Crested Flycatcher
The brown-crested flycatcher (*Myiarchus tyrannulus*) is a medium sized flycatcher with olive-brown upper parts, yellow underparts, and a pale gray throat. This species breeds in the Southwest United States between May and July and migrates south to Mexico for the winter. This flycatcher primarily eats flying insects but may eat small fruits and rarely hummingbirds. This species is primarily found in desert riparian habitats along the Colorado River although nests have been found in Morongo Valley, just north of the Planning Area. Brown-crested flycatchers require riparian thickets, trees, and shrubs for foraging and perching, such as cottonwoods, mesquites, and willows. This species also requires woodpecker-excavated cavities for nesting. Threats include the destruction of desert riparian habitat and competition for nest cavities from European starlings. Brown-crested flycatchers are on the State Watch List.

Burrowing Owl
The burrowing owls (*Athene cunicularia)* are a small, long-legged owl found throughout western and central North America. Preferred habitat includes open grasslands such as prairies, plains, and savanna although it can also be found in any open space, such as vacant lots. Burrowing owls are opportunistic residents nesting and roosting in burrows dug by other mammals or in other burrow-like features. Although most burrowing owls are migratory, both locally and long distance, southern California populations are generally considered resident. Threats to the burrowing owl include habitat loss, degradation, and fragmentation. Burrowing owls are a California Species of Special Concern.

California Glossy Snake
California glossy snakes (*Arizona elegans occidentalis*) inhabit arid scrub, rocky washes, grasslands, and chaparral. This nocturnal species prefers microhabitats of open areas and areas with soils loose enough for easy burrowing. During the daytime, it hides under rocks, in existing burrows, or uses its specialized nose to make its own burrow. The California glossy snake is active from late February until November, and preys mostly on sleeping diurnal lizards, but also eats small snakes, terrestrial birds, and nocturnally active mammals. California glossy snakes are a California Species of Special Concern.

Coachella Valley Fringe-Toed Lizard
The Coachella Valley fringe-toed lizard (*Uma inornata*) is a highly specialized reptile limited to the sand dunes of the Coachella Valley. This species hides from predators by running bipedally at high speeds and diving into the sands, where it digs below the surface. Fringe-toed lizards are primarily insectivores and active during the day. Mating occurs during the spring and summer and offspring hatch during October. Coachella Valley fringe-toed lizards are a Federally Threatened and State Endangered species and a CVMSHCP Covered Species.

Coachella Valley Giant Sand Treader Cricket
Coachella Valley giant sand treader cricket (*Macrobaenetes valgum*) is a nocturnal species that is most active during the spring. This species is an obligate sand species, occurring in sandy to gravelly-sandy soils. It is found in wind-blown sand dunes and sand fields and is negatively

impacted by sand stabilizing factors such as human activity or non-native species invasions (e.g. Saharan mustard and Russian thistle). This species prefers area of relatively high soil moisture and is therefore more common in the western extent of the Coachella Valley. Coachella Valley giant sand treader crickets are a CVMSHCP Covered Species.

Coachella Valley Jerusalem Cricket
The Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*) is a nocturnal species that requires the high humidity and soil moisture conditions that follow winter and spring rainstorms. This is species is considered a sand obligate, as it requires sandy to gravelly-sandy soils to complete its life cycle. It has been found in loose wind-blown sand drifts, dunes, and vacant lots with native vegetation (e.g. sunflowers, *Ambrosia* spp., and *Encelia* spp). Coachella Valley Jerusalem crickets are a CVMSHCP Covered Species.

Coachella Valley Round-Tailed Ground Squirrel
Coachella Valley round-tailed ground squirrel (*Xerospermophilus tereticaudus* ssp. *chlorus*) feed primarily on seeds and leaves of Mormon tea, mesquite, cacti, ocotillo, and agricultural crops, although it has been observed eating small lizards and insects. This species is associated with sand fields and dunes and is typically observed at the base of large shrubs that provide cover and burrowing opportunities. Within the Planning Area, it is primarily found in desert scrub and washes associated with the Willow Hole Conservation Area. Coachella Valley round-tailed ground squirrels are a CVMSHCP Covered Species

Coast Horned Lizard
The coast horned lizard (*Phrynosoma coronatum blainvilli*) is a relatively large, horned lizard distributed throughout the foothills and coastal areas of the Los Angeles basin and into northern Baja California. Habitat is characterized by areas with abundant, open vegetation such as chaparral or coastal sage scrub. This subspecies is extinct in approximately 45 percent of its original range primarily due to habitat loss. Coast horned lizards are a California Species of Special Concern.

Cooper's Hawk
Cooper's hawk (*Accipiter cooperii*) is a crow-sized woodland hawk found throughout the United States and Canada. Cooper's hawks in the northern portion of their territory migrate south for the winter, although Southern California populations are permanent residents. Habitat preference for this species is mature forest although in the western states, pines, hardwood, sycamores, and cottonwoods have been utilized. This species eats medium to small birds, small foraging animals, reptiles and amphibians. This species utilizes inland migration routes instead of coastal routes. Population decline occurred between the 1940s and the 1970s due to heavy use of pesticides, however populations have slowly recovered since the ban on the use of dichlorodiphenyltrichloroethane (DDT). At the extreme north of the Planning Area, suitable habitat for this species is restricted to small, isolated patches of riparian vegetation associated with Big Morongo Creek and Dry Morongo Creek. Cooper's hawks are on the State Watch List.

Crissal Thrasher
Crissal thrashers (*Toxostoma crissali*) are a secretive, ground-dwelling species that forages in dense cover. It is difficult to observe visually but produces a loud, melodius song year-round. This species occupies mesquite hummocks and thickets of acacias, arrowweed, and desert saltbush scrub. Crissal thrashers are a California Species of Special Concern and a CVMSHCP Covered Species.

Desert Tortoise
Desert tortoises (*Gopherus agassizi*) are widely distributed throughout a variety of habitats ranging from deciduous forest in Mexico, across the Sonoran and Mojave Deserts, to the edge of the Colorado Plateau in Utah. Locally, desert tortoise populations are found along the foothills of the Little San Bernardino and San Bernardino Mountains. The breeding season for this species occurs from April through July. Threats to the desert tortoise include loss of habitat due to urbanization, death due to off-highway vehicle usage, and overgrazing by livestock. Desert tortoises are a Federal and State Threatened species and a CVMSHCP Covered Species.

Flat-Tailed Horned Lizard
The flat-tailed horned lizard (*Phrynosoma mcallii*) is found in stabilized or partially stabilized sand flats and dunes but rarely on active dunes. Found in the lower elevations of the Coachella Valley, this species avoids predators by flattening itself against the ground and remaining immobile until the threat has passed. Like similar species, the flat-tailed horned lizard eats ants. This species hibernates during the winter, mates during the spring, and hatches offspring in late July through September. Flat-tailed horned lizards are a California Species of Special Concern and a CVMSHCP Covered Species.

Least Bell's Vireo
Least Bell's vireo (*Vireo bellii pusillus*) is a small songbird that is found in dense brush, mesquite, willow-cottonwood forest, streamside thickets, scrub oak, moist woodlands, and woodland edges. Least Bells' vireo is migratory, moving into Southern California near the end of March and leaving for the cape region of Baja California in late July to September, although some may overwinter in the US. Primary threats include loss of habitat to urbanization and infrastructure projects and nest parasitism by cowbirds. At the extreme north of the Planning Area, suitable habitat for this species is restricted to small, isolated patches of riparian vegetation associated with Big Morongo Creek and Dry Morongo Creek. Least Bell's vireos are a State and Federal Endangered species.

Le Conte's Thrasher
Le Conte's thrasher (*Toxostoma lecontei*) is a medium sized thrasher with a gray to gray-brown body and a long, downcurved bill. This ground foraging species is a non-migratory resident of the southwest and is found in open desert washes, desert scrub, alkali desert scrub, and desert succulent shrub habitats. Le Conte's thrasher breeds from January to June and normally feeds on small insects and arthropods although it will also eat seeds, small lizards, and other small vertebrates. The primary threat to Le Conte's thrasher is the loss of habitat to urban or agricultural uses. Other threats include OHV activities, fire, pesticide use, shooting, collisions with cars, and predation by domestic cats. Le Conte's thrashers are a California Species of Special Concern and a CVMSHCP Covered Species.

Loggerhead Shrike
Loggerhead shrikes (*Lanius ludovicianus*) are thick-bodied songbirds with gray, white, and black plumage. This species is found in broken woodlands, savannah, pinyon-juniper, Joshua tree, riparian woodlands, desert oases, desert scrub, and washes. It prefers open habitats for hunting with perches for scanning. It nests in fairly dense shrubs and brush and is often seen along mowed roadsides with access to fence lines and utility poles. Loggerhead shrikes are a California Species of Special Concern.

Long-Eared Owl
The long-eared owl (*Asio otus*) roosts in dense vegetation and forages in grasslands and shrublands throughout North America, Europe, and Asia. This medium sized owl has erect

blackish ear-tufts and brownish feathers with vertical streaks. Long-eared owls are partially migratory and breed from February to July. Long-eared owls are a California Species of Special Concern.

Los Angeles Pocket Mouse
The Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) is a small, rodent with salt and pepper colored fur. This species is found in lower elevation grasslands, alluvial sage scrub, and coastal sage scrub habitats with fine sandy soils, primarily in and around the Los Angeles Basin. It tends to hide under weeds and dead leaves instead of digging extensive burrows. Los Angeles pocket mice are a California Species of Special Concern.

Orange-Throated Whiptail
Orange-throated whiptail (*Aspidoscelis hyperythra*) is a slim-bodied lizard with a long tail, yellow stripes and an orange throat. This species occurs in semi-arid brushy habitats with loose soil and rocks, such as washes, stream, rocky hillsides, and coastal chaparral. Orange throated whiptails are on the State Watch List.

Pallid Bat
The large pallid bat (*Antrozous pallidus*) is found throughout the pacific United States. This species is found in a variety of habitats, including arid deserts, grasslands, and mixed conifer woodlands. The pallid bat migrates locally and roosts in caves and buildings. Pallid bats are a California Species of Special Concern.

Pallid San Diego Pocket Mouse
Pallid San Diego pocket mice (*Chaetodipus fallax pallidus*) occur in desert and coastal habitats in Southern California, Mexico, and Baja California. They have pale yellowish or orange hair on its sides and pale brown backs. This species is commonly found in sandy herbaceous areas with rocks or coarse gravel. They are nocturnal and active year-round and forage on seeds of forbs, grasses, shrubs, and insects. Pallid San Diego pocket mice are a California Species of Special Concern.

Palm Springs Pocket Mouse
The Palm Springs pocket mouse (*Perognathus longimembris bangsi*) is one of seven subspecies of pocket mice that occur in Southern California. This species occurs on gently sloping topography with sparse to moderate vegetation and loosely packed or sandy soil. Palm Springs pocket mice are nocturnal and hibernate during the winter, breeding between January and August. Palm Springs pocket mice are a California Species of Special Concern and a CVMSHCP Covered Species.

Palm Springs Round-Tailed Ground Squirrel
The Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*) is typically associated with sand fields and dune formations where it prefers to burrow into hummocks for shelter and cover, such as those formed around creosote bushes or other desert shrubs. This species feeds on seeds and leaves and occasionally small lizards and insects. Young are born in March or April and winters are primarily spent in their burrows. Palm Springs round-tailed ground squirrels area California Species of Special Concern and a CVMSHCP Covered Species.

Peninsular Bighorn Sheep
Peninsular bighorn sheep (*Ovis Canadensis nelsoni DPS*): are restricted to the east-facing slopes of the Peninsular Ranges in the Sonoran Desert life zone below 4,593 feet. This includes

the San Jacinto and Santa Rosa mountains south of the Planning Area. Bighorn sheep populations have declined substantially since the 1970s due to habitat loss, diseases, human disturbance, and predation. Peninsular bighorn sheep are a Federal Endangered and State Threatened species with full protection and a CVMSHCP Covered Species.

Prairie Falcon
Prairie falcons (*Falco mexicanus*) are an uncommon, permanent resident that ranges from southwestern deserts through the Central Valley, inner Coast Ranges, and Sierra Nevadas. The prairie falcon primarily eats small mammals and some small birds and reptiles. This bird requires a sheltered cliff ledge for cover and nesting and breeds between February and September. Prairie falcons are on the State Watch List.

Red Diamond Rattlesnake
Red diamond rattlesnakes (*Crotalus rubber*) are found along coastal San Diego County to the eastern slopes of the mountains and north through western Riverside County into southernmost San Bernardino County. This species occurs in rocky areas with dense vegetation and feeds on rabbits, rodents, lizards, birds, and other snakes. Mating occurs in March and April with young hatching from August to October. Red diamond rattlesnakes are California Species of Special Concern.

San Diego Desert Woodrat
The San Diego desert woodrat (*Neotoma lepida intermedia*) is found in sage scrub and chaparral habitat and is distinguished from other desert woodrats by having light brown gray upperparts and is lined with black. This species is primarily herbivorous feeding on leaves, seeds, berries, flower parts, and yucca shoots. Desert woodrats breed year-round with peak activity occurring between November and April. San Diego desert woodrats are California Species of Special Concern.

Southern California Legless Lizard
Southern California legless lizards (*Anniella stebbinsi*) are a small (4-7 inches), legless lizard with shiny scales, eyelids, and a shovel-shaped snout. Often locally abundant, this species is found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. This species occurs in moist warm loose soil with plant cover or leaf litter, as well as under surface objects such as rocks, boards, driftwood, and logs. It is occasional in suburban gardens in Southern California. Southern California legless lizards are a California Species of Special Concern.

Southern California Rufous-Crowned Sparrow
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) are relatively large, grayish sparrows with streaky backs and a bright reddish-brown crown. This species forages on the ground under low vegetation. It is found on steep, rocky hillsides with grasses and scattered shrubs. It may also occur in coastal bluff scrub, low chaparral on serpentine outcrops, sparse chaparral recovering from a burn, and edges of tall chaparral. This species nests on the ground at the base of rocks or low vegetation. Southern California rufous-crowned sparrows are a California Species of Special Concern

Summer Tanager
The summer tanager (*Piranga rubra*) is an uncommon summer resident and breeder in desert riparian habitat along lower Colorado River and locally in other Southern California desert habitats dominated by cottonwoods and willows. This bright red, medium-sized songbird generally feeds on insects, spiders, and small fruits and may eat bees and wasps. Summer

tanagers breed from May to August. At the extreme north of the Planning Area, suitable habitat for this species is restricted to small, isolated patches of riparian vegetation associated with Big Morongo Creek and Dry Morongo Creek. Summer tanagers are a California Species of Special Concern and a CVMSHCP Covered Species.

Townsend's Big-Eared Bat
Townsend's big-eared bats (*Corynorhinus townsendii*) are a medium-sized bat with extremely long and flexible ears. This species occurs throughout North America in a wide variety of habitats including coniferous forests, mixed wood forests, deserts, prairies, riparian, agricultural, and coastal habitats. It requires large cavities for roosting which includes abandoned buildings, mines, caves, and basal cavities of trees. Males are typically solitary, while females form maternity colonies where they raise their pups. Townsend's big-eared bats are a California Species of Special Concern

Vermillion Flycatcher
The vermillion flycatcher (*Pyrocephalus rubinus*) is a yearlong resident along the Colorado River. This small passerine bird nests in cottonwoods, willows, mesquites, and other desert riparian vegetation. It feeds on flying insects, especially bees. This species is monogamous and lay eggs between April and May with incubation taking approximately two weeks. Vermillion flycatchers are a California Species of Special Concern.

Western Yellow Bat
Western yellow bats (*Lasiurus xanthinus*) are a medium-sized bat with dense yellow fur and a brown mask. This species is found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. It roosts in trees, particularly palms, and forages over water and among trees. They appear to be expanding their range with the increased usage of ornamental palms in landscaped areas. Western yellow bats are a California Species of Special Concern

Yellow Warbler
The yellow warbler (*Dendroica p etechia*) breeds throughout most of San Diego County and several Southern California mountain ranges. This species winters in the Imperial and Colorado River valleys. This small songbird breeds in riparian woodlands, montane chaparral, and open ponderosa and mixed conifer habitats. The yellow warbler feeds primarily on insects and spiders but may eat berries. It arrives in California in April, breeds until August, and migrates out of the region by October. At the extreme north of the Planning Area, suitable habitat for this species is restricted to small, isolated patches of riparian vegetation associated with Big Morongo Creek and Dry Morongo Creek. Yellow warblers are a California Species of Special Concern and a CVMSHCP Covered Species.

Yellow-Breasted Chat
The yellow-breasted chat (*Icteria virens*) is a large songbird and an uncommon resident and migrant in coastal California and in the foothills of the Sierra Nevada. This species breeds very locally in inland Southern California. The yellow-breasted chat frequents dense, brushy thickets and riparian woodlands near water. This species arrives in California in April and migrates to Mexico and Guatemala by late September. Loss and degradation of riparian habitat have caused breeding population decline in California. At the extreme north of the Planning Area, suitable habitat for this species is restricted to small, isolated patches of riparian vegetation associated with Big Morongo Creek and Dry Morongo Creek. Yellow-breasted chats are a California Species of Special Concern and a CVMSHCP Covered Species.

Wildlife Migration Routes

Migration is essential for the survival of many wildlife species. Migratory behavior is the regularly occurring, seasonally oriented movement of a species. Migration may consist of short- or long-distance dispersal and one-and two-way migratory trips over time cycles consisting of hours to years. A migratory route is the geographic path a species takes during its migratory behavior. Freshwater aquatic species typically migrate along streams and rivers. Avian species typically utilize wetlands, water bodies, and other open space areas as resting and feeding nodes as they migrate. Groundborne species generally require unbroken, natural corridors to migrate.

Local migration is required for individuals seeking food, shelter, and mates, while long range migration is necessary to tolerable environmental conditions. Opportunities for movement are also essential for the dispersal of young to new areas of suitable habitat. Opportunities for movement and migration are important for gene flow, population recolonization, and range shifts. Movement corridors are essential for larger, terrestrial animals such as badgers, mountain lions, and bighorn sheep that require wide ranges to roam. Impediments to terrestrial wildlife movement typically includes roads, railroads, dams, urban development, and agriculture.

Southern California forms a portion of the Pacific Flyway, a generic term used to categorize the numerous and complex migratory routes utilized by bird species migrating from the Bering Strait to South America. Essentially, any waterbody or open space within the Pacific Flyway can serve as a travel node on a migratory path. Major nodes located within California include the Salton Sea, San Luis Reservoir, Mono Lake, and the Eel River. Pockets of riparian habitat and ponds within and near the Planning Area are candidates as nodes on a migratory path.

The Planning Area is located in the northwest corner of the Sonoran Desert Ecoregion of the California Essential Habitat Connectivity Project (CEHC) map (Exhibit 4.4.1). The foothills in the northern portions of the Planning Area are part of a CEHC Natural Landscape Block, defined a large area that supports native biodiversity. Furthermore, the South Coast Wildlands, in collaboration with the US Forest Service, the National Park Service, and numerous conservation groups, have designed wildlife linkages as part of the California Desert Connectivity Project. This project is designed to inform land management and conservation decision by identifying areas where maintaining or restoring connectivity is essential to conserving desert biological diversity. Linkage designs are based on a variety of modeling parameters including landscape permeability, habitat suitability, patch size and configuration, and field surveys for the movement needs of over 40 species. A linkage design connecting Joshua Tree National Park to the San Bernardino Mountains has been identified north of the Planning Area.

In addition to the CEHC and California Desert Connectivity Project, the CVMSHCP identifies linkages and biological corridors and includes objectives for maintaining and enhancing them (Exhibit 4.4.1). A biological corridor allows for species movement through urban areas and is constrained by freeways, development, or other impediments. A linkage is a larger area of habitat that provides movement between larger blocks of habitat over time, allowing for gene flow between populations.

Within the northern portion of the Planning Area, the Upper Mission Creek Conservation Area identifies a linkage area connected by two corridors under State Route 62. These corridors are in the form of two bridges, 9.5 meters at the north and 8.7 meters at the south. The area along the Morongo Wash is also identified as a biological corridor. These linkages and corridors allow species, such as the Palm Springs Pocket Mouse, to transmit genetic material between Core

Habitat in Upper Mission Creek Conservation Area and Core Habitat the Willow Hole Conservation Area to the south.

In the southern portion of the Planning Area, five 36-inch culverts under Palm Drive serve as biological corridors for species such as the Coachella Valley fringe-toed lizard, Palm Springs round-tailed ground squirrel, and Palm Springs pocket mouse. The 17.5-meter wide Mission Creek culvert under Interstate 10 at the southern boundary of the Planning Area provides a biological corridor between the Willow Hole Conservation Area and the Whitewater Conservation Area.

Table 4.4.2
Sensitive Species Summary

Species	Status			
	Federal	State	CRPR	MSCHP
Sensitive Plants				
Arizona Spurge	--	--	2B.3	--
California Satintail	--	--	2B.1	--
Chaparral Sand Verbena	--	--	1B.1	--
Cliff Spurge	--	--	2B.2	--
Coachella Valley Milk-Vetch	E	--	1B.1	--
Desert Beardtongue	--	--	2B.2	--
Desert Spike-Moss	--	--	2B.2	--
Hall's Tetracoccus	--	--	4.3	--
Harwood's eriastrum	--	--	1B.2	--
Joshua Tree Poppy	--	--	4.3	--
Latimer's Woodland-Gilia	--	--	1B.2	--
Lincoln Rockcress	--	--	2B.3	--
Little San Bernardino Mountains Linanthus	--	--	1B.2	COV
Mecca-Aster	--	--	1B.2	--
Mojave Tarplant	--	SE/SSC	1B.3	--
Narrow-Leaf Sandpaper-Plant	--	--	2B.2	--
Palmer's Mariposa-Lily	--	--	1B.2	--
Parry's spineflower	--	--	1B.1	--
Ribbed Cryptantha	--	--	4.3	--
San Jacinto Beardtongue	--	--	4.3	--
Slender Bedstraw	--	--	4.2	--
Slender Cottonheads	--	--	2B.2	--
Spiny-Hair Blazing Star	--	--	2B.1	--
Triple-Ribbed Milkvetch	E	--	1B.2	COV
White-Bracted Spineflower	--	--	1B.2	--
Sensitive Wildlife				
American Badger	--	SSC	--	--
Brown-Crested Flycatcher	--	WL	--	--
Burrowing Owl	--	SSC	--	--
California Glossy Snake	--	SSC	--	--
Coachella Valley Fringe-Toed Lizard	T	E	--	COV
Coachella Valley Giant San Treader Cricket	--	--	--	COV
Coachella Valley Jerusalem Cricket	--	--	--	COV
Coachella Valley round-tailed ground squirrel	--	--	--	COV
Coast Horned Lizard	--	SSC	--	--
Cooper's Hawk	--	WL	--	--
Crissal Thrasher	--	SSC	--	COV
Desert Tortoise	T	T	--	COV
Flat-Tailed Horned Lizard	--	SSC	--	COV

Species	Status			
	Federal	State	CRPR	MSCHP
Le Conte's Thrasher	--	SSC	--	COV
Least Bell's Vireo	E	E	--	--
Le Conte's Thrasher	--	SSC	--	COV
Loggerhead Shrike	--	SSC	--	--
Long-Eared Owl	--	SSC	--	--
Los Angeles Pocket Mouse	--	SSC	--	--
Orange-Throated Whiptail	--	WL	--	--
Pallid Bat	--	SSC	--	--
Pallid San Diego Pocket Mouse	--	SSC	--	--
Palm Springs Pocket Mouse	--	SSC	--	COV
Palm Springs Round-Tailed Ground Squirrel	--	SSC	--	COV
Peninsular Bighorn Sheep	E	T/FP	--	COV
Prairie Falcon	--	WL	--	--
Red-Diamond Rattlesnake	--	SSC	--	--
San Diego Desert Woodrat	--	SSC	--	--
Southern California legless lizards	--	SSC	--	--
Southern California rufous-crowned sparrow	--	SSC	--	--
Summer Tanager	--	SSC	--	COV
Vermillion Flycatcher	--	SSC	--	--
Western yellow bat	--	SSC	--	--
Yellow Warbler	--	SSC	--	COV
Yellow-Breasted Chat	--	SSC	--	COV

CNPS Categories
1A Plants presumed extinct in California
1B Plants that are rare, threatened, or endangered in California and elsewhere
2 Plants that are rare, threatened, or endangered in California but more common elsewhere
3 Plants about which the CNPS needs more information. This is a review list.
4 Plants of limited distribution. This is a watch list.

CNPS Threat Code Extensions
None Plant is lacking threat information
.1 Seriously endangered in California
.2 Fairly endangered in California
.3 Not very endangered in California

Federal
E Endangered
T Threatened
C Candidate Species

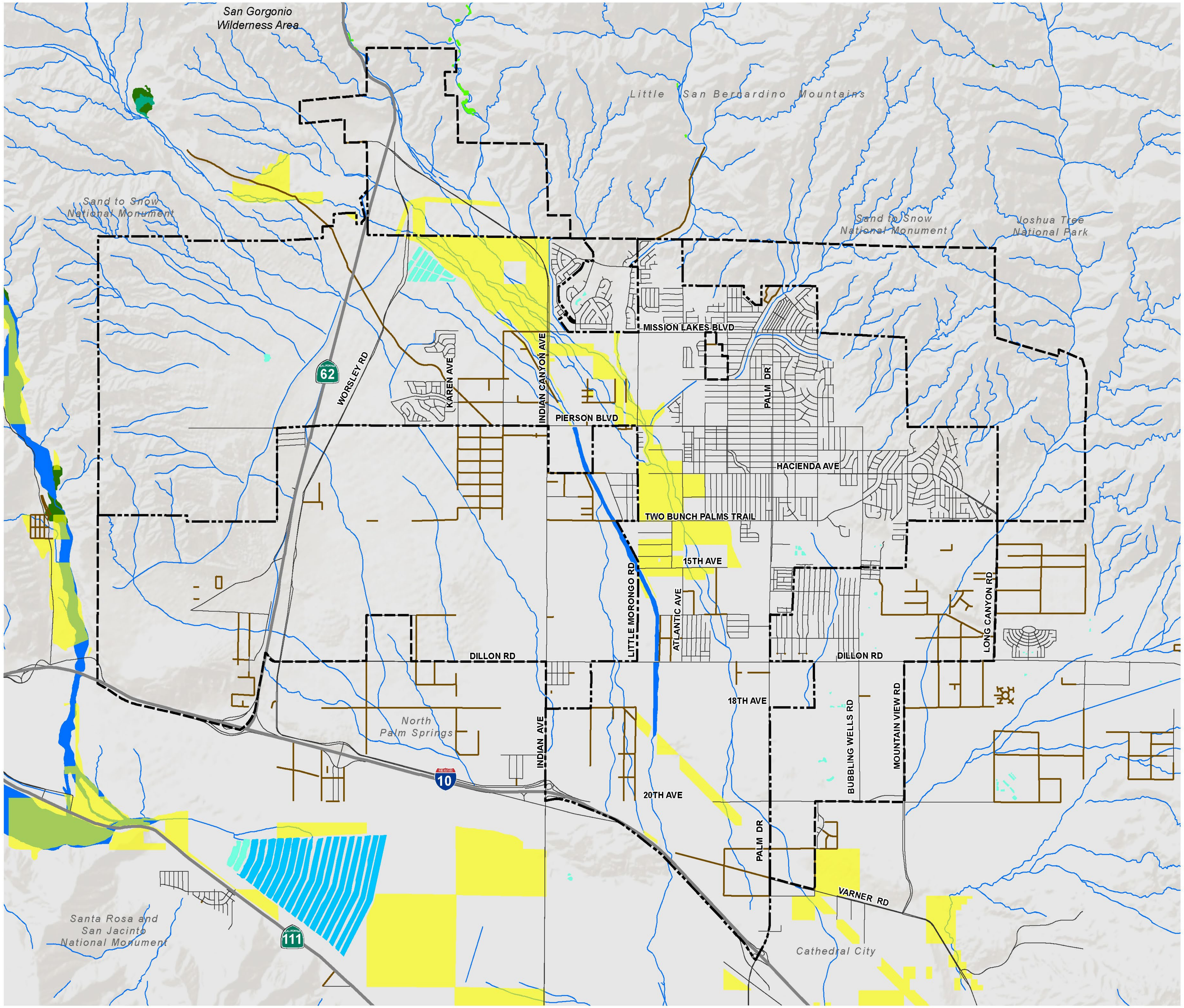
State
E Endangered
T Threatened
SA Special Animal
SSC Species of Special Concern
FP Fully Protected
WL Watch List

MSHCP
COV Covered Species

Wetlands And Waters

Wetlands are areas of soil that are saturated with moisture for all or a portion of the year. Wetlands serve not only as nodes on avian and aquatic migratory routes but also provide a unique habitat for a variety of local species. Wetlands and waters are regulated by federal, state, and local agencies, as described in section 4.4.2. The USFWS maintains the National Wetlands Inventory (NWI) and Mapping System and according to the most recent data, the Planning Area contains riverine and freshwater pond wetlands (Exhibit 4.4.3). NWI maps are intended to provide general reference only and do not define the jurisdictional limits for any wetland regulatory program. NWI riverine wetlands are located throughout the Planning Area, while NWI freshwater ponds are present at the Hidden Springs Golf Course and the Horton Wastewater Treatment Plant. These ponds are defined as permanently flooded, man-made water bodies with unconsolidated bottoms. A small area of NWI forested shrub/riparian habitat occurs in the extreme northern portion of the Planning Area, associated with Big Morongo Creek.).

Exhibit 4.4-3: USFWS and NWI and Critical Habitat



Source: City Of Desert Hot Springs and Riverside County, Coachella Valley MSHCP.
Date: August 2019.

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4.4.2 Regulatory Framework

Federal

Endangered Species Act (FESA) (1973): FESA, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA NMFS), (3) prohibitions against "taking" (meaning harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitat for listed species. Section 7 requires Federal agencies, in consultation with, and with the assistance of the USFWS or NOAA NMFS, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Both the USFWS and NOAA NMFS share the responsibility for administration of FESA.

Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10: The MBTA prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term "take" is defined as meaning, "to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires." With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

The Clean Water Act Sections 404 and 401: The United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under section 404 of the Clean Water Act (CWA) (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under section 404 include fill for development, water resource projects (e.g., dams and levees), infrastructure developments (e.g., highways, rail lines, and airports) and mining projects. Section 404 of the CWA requires a federal permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a water quality certification from the state in which the discharge originates. The discharge is required to comply with the applicable water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The EPA has delegated responsibility for the protection of water quality in California to State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

The National Pollutant Discharge Elimination System (NPDES): program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. These are considered point-sources from a regulatory standpoint. Generally, these permits are issued and monitored under the oversight of the SWRCB and administered by each regional water quality control board. Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the state's General Permit for Dischargers of Storm Water Associated with Construction Activity. All dischargers are required to obtain coverage under the Construction General Permit. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) with a monitoring program. The project will require coverage under the Construction General Permit.

State

California Endangered Species Act (CESA) (1984): CESA expands on the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code (CFGC). To align with FESA, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into CESA as threatened species but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The California Department of Fish and Wildlife (CDFW) implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the California Natural Diversity Database (CNDDB), a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities. During the CEQA review process, the CDFW is given the opportunity to comment on the potential of the proposed Project to affect listed plants and animals.

Fully Protected Species and Species of Special Concern: The classification of "fully protected" was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The CFGC sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with "fully protected" species states that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species," although take may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern (SSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologist, and others. It is intended to focus attention on these species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, as well as focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Fish and Game Code sections 3503 and 3513: According to section 3503 of the CFGC, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrow (*Passer domesticus*) and European Starling (*Sturnus vulgaris*). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW.

California Fish and Game Code section 1600-1603: Under section 1602 of CFGC, CDFW has authority over any proposed activity that may substantially modify a river, stream, or lake. CDFW requires notification for any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. The CDFW typically considers a river, stream, or lake to include its riparian vegetation, but it may also extend to its floodplain. The term "stream", which includes creeks and rivers, is defined in the CCR as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life". This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as "on, or pertaining to, the banks of a stream"; therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself".

If the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) will be prepared, which includes reasonable conditions necessary to protect those resources. The applicant may then proceed with the activity in accordance with the final LSAA. Section 1602 does not extend to isolated wetlands and waters, such as small ponds not located on drainages.

Native Plant Protection Act (1977) (CFGC §§ 1900 through 1913): The NPPA enacted the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take."

California Native Desert Plants Act: Division 23 of the California Food and Agricultural Code protects California desert native plants. Section 80072 of the Code states:

"The following native plants, or any parts thereof, shall not be harvested except for scientific or educational purposes under a permit issued by the commissioner of the county in which the native plants are growing: (1) all species of the *Burseraceae* (elephant tree) family; (2) *Carnegiea gigantean* (sahuaro cactus); (3) *Ferocactus acanthodes* (barrel cactus); (4) *Castela emoryi* (crucifixion thorn); (5) *Dudleya saxosa* (panamint dudleya); (6) *Pinus longaeva* (bristlecone pine); and (7) *Washingtonia filifera* (fan palm)."

Section 80073 of the Code states:

"The following native plants, or any parts thereof, shall not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

(1) all species of the family *Agavaceae* (century plants, nolinas, yuccas);

(2) all species of the family *Cactaceae* (cacti), except for the plants listed in section 80072 which shall be harvested under a permit obtained pursuant to that section;

(3) all species of the family *Fouquieriaceae* (ocotillo, candlewood);

(4) all species of the genus *Prosopis* (mesquites);

(5) all species of the genus *Cercidium* (palos verdes);

(6) *Acacia greggii* (catclaw);

(7) *Atriplex hymenelytra* (desert holly);

(8) *Dalea spinosa* (smoke tree); and

(9) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

The fruit of the native plants listed in this section shall be harvested without a permit."

Finally, Chapter 4: Desert Native Plant Protection, section 890420 states:

"The following desert plants, or any part thereof except the fruit, shall not be harvested or removed except under a permit issued by the Agricultural Commissioner or other applicable County Reviewing Authority: The following desert native plants with stems two (2) inches or greater in diameter or six (6) feet or greater in height":

(1) *Dalea* (*Psorothamnus*) *spinosa* (smoke tree);

(2) all species of the family *Agavaceae* (century plants, nolinas, yuccas);

(3) all species of the genus *Prosopis* (mesquites);

(4) creosote rings, ten feet or greater in diameter; and

(5) all Joshua Trees (mature and immature)."

Other Sensitive Plants – California Native Plant Society: The California Native Plant Society (CNPS), a non-profit plant conservation organization, publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California. The Inventory assigns plants to the following categories:

- 1A Presumed extinct in California;
- 1B Rare, threatened, or endangered in California and elsewhere;
- 2 Rare, threatened, or endangered in California, but more common elsewhere;
- 3 Plants for which more information is needed – A review list; and
- 4 Plants of limited distribution – A watch list.

Additional endangerment codes are assigned to each taxon as follows:

- .1 Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat).
- .2 Fairly endangered in California (20-80% occurrences threatened).
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that qualify for listing by CDFW and/or other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the CFGC. CRPR 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents.

Sensitive Natural Communities: Sensitive natural communities are habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority. Impacts to sensitive natural communities and habitats must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G)

Natural Community Conservation Planning Act: The Natural Community Conservation Planning (NCCP) program of the CDFW takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program, established pursuant to the 1991 NCCP Act (Fish and Game Code 2003) is broader in its orientation and objectives than CESA or FESA. While CESA and FESA are designed to identify and protect species that have already declined in significant numbers, the NCCP program seeks to prevent species listing by focusing on the long-term stability of wildlife and plant communities. The CVMSHCP also serves as an NCCP for a variety of habitats.

Section 401 of the Clean Water Act: RWQCBs regulate activities in “waters of the state”, including wetlands, through section 401 of the CWA. “Waters of the state” are defined by the Porter-Cologne Water Quality Control Act (see below) as “any surface water or groundwater, including saline waters, within the boundaries of the state.” While the USACE administers permitting programs that authorize impacts to "waters of the US", any USACE permit authorized for a project would be invalid unless the RWQCB has issued a project-specific water quality certification or waiver of water quality. A water quality certification requires a finding by the RWQCB that the activities permitted by the USACE will not violate water quality standards individually or cumulatively over the term of the issued USACE permit.

Porter-Cologne Water Quality Control Act: The Porter-Cologne Water Quality Act (Porter-Cologne Act) (California Water Code section 13260) requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the "waters of the state" to file a report of discharge" with the RWQCB through an application for waste discharge. The RWQCB protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs (e.g. section 404 of the CWA).

Local

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP): The Plan identifies the most valuable resource protection areas in and around the Planning Area and establishes a permanent habitat reserve and perpetual land management program while accommodating adjacent urban development and recreational uses. Without the CVMSHCP, individual 'take permits' from the USFWS would be required for individual developments that may impact sensitive species or sensitive habitat. Implementation of the CVMSHCP's objectives and provisions satisfies the legal requirements for the issuance of 'take permits' removing the need for individual permits in most cases.

By looking at multiple species and multiple habitats on a regional basis, the CVMSHCP provides a more comprehensive conservation effort than would be typical of conservation provided by individual 'take permits'. In addition, the CVMSHCP provides for a more streamlined process for development by avoiding the process of obtaining 'take permits' and providing developers a better understanding on the conservation required on any given property prior to project inception.

Within the Planning Area, the CVMSHCP identifies three areas of conservation; the Upper Mission Creek/Big Morongo Canyon, Willow Hole, and Long Canyon Conservation Areas (Exhibit 4.4.1). The Joshua Tree National Park, Whitewater Canyon, and Whitewater Floodplain Conservation Areas abut the perimeter of the Planning Area and occasionally encroach into it. Each conservation area requires 90 percent conservation, allowing 10 percent disturbance within each area overall. The CVMSHCP determines how many acres of conservation each jurisdiction is responsible for in each conservation area. It is the responsibility of each jurisdiction, as individual permittees, to establish policies and a process for determining how to obtain the conservation amount and how to distribute the development allowance. Individual projects within a conservation area receive a determination of consistency with the CVMSHCP through Joint Project Review (JPR) with the Coachella Valley Association of Governments (CVAG). Conservation areas will largely remain in a natural state but may allow for limited recreational use and infrastructure development. Specific objectives and provisions for conservation areas are available in the plan text and exhibits of the CVMSHCP.

The Upper Mission Creek/Big Morongo Canyon Conservation Area is located primarily north of the Planning Area but stretches into the Planning Area along its western border and through the center within and along Mission Creek and Big Morongo Wash. Dry Morongo Canyon, Big Morongo Canyon and Little Morongo Canyon feed Mission Creek and Morongo Wash and carry sediment from the San Bernardino and Little San Bernardino Mountains that is deposited along the banks of the washes within the Planning Area. This conservation area provides a vital sand source for blow sand habitat into the Willow Hole Conservation Area and to a lesser degree to the Whitewater Floodplain Preserve, both located to the south.

The Willow Hole Conservation Area is located along the southern reaches of Mission Creek and the Morongo Wash in the southern portions of the Planning Area and extends further into Cathedral City. The Willow Hole Conservation Area contains a total of approximately 5,600 acres of which 4,920 acres are identified for conservation.

The Long Canyon Conservation Area extends from the drainage exiting Long Canyon from the Little San Bernardino Mountains southwesterly to Mountain View Road. The area crosses only a small portion of the Planning Area near the northwest corner of Long Canyon Road and Dillon Road. Similar to the Upper Mission Creek/Big Morongo Creek Conservation Area, The Long Canyon Conservation Area is a sand source for the Willow Hole Conservation Area.

For projects located outside of conservation areas, certain provisions may be applicable depending on the project's location and certain species or habitat that have been determined to be sensitive by the CVMSHCP. For all project's located within the CVMSHCP boundaries, a conservation fee is required to be paid which is utilized for obtaining property that may not be otherwise set aside or obtained through development approvals.

The Riverside County General Plan: The plan is applicable to the Sphere of Influence portions of the Planning Area, includes policies in its Multipurpose Open Space Element designed to preserve natural resources for both ecological and recreational purposes. These policies are designed to implement the provisions of CVMSHCPs throughout the county, including the CVMSHCP. Those policies relating to biological resources are as listed follows:

Floodplain and Riparian Area Management
OS 5.1 Substantially alter floodways or implement other channelization only as a "last resort," and limit the alteration to:

- i) that necessary for the protection of public health and safety only after all other options are exhausted;
- ii) essential public service projects where no other feasible construction method or alternative project location exists; or
- iii) projects where the primary function is improvement of fish and wildlife habitat.

OS 5.2 If substantial modification to a floodway is proposed, design it to reduce adverse environmental effects to the maximum extent feasible, considering the following factors:

- i) stream scour
- ii) erosion protection and sedimentation
- iii) wildlife habitat and linkages
- iv) cultural resources including human remains
- v) groundwater recharge capability
- vi) adjacent property

vii) design (a natural effect, examples could include soft riparian bottoms and gentle bank slopes, wide and shallow floodways, minimization of visible use of concrete, and landscaping with native plants to the maximum extent possible). A site-specific hydrologic study may be required.

OS 5.3 Based upon site, specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues:

i) public safety
ii) erosion
iii) riparian or wetland buffer
iv) wildlife movement corridor or linkage
v) slopes
vi) type of watercourse
vii) cultural resources

OS 5.4 Consider designating floodway setbacks for greenways, trails, and recreation opportunities on a case-by-case basis.

OS 5.5 Preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses. Prohibit fencing that constricts flow across watercourses and their banks. Incentives shall be utilized to the maximum extent possible.

OS 5.6 Identify and, to the maximum extent possible, conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas.

OS 5.7 Where land is prohibited from development due to its retention as natural floodways, floodplains and watercourses, incentives should be available to the owner of the land including density transfer and other mechanisms as may be adopted. These incentives will be provided for the purpose of encouraging the preservation of natural watercourses without creating undue hardship on the owner of properties following these policies.

Wetlands

OS 6.1 During the development review process, ensure compliance with the Clean Water Act's section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

OS 6.2 Preserve buffer zones around wetlands where feasible and biologically appropriate.

OS 6.3 Consider wetlands for use as natural water treatment areas that will result in improvement of water quality.

Multiple Species Habitat Conservation Plans

OS 17.1 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when conducting review of possible legislative actions such as general plan amendments, zoning ordinance amendments, etc. including policies regarding the handling of private and public stand alone applications for general plan amendments, lot line adjustments and zoning ordinance amendments that are not accompanied by, or associated with, an application to subdivide or other land use development application. Every stand-alone application shall require an initial Habitat Evaluation and Acquisition Negotiation Process (HANS) assessment and such assessment shall be made by the Planning Department's Environmental Programs Division. Habitat assessment and species-specific focused surveys shall not be required as part of this initial HANS assessment for stand-alone applications but will be required when a development proposal or land use application to subsequently subdivide, grade or build on the property is submitted to the County.

OS 17.2 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when conducting review of development applications

OS 17.3 Enforce the provisions of applicable MSHCP's and implement related Riverside County policies when developing transportation or other infrastructure projects that have been designated as covered activities in the applicable MSHCP.

Environmentally Sensitive Lands

OS 18.1 Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCP's and through implementing related Riverside County policies.

OS 18.2 Provide incentives to landowners that will encourage the protection of significant resources in the county beyond the preservation and/or conservation required to mitigate project impacts. (AI 9)

OS 18.3 Prohibit the planting or introduction of invasive, non-native species to watercourses, their banks, riparian areas, or buffering setbacks.

OS 18.4 Develop standards for the management of private conservation easements and conservation lots in fee title. For areas with watercourses, apply special standards a – f (below) for their protection, and apply standards g-j (below) generally:

- i) For conservation lands with watercourses, conform easement boundaries to setback conditions that will preserve natural flows and changes in the natural boundaries of a watercourse and its protective riparian habitat.
- ii) Use only "open" fencing that permits the movement of wildlife, and limit fencing to locations outside of setbacks to watercourses (no fencing is permitted to cross the banks or channel of a watercourse, unless no other option is available).
- iii) Allow fuel modification only to the outside of buffering vegetation (riparian vegetation and vegetation on slopes that buffer the watercourse from erosion and storm water pollution).
- iv) No planting of non-native invasive species is permitted.
- v) No lighting of watercourse area is permitted.
- vi) Prohibit the use of pesticides and herbicides known to harm aquatic species and sensitive amphibians.
- vii) Ensure that lands under control of Homeowner's Associations employ an experienced non-profit conservation group or agency to manage/maintain the land.

viii) Prohibit use of recreational off-road vehicles.

ix) Prohibit grazing and alterations of vegetation except for fuel and weed management under close supervision of qualified natural lands manager.

x) For private conservation lands, especially those within criteria cells of MSHCP areas, ensure that easement and fee title agreements provide funding methods sufficient to manage the land in perpetuity.

Open Space
OS 20.1 Preserve and maintain open space that protects County environmental and other nonrenewable resources and maximizes public health and safety in areas where significant environmental hazards and resources exist.

OS 20.2 Prevent unnecessary extension of public facilities, services, and utilities, for urban uses, into Open Space-Conservation designated areas.

Desert Hot Springs General Plan
The Land Use and Open Space and Natural Resource Elements of the GPU addresses biological resources. However, policies that guide the City's evaluation of development proposals and inform CEQA adequate biological are located in the Land Use, Open Space and Natural Resources Elements. Several policies are identified in these Elements to maintain and enhance biological services in the City as well as reduce potential impacts related to implementation of the GPU:

- Policy OS-1.1: Natural Habitat and Washes.
- Policy OS-1.2: Threatened and Endangered Species.
- Policy OS-1.3: Future Development.
- Policy OS-1.4: Development Regulations
- Policy OS-1.5: Biological Resources Assessment
- Policy OS-1.6: Development Transition.
- Policy OS-1.7: Limited Public Access.
- Policy OS-1.8: Compatible Growth.
- Policy OS-1.9: Project Review.
- Policy OS-1.10: Clear Expectation and Regulatory Predictability.
- Policy OS-1.11: Maximize Connectivity.
- Policy OS-1.12: Biologically Sensitive Habitat
- Policy OS-1.15: Broaden Cooperation.
- Policy OS-1.16: Consult with Flood Control Agencies.
- Policy OS-1.17: Agency Consultation.
- Policy OS-1.18: CVMSHCP Education.
- Policy LU-11.1: Efficient Land Use Patterns.
- Policy LU-11.3: Density Transfers.
- Policy LU-11.4: Development Transitions.
- Policy LU-11.5: Flood Control.
- Policy LU-13.1: Natural Landform

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.4.3 Thresholds of Significance

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the proposed General Plan Update could result in a significant impact if it would:

A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

C. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

F. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

G. Would the project cause substantial adverse cumulative impacts with respect to biological resources?

4.4.4 Environmental Impacts

A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

The Planning Area contains suitable habitat for twenty-five special status plant species and thirty-five special status wildlife species, as described in section 4.4.1 and listed in Table 4.4.2. This list may change over time as the USFWS and CDFW alter their special-status species designations. Implementation of the proposed GPU could result in significant impacts to these species. All development projects on lands that may contain suitable habitat for special status plant and wildlife species are subject to the provisions of the federal, state, and local regulations outlined in section 4.4.2, as well as the proposed general plan policies. Compliance with USFWS and CDFW regulations (section 4.4.2), proposed GPU policies, and project-level Mitigation Measures BIO-1, BIO-2, and BIO-3 will reduce impacts to candidate, sensitive, and special status species to less than significant.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

BIO-1: Biological Resource Assessment: Consistent with GPU Policy OS-1.5: Biological Resources Assessment, resource assessments will be prepared for all discretionary development projects that contain undeveloped lands subject to CEQA. The biological resource assessment will catalog all habitat types with the Project area (and offsite impact areas), based on alliances and/or associations defined in The Manual of California Vegetation, second edition. The assessment will include an inventory of all special-status species (USFWS- and CDFW-listed threatened and endangered species, California Species of Special Concern, California Fully Protected Species, CRPR-listed species, and CVMSHCP Covered Species) with the potential to occur within each onsite habitat type. The assessment will address seasonal variation in use of the Planning Area and not be limited to resident species. It will include a discussion of both direct and indirect impacts to wildlife movement and connectivity, as well as a full accounting of all mitigation/conservation lands within and adjacent to the Project area.

The biological resource assessment will examine both onsite and offsite impact areas and will include a discussion of potential direct and indirect impacts from lighting, noise, human activity, defensible space, and exotic/invasive species. Defensible spaces should be accounted for within proposed development land use designated areas, and not transferred to adjacent open space or conservations lands.

BIO-2: Special Status Plant and Wildlife Protection: Consistent with GPU Policy OS-1.2 Threatened and Endangered Species, protocol focused surveys for sensitive plant and wildlife species will be carried out by a qualified biologist when suitable habitat for any such species is present on a proposed project site and has a potential for impact. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought. Project permitting and approval requires compliance USFWS, CDFW, and CVMSHCP regulations for any impacts to special status plant or animal species.

BIO-3: Nesting Bird Avoidance: If vegetation removal is scheduled during nesting season (February 1 - September 1), focused surveys for active nests shall be conducted by a qualified biologist no more than three days prior to the beginning of project-related activities (e.g., excavation, grading and vegetation removal). Surveys shall be conducted in proposed work areas, staging and storage areas, and soil, equipment, and material stockpile areas. For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in non-developed areas and where access is feasible). For larger raptors, such as those from the genus Buteo, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of active nests and shall concentrate on areas of suitable habitat. If nests are encountered during any preconstruction survey, a qualified biologist shall determine if it is feasible for construction to continue as planned without impacting the success of the nest, depending on conditions specific to each nest and the relative location and rate of construction activities. Any active nest(s) within a Project Site shall be monitored by a qualified biologist during construction if work occurs directly adjacent to the pre-determined nest avoidance buffer. If the qualified biologist determines construction activities have potential to adversely affect a nest, construction activities will be halted within the minimum nest avoidance buffer, depending on species and location. Construction activities within the nest avoidance buffer may proceed after a qualified biologist determines the nest is no longer active due to natural causes.

Level of Significance After Mitigation:

Less than significant with mitigation incorporated.

B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

A variety of riparian habitats and other sensitive natural communities have the potential to occur within Planning Area. Implementation of the proposed GPU could impact these habitats. Although the majority of the sensitive communities that have the potential or are known to occur in the Planning Area occur in areas where no major development is planned, projects associated with the GPU could result in adverse impacts to sensitive communities. Therefore, the proposed GPU contains Policies designed to protect and minimize adverse impacts to areas that support riparian habitat and other sensitive plant communities. Section 10 of the CVMSCHP outlines general conservation approaches for natural communities within the Planning Area; all proposed projects under the GPU will align with the goals and policies presented in the CVMSHCP.

Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream or lake; (2) substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3) deposit debris, waste or other materials that could pass into any river, stream or lake. Note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). Consistent with this requirement, the project proponent within the Planning Area will acquire the appropriate CDFW permit prior to the issuance of grading permits for any project potentially affecting riparian or wetland habitat.

These policies, in addition to the implementation of Mitigation Measures BIO-4, shall be implemented by future project proponents to reduce potential impacts to less than significant.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

BIO-4: Habitat Revegetation, Restoration, and/or Conservation: If riparian habitat or other sensitive natural communities are impacted by project-related activities, a habitat restoration and revegetation plan will be developed pursuant to U.S. Army Corps of Engineers and/or California Department Fish & Wildlife guidelines. Habitat restoration and revegetation plans will include, at a minimum: a) the location of restoration sites and assessment of appropriate reference sites; b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site

in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.
For Projects with CVMSHCP Conservation Areas, habitat revegetation, restoration, and conservation will be vetted via coordination with the appropriate resource agencies and the Coachella Valley Conservation Commission (CVCC) through the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) and Joint Project Review (JPR) processes to ensure the Project aligns with the goals and policies of the CVMSHCP (section 6.6.1.1 and 6.6.1.2).

Level of Significance After Mitigation:

Less than significant.

C. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

State and federally protected wetlands are present within the Planning Area. Implementation of the proposed GPU could result in significant impacts to these features. All development projects on lands that contain state or federally protected wetlands are subject to the regulation by the USACE, CDFW, and RWQCB. The USACE regulates the discharge of dredge or fill material into waters and wetlands of the United States. Compliance with the requirements of the CWA is required for any project proposed under the GPU. Projects would be required to avoid adverse impacts to waters and wetlands to the greatest extent possible.

Project-related impacts will be assessed on drainage patterns and water quality within, upstream, and downstream of the Project site. A wetland delineation report will be prepared to define the limits of USACE, CDFW, and/or RWQCB jurisdiction consistent with existing policies and regulations. The discharge of dredged or fill material (temporarily or permanently) into waters of the US requires prior authorization from the USACE pursuant to section 404 of the CWA. In addition, a section 401 Water Quality Certification, or waiver thereof, is required from the RWQCB. Activities that usually involve a regulated discharge of dredged or fill materials include, but are not limited to, grading, placing of riprap for erosion control, pouring concrete, laying sod, preparing soil for planting (e.g., turning soil over, adding soil amendments), stockpiling excavated material, mechanized removal of vegetation, and driving of piles for certain types of structures.

Unlike the USACE, CDFW regulates not only the discharge of dredged or fill material into streambeds, but all activities that alter streams and lakes and their associated riparian vegetation habitats. CDFW section 1602 Lake and Streambed Alteration Agreement (LSAA) would be required for all activities resulting in impacts to streambeds and their associated riparian habitats (see BIO-4)

While the proposed GPU Goals and Policies are intended to generally protect jurisdictional wetland and water features, implementation of Mitigation Measure BIO-3 will be required at the project level to ensure that no net loss of functions or values occurs, and impacts to Federally protected wetlands, as defined by section 404 of the Clean Water Act, would be less than significant.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

Mitigation Measures BIO-3 and BIO-4

Level of Significance After Mitigation:

Less than significant.

D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

Impedance of migratory routes or wildlife corridors can have a substantial impact on a species. Migratory routes are important for foraging and breeding; the hindrance of migration can affect these important activities in a species. The Planning Area includes large areas of open space, some of which are defined as biological corridors and linkages by the CVMSHCP and/or Natural Landscape Blocks by the CEHC (Exhibit 4.4.3). Implementation of the proposed GPU could result in significant impacts to these features. Compliance with Federal and State regulations related to the protection of migratory fish and wildlife species (Mitigation Measures BIO-1 and BIO-2), as well as GPU Policies that protect wildlife habitat linkages and corridors (Goal OS-1). Additional policies will maximize connectivity among conservation areas and avoid habitat fragmentation within to conserve biological diversity, ecological balance, and connected populations identified in the CVMSHCP. These policies ensure that impacts to movement of native resident or migratory fish and wildlife species will be less than significant.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

Mitigation Measures BIO-1 and BIO-2

Level of Significance After Mitigation:

Less than significant.

E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

There are no existing local policies designed to protect biological resources, such as a tree preservation policy or ordinance. No impacts related to conflicts with local policies and programs designed to protect biological resources will occur.

Level of Significance Before Mitigation:

Less than significant.

Level of Significance After Mitigation:

No mitigation is necessary.

F. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

The Planning Area occurs within the CVMSHCP, which provides a strategy for protecting special status species and sensitive natural communities within the Planning Area and beyond. Potentially significant impacts could occur if future development guided by the policies of the proposed General Plan Update would result in harm to special status species or sensitive natural communities identified by the CVMSHCP, or if the proposed General Plan Update were to interfere with efforts to conserve them. Sensitive species could also be harmed or killed during construction activities or otherwise be impacted from increased urban lighting, increased traffic, increases in domestic pet predation, and increased use of OHVs. Harm or death to special status species and their habitat can result in substantial upset to the local and regional ecosystem due to the delicate balance and harsh conditions that desert creatures and plants endure. Compliance with proposed GPU policies and CVMSHCP guidelines will reduce impacts to proposed or adopted HCPs to a level of less than significant.

Level of Significance Before Mitigation:

Less than significant.

Level of Significance After Mitigation:

No mitigation is necessary

G. Would the project cause substantial adverse cumulative impacts with respect to biological resources?

Development with the Planning Area along with additional development in nearby areas may lead to impacts to biological resources. General Plan Update policies along with existing regulations would reduce the level of impact. Policy OS-1.5: Biological Resources Assessment requires a biological resources assessment for development proposal or infrastructure project located on undeveloped/ undisturbed land. The biological resource assessment will include a cumulative effects analysis developed as described under CEQA Guidelines §15130. It will analyze the cumulative effects of the Project's land use designations, policies and programs on the environment, including an assessment of all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. Additionally, the inclusion of Mitigation Measures BIO 1 – BIO 4 would reduce the impact to less than significant.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4

Level of Significance After Mitigation:

Less than significant

4.4.5 References

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4.5 – Cultural Resources

This section addresses impacts associated with the General Plan Update (GPU) to cultural and historic resources. Issues of interest are whether the Project will cause a substantial adverse change in an archaeological or historic resource or disturb human remains.

4.5.1 Environmental Setting

The physiology of the Planning Area is set within the northeastern portion of the Coachella Valley and is situated at the base of the Little San Bernardino Mountains. It is located on a gently sloping portion of the Colorado Desert and a number of drainages and washes run in a southerly direction towards the valley floor. Varied desert grass and shrubland habitats are found in the immediate vicinity of the Planning Area with dominant vegetation species including creosote bush, white bursage, mesquite, ocotillo, and fan palm. Known fauna in the region include desert bighorn sheep, desert kit fox, coyote, spotted skunk, black-tailed jackrabbit, ground squirrel, kangaroo rat, white footed mouse, eagles, hawks, owls, quail, white-winged dove, roadrunners, finches, warblers, orioles, and more. Special-status plant and animal species in the Planning Area include, but are not limited to, Coachella Valley fringed-toed lizard, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, Palm Springs pocket mouse, Crissal thrasher, Le Conte's thrasher, Coachella Valley giant sand-treader cricket, Coachella Valley Jerusalem cricket, Coachella valley milk-vetch, and little San Bernardino Mountains linanthus. All of these natural resources were utilized by the Cahuilla.

The Coachella Valley, including the Planning Area, has been the home to the Cahuilla Native Americans for several hundred years. The expansive traditional use area of the Cahuilla people extends over four million acres, encompasses all of the Coachella Valley, and includes many environmental life zones. Prior to the intrusion of non-Indian people, the Cahuilla utilized all of the life zones for food, gathering, hunting, and other cultural activities. Prior to approximately 1500 AD, ancient Lake Cahuilla was an important resource for indigenous peoples of the area. Lake Cahuilla was an extensive freshwater body encompassing approximately 3,410 square miles and rising 39 feet above sea level that provided both food and material resources.

The first written account of European contact with the Cahuilla was in the 1770s by Spaniards exploring a route to the Pacific Coast. Conflicts between the Spaniards and Native populations regarding land ownership, religious practices, and cultural practices soon strained the relationship between the two groups. More devastating was the introduction of foreign disease to the Cahuilla populations. Increasing settler populations in the Cahuilla territory brought a smallpox outbreak in the early 1860s killing much of the Cahuilla population, reducing their numbers from upwards of 10,000 to 2,500. External pressures and reduction of their territory led to tensions between the Cahuilla and American population. The Cahuilla villages were slowly abandoned as population sizes decreased and new technologies and material goods were incorporated into their traditional lifestyle. As settlement encroached the territory and the need to establish a railroad increased the federal government ceded every odd section of land along the route to the development of the Sothern Pacific Railroad. A checkerboard of sections through the Coachella Valley located along the railroad route where the Bradford Trail once crossed the land. The Cahuilla people continue to live in the Coachella Valley today, including the Agua Caliente Band of Cahuilla Indians located south of the Planning Area in and around the City of Palm Springs. Cahuilla cultural heritage, and material culture is found in all of the Planning Area in archaeological site, heritage site, springs, mountains, hills, streams and palm oasis. Numerous Cahuilla sites are located in and beyond the Planning Area. Two major villages are Two Bunch Palms village site and the Seven Palms village site. Both of these resources are known to be culturally significant resources of great importance to the Cahuilla people.

The first non-Native resident in the Planning Area was Hilda M. Gray who homesteaded a parcel of land, south of Two Bunch Palms. The Desert Lands Act in 1877 by the U.S. Congress opened vast arid and semi-arid areas of publicly owned land across the country to homesteading.

In 1913, homesteader Cabot Yerxa dug the first hot water well in the Planning Area and started construction on the Cabot's Old Pueblo Museum in 1941. The museum was Yerxa's home and was designed after a Hopi style Pueblo. Yerxa constructed the home from discarded lumber, construction materials, and used nails. After Yerxa's death in 1965, the Pueblo was saved from demolition by Cole Eyraud who purchased the property and donated it to the City. The City turned it into a museum.

In 1941, L.W. Coffee opened the City's first bath house at the southwest corner of Eighth Avenue and Palm Drive, utilizing the natural hot water aquifer. In the following 20 to 30 years, additional bath houses, spas, and resorts were developed and operated within the Planning Area.

4.5.2 Regulatory Framework

Federal

National Historic Preservation Act of 1966
Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings**.**

Section 106 of the Federal Guidelines
Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings.

National Register of Historic Place:
The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: It is associated with the lives of persons who are significant in our past.

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act of 1990
The NAGPRA of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation

State

California Register of Historical Resources
Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change (CA Public Resources Code)." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated

by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (Public Resources Code):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks (CHLs)

CHLs are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California)
- Associated with an individual or group having a profound influence on the history of California. A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Point or Points) designated after December 1997 and recommended by the State

Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991
Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001
Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill (SB) 18
California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993

of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

Assembly Bill (AB) 52
Specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to CEQA projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

Health and Safety Code, Sections 7050 and 7052
Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 622.5
Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Local

Desert Hot Springs General Plan
The Open Space, Natural, and Cultural Resources Element of the General Plan Update addresses aesthetic resources. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to scenic resources, visual character, and light and glare are addressed in the following elements: Land Use and Community Design; Mobility and Infrastructure; Open Space, Natural Resources, and Cultural Resources; and Health and Wellness. Several policies are identified in these Elements to maintain and enhance the visual character of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy OS-8.1: Historic Preservation.
- Policy OS-8.2: Local Historic Groups.
- Policy OS-8.3: Marketing.
- Policy OS-8.4: Cultural Preservation Balance.
- Policy OS-8.5: Archaeological Resources.
- Policy OS-8.6: Cultural Resources.
- Policy OS-8.7: Paleontological Resources.

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.5.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

C. Disturb any human remains, including those interred outside of dedicated cemeteries?

D. Would the project cause substantial adverse cumulative impacts with respect to cultural resources?

4.5.4 Environmental Impacts

This section describes potential impacts related to historic resources, archaeological resources, artifacts relating to Tribal Cultural Resources, and human remains, which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

A. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

The City's Historical Society has identified the Cabot's Old Indian Pueblo Museum, the B-Bar-Guest house and the Yerxa's Discovery Location (hot water well) as important historic resources located within the Planning Area. The Cabot Old Indian Pueblo Museum, completed in 1941, is listed on the National Register of Historic Places (Listing No.11000942) and as such, the museum is automatically eligible for listing on the California Register of Historic Resources (CRHR) (National Park Service). Further, the Museum is where, in 1913, Cabot Yerxa discovered the first hot water well and its location has been designated as a California Historic Point of Interest (Plaque No. 560) (Office of Historic Preservation). The B-Bar Guest house was built in 1937 and the California Resources Inventory System-Eastern Information Center (CHRIS-EIC) has determined the house to be eligible for listing in the California Register of Historic Resources (CRHR).

Historic resources are important to the knowledge of the past of California and region while forming a portion of the character of the City of Desert Hot Springs that creates a sense of place and identity. Effects that result in the loss of historic structures, properties, or districts can result in impacts that include the loss of cultural identity, loss of unique engineering, architectural, or artistic works, and loss of unique, irreplaceable components of the sense of place that forms a cultural environment.

Archival research conducted by the EIC in 2011, indicate that there could be as many as 155 historic buildings/structures located within the Planning Area that have the potential to be eligible as historic resources under CEQA, either as individual resources or as part of a potential historic district (CRHR). Since the Planning Area did not begin to fully develop until the 1960's, there could be additional buildings or structures not identified in the EIC study that are now age eligible (45 years or older), and as such their significance under CEQA has yet to be determined. Future development under the proposed GPU would not result in a substantial adverse change in the significance of a historical resource because they are currently protected under both existing and proposed policies. These policies include those from the proposed General Plan – Open Space, Natural, and Cultural Resource Element. This includes Policy OS-8.1 Historic Preservation; the policy encourages the assessment and preservation of public and private buildings of historical significance. Policy OS-8.2 Local Historical Groups which encourages the City to work with local groups.

- **Policy OS-8.1 Historic Preservation -** Continue to assess the historical significance of additional properties, and encourage the preservation of public and private buildings which are of local, historical, or cultural importance.
- **Policy OS-8.2 Local Historical Groups -** Support the work of local historic groups to identify, designate, and preserve local structures and sites of historic interest and importance.

As such, these policies, combined with State regulations, would ensure that the development anticipated, under the GPU, would not cause a substantial adverse change in the significance of a historical resource. Additionally, future proposed projects would be required to comply with environmental regulations under CEQA. As such, the impacts of the GPU on historical resources would be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Ground-disturbing activities associated with development carried out under the proposed GPU could result in damage to or destruction of archaeological (prehistoric and historic) resources or to artifacts relating to cultural resources. Archaeological materials associated with past occupation within the Planning Area are known to exist and have the potential to provide important cultural and scientific information regarding the prehistory and history of the City and the region. The GPU supports development that could include, but is not limited to, the new construction of residential housing tracts, commercial buildings, warehouses, road improvements, and supporting infrastructure, resulting in the disturbance of soils at depths not previously impacted by existing or past development. Additionally, much of the City and its sphere of influence has not been formally surveyed for archaeological (prehistoric, historic, and TCR) resources that could be lost during project construction.

The potential for uncovering significant resources within the Planning Area during earthmoving construction activities is unknown. Nevertheless, ground-disturbing activities associated with proposed development projects within the Planning Area, where excavation depths exceed those previously attained or in undeveloped parcels, have the potential to damage or destroy prehistoric or historic archaeological resources that may be present on the surface and below the surface.

Consequently, damage to or destruction to newly discovered surface or sub-surface cultural resources, could result in potentially significant impacts. However, existing regulations will require applicants to prepare a Phase I Cultural Resources Technical Report in accordance with the California Office of Historic Preservation: Archaeological Resources Management Report Guidelines, with the purpose to assess, avoid, and mitigate potential impacts to archeological resources and artifacts relating to Cultural Resources as set forth in CEQA Regulations. Additionally, GPU Policies OS-8.5 Archaeological Resources and OS-8.6 Cultural Resources help ensure that there would be no substantial change in the significance of archaeological resources. Policy OS-8.5 requires archaeological surveys during the developmental review process to determine if significant resources are present while Policy OS-8.6 requires the all development and redevelopment proposals consider cultural resources and may require cultural resource studies (including subsurface investigations).

- **OS-8.5 Archaeological Resources -** Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.
- **OS-8.6 Cultural Resources -** Review all development and redevelopment proposals for the possibility of cultural resources. This may include the need for individual cultural resource studies, including subsurface investigations.

As such, the impact would be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

C. Disturb any human remains, including those interred outside of dedicated cemeteries?

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 of the California Public Resources Code. The California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction, and established procedures to be implemented if Native American skeletal remains are discovered. Public Resources Code §5097.98 also addresses the disposition of Native American burials, protects such remains, and established the Native American Heritage Commission (NAHC) to resolve any related disputes.

Ground-disturbing activities associated with project implementation within the Planning Area could result in damage to or destruction of currently unknown human remains. Impacts would be less than significant with mitigation incorporated. Human burials outside of formal cemeteries often occur in prehistoric archeological contexts. Since, much of the City and its sphere influence has not been formally surveyed or investigated for cultural (prehistoric or historic) resources the potential exists for these resources to be present. Excavations during construction activities within the Planning Area would have the potential to disturb these resources, including Native American burials. The City will comply with Section 5097 of the California Public Resources Code (discussed in the previous paragraph) and incorporate GPU Polices OS-8.5 and OS-8.6 (discussed in Impact Discussion 4.5(b)). These policies require the consideration for cultural resources while an area is being developed and/or redeveloped. These policies may require cultural resource assessments, including subsurface evaluations, reducing the impact to less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

D. Would the project cause substantial adverse cumulative impacts with respect to cultural resources?

Potential impacts related to cultural resources are site specific and cannot be accurately assessed on a cumulative basis. Ground-disturbing activities associated with development carried out under the proposed GPU could result in damage to or destruction of archaeological (prehistoric and historic) resources or to artifacts relating to cultural resources. The proposed General Plan Update contains goals, policies, and actions (see Table 4.0-1 and Appendix C) that address potential impacts on cultural resources as specified by CEQA to incorporate both SB 18, and AB 52 consultations. As such, the Planning Area's contribution to cumulative impacts related to cultural resources is less than considerable and, therefore, less than cumulatively significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

4.5.5 References

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4.6 – Energy

This section addresses energy impacts associated with implementation of the Desert Hot Springs General Plan Update. Energy resources are closely tied to impacts discussed in the Air Quality and Greenhouse Gas (GHG) sections of this document, Sections 4.3 and 4.8, respectively. Many of the values presented herein reflect values derived from the air quality emissions modeling conducted for the Project. Refer to Appendix D for detailed air quality and GHG emissions estimates and information on energy usage (MIG, 2019).

4.6.1 Environmental Setting

Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (U.S. EIA), California is the most populous state in the United States (U.S.), representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources (U.S. EIA 2018).

Electricity

In 2018, almost half of California's net electricity generation was from renewable resources, including hydropower (U.S. EIA, 2019). The State has six designated wind resource areas that are specific zones containing many installed wind generation projects. The majority of the Planning Area is located within the San Gorgonio Wind Resource Area (WRA), as designated by the California Energy Commission (CEC) (CEC 2018a). In 2014, the San Gorgonio WRA generated approximately 1,657 gigawatt hours (GWh) of electricity; the third largest amount of any area, including areas outside of WRAs, in the state (CEC 2017).

In 2018 the California electric system used 281,120 GWh of electricity, nearly 71% of which (199,595 GWh) was produced in-state (CEC 2019a). Riverside County consumed 15,980 GWh of electricity, about 6% of the state's electricity consumption (CEC 2019a).

Southern California Edison (SCE) is the utility provider in Desert Hot Springs. In the 2018 fiscal year, SCE sold approximately 87,143 million kilowatt hours (kWh) of electricity (SCE 2019a); approximately 46% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 13%), wind energy (approximately 13%), and geothermal energy (approximately 8%) (SCE 2019b).

Based on the California Emissions Estimator Model (CalEEMod) emissions estimates prepared for the Project (see Section 4.3.1 and Appendix D), the existing development in the Planning Area is estimated to consume approximately 192,048,270 kWh of electricity per year. Based on a service population[1] of 53,732, this works out to approximately 3,574 kWh / service population, annually.

[1] Service population is defined as the sum of residents and employees in the Planning Area.

Natural Gas
California accounts for less than 1% of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (U.S. EIA 2019). In 2018, California consumed about 12,638 million therms of natural gas. Approximately 35% of natural gas was consumed by the residential sector. Riverside County consumed approximately 259 million therms of natural gas in the same year, accounting for approximately 2% of statewide consumption. The residential sector made up approximately 65% of county wide consumption (CEC 2019b).

The Southern California Gas Company (SoCalGas) provides natural gas service to the Planning Area. SoCalGas is the principal distributor of natural gas in Southern California and provides natural gas for residential, commercial, and industrial markets. The annual natural gas sale to all markets in 2018 was approximately 1.264 million kiloBritish Thermal Units (kBtu)[2] (CEC 2019c).

Based on the CalEEMod emissions estimates prepared for the project (see Section 4.3.1 and Appendix D), existing development in the Planning Area is estimated to consume approximately 706,691,106 kBtu per year. Based on a service population of 53,732, this works out to approximately 13,152 kBtu / service population, annually.

Transportation
California's transportation sector consumed 80.6 million Btu of energy per capita in 2017, which ranked 31st in the nation (U.S. EIA 2017). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board.

According to the Board of Equalization (BOE), statewide taxable sales figures indicate a total of 15,471 million gallons of gasoline and 3,074 million gallons of diesel fuel were sold in 2018 (CEC 2019d; CDFTA,2018). Although exact estimates are not available by County, retail fuel outlet survey data indicates Riverside County accounted for approximately 6.8% and 7.4% of total statewide gasoline and diesel sales, respectively, in 2018 (CEC 2018b).

Using default trip generation rates distances in CalEEMod, the existing land uses in the Planning Area are estimated to generate approximately 463,047,434 vehicle miles traveled (VMT) per year.

4.6.2 Regulatory Framework

Federal

Federal Energy Policy and Conservation Act
In 1975, Congress enacted the Federal Energy and Policy Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

[2] One therm is equal to 100,000 Btu, or 100 kBtu.

Energy Independence and Security Act of 2007
On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act also includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The United States Environmental Protection Agency (U.S. EPA) is responsible for developing and implementing regulations to ensure transportation fuel sold in the United State contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel produces, and other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one; and
- EISA required the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHG than the petroleum fuel it replaces (U.S. EPA 2015).

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

Federal Vehicle Standards
In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of carbon dioxide (CO_2) in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). This rule would modify the existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021–2026. SAFE standards are expected to uphold model year 2020 standards through 2026 (NHTSA 2018).

State

Title 24 Energy Standards

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in California. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CalGreen Code). The purpose of the CalGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CalGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CalGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to, exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to nonresidential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, will go into effect on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements; and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 Building Energy Efficiency Standards are approximately 53 percent more efficient than the 2016 Title 24 Energy Standards for residential development and approximately 30 percent more efficient for non-residential development.

Executive Order B-30-15
Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase the amount of renewable electricity provided state-wide to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)
In January 2009, California Senate Bill (SB) 375, known as the Sustainable Communities and Climate Protection Act, went into effect. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce GHG emissions and other air pollutants. SB 375 tasks the California Air Resources Board (CARB) to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were 8% by year 2020 and 13% by year 2035. In September 2010 and February 2011, the 8% and the 13% targets were adopted, respectively.

SCAG's Regional Council adopted an update to the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future (2012 RTP/SCS) on April 7, 2016, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. The 2016 RTP/SCS, however, remains the approved SCS for the SCAG MPO until such time as SCAG prepares an updated SCS.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The *2003 Integrated Energy Policy Report* recommended accelerating that goal to 20 percent by 2010, and the *2004 Energy Report Update* further recommended increasing the target to 33 percent by 2020. The state's *Energy Action Plan* also supported this goal. In 2006 under Senate Bill 107, California's 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least one percent each year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals, recognizing the intent of the legislature to attain the 20 percent by 2010 target.

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring "[a]ll retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed CARB, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020.

In October 2015, Governor Brown signed SB 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly owned utilities to procure "half of the state's electricity from renewable sources by 2030."

The State's RPS program was further strengthened by the passage of SB 100 in 2018. SB 100 revised the State's RPS Program to require retail sellers of electricity to serve 50% and 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2026 and 2030, respectively, and requires 100% of all electricity supplied come from renewable sources by 2045.

Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) is a major component of California's renewable energy planning efforts. The DRECP is focused on 22.5 million acres in the desert regions and adjacent lands of seven California counties, including Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego (U.S. BLM 2019). Figure 8 of the DRECP Land Use Plan Amendment (LUPA) identifies the Development Focus Areas (DFAs) and Variance Process Lands for renewable energy development (U.S. BLM 2016).[3]

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[3] Renewable energy-related activities are incentivized and streamlined in DFAs, and are allowed in Variance Process Lands.

Executive Order B-55-18
On September 10, 2018, Governor Brown signed Executive Order B-55-18, to achieve carbon neutrality by moving California to 100% clean energy by 2045. This Executive Order also includes specific measures to reduce GHG emissions via clean transportation, energy efficient buildings, directing cap-and-trade funds to disadvantaged communities, and better management of the state's forest land.

Low Carbon Fuel Standard Regulation
CARB initially approved the Low Carbon Fuel Standard (LCFS) regulation in 2009, identifying it as one of the nine discrete early action measures in the *2008 Scoping Plan* to reduce California's GHG emissions. The LCFS regulation defines a Carbon Intensity, or "CI," reduction target (or standard) for each year, which the rule refers to as the "compliance schedule." The LCFS regulation requires a reduction of at least 10 percent in the CI of California's transportation fuels by 2020 and maintains that target for all subsequent years.

CARB has begun the rulemaking process for strengthening the compliance target of the LCFS through the year 2030. For a new LCFS target, the preferred scenario in the *2017 Scoping Plan Update* identifies an 18 percent reduction in average transportation fuel carbon intensity, compared to a 2010 baseline, by 2030 as one of the primary measures for achieving the state's GHG 2030 target. Achieving the SB 32 reduction goals will require the use of a low carbon transportation fuels portfolio beyond the amount expected to result from the current compliance schedule (CARB, 2017).

Advanced Clean Cars Program
In January 2012, CARB approved the Advanced Clean Cars (ACC) Program (formerly known as Pavley II) for model years 2017-2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the Zero-Emission Vehicle (ZEV) regulation. The Program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-emission vehicles into a single package of standards. By 2025, new automobiles under California's Advanced Clean Car program will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

EO B-48-18, issued by Governor Brown in January 2018, establishes a target to have five million ZEVs on the road in California by 2030. This Executive Order is supported by the State's 2018 ZEV Action Plan Priorities Update, which expands upon the State's 2016 ZEV Action Plan. While the 2016 plan remains in effect, the 2018 update function as an addendum, highlighting the most important actions State agencies are taking in 2018 to implement the directives of Executive Order B-48-18.

Local

Desert Hot Springs General Plan
The Open Space and Conservation Element and the Mobility and Infrastructure Element of the General Plan Update address energy resources. Several policies are identified in these Elements to reduce energy use and increase energy efficiency in the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy MI-11.11: Reduce Energy
- Policy MI-11.1: Energy Efficiency
- Policy OS-4.1: Energy Conservation

- Policy OS-4.2: Education and Outreach
- Policy OS-4.3: Rooftop Solar Projects
- Policy OS-4.4: Solar Energy Systems
- Policy OS-4.5: Solar Farms
- Policy OS-4.7: Alternative Electricity Options
- Policy OS-4.9: Windmill Development
- Policy OS-6.1: Sustainable Construction
- Policy OS-6.2: Green Building

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

Desert Hot Springs Climate Action Plan

In July 2013, the City of Desert Hot Springs adopted a Climate Action Plan (CAP) for the development and implementation of policies and programs to reduce GHG emissions within the City (DHS 2013a). The CAP is based on the directives of the Assembly Bill (AB) 32 and Executive Order S-3-05. The CAP uses a GHG emission inventory from the Year 2010 to establish the City's baseline emissions for the purposes of assessing future GHG reduction goals and forecasting GHG emissions in the future. In the Year 2010, the CAP estimated the city's community-wide GHG emissions were approximately 100,654 metric tons of carbon dioxide equivalents ($MTCO_2e$). Based on this historical emissions profile, the CAP established its annual Year 2020 GHG emission reduction goal to be 64,047 $MTCO_2e$, which would require an approximately 48,769 $MTCO_2e$ decrease from its BAU forecasted scenario for the Year 2020. The CAP includes 80 specific measures to reduce the City's GHG emissions. These measures are grouped into the following seven spheres of daily life:

1. Where We Live (Live)
2. Where We Work (Work)
3. How We Build (Build)
4. How We Get Around (Mobility)
5. How We Govern (Govern)
6. Where We Visit and Play (Recreate)
7. How We Teach and Learn (Learn)

While the overarching goal of the CAP is to reduce GHG emissions pursuant to directives in AB 32 and Executive Order S-3-05, other desired objectives associated with the adoption of the CAP include:

- Increasing energy efficiency in local government operations and in community activities;
- Supporting City and community initiatives to increase health and wellness;
- Creating new jobs associated with smart energy management;

- Saving money now being spent for energy and keeping it in the City be establishing a revolving fund whereby funds derived from municipal energy savings will be available for municipal and community programs to further reduce GHG emissions.
- Maintaining or increasing the comfortable desert lifestyle of residents and visitors alike; and
- Bringing Coachella Valley Association of Governments' jurisdictions together for effective regional climate planning.

Desert Hot Springs Energy Action Plan
In July 2013, the City of Desert Hot Springs adopted an Energy Action Plan (EAP), which outlines the City's strategy to help reduce energy consumption, reduce operating costs, and increase energy awareness within the City (DHS 2013b). The EAP contains 60 energy efficiency measures that target improvements for the following municipal structures:

- Carl May Community Center,
- Fire Stations 36 and 37,
- Police Department,
- Public Works building,
- Senior Center,
- Lozano Community Center,
- Cabot Center/Boys and Girls Club, and
- City Hall.

The measures identified for the municipal facilities generally consist of upgrading/improving lighting (exterior and interior) and insulation; installing new thermostats; and replacing older appliances and heating, ventilation, and air conditioning (HVAC) units. The EAP goes on to identify goals for maintaining the municipal fleet's performance and efficiency, which would serve to reduce fuel use. The EAP also indicates the City's intent to purchase alternative fueled vehicles, as feasible. Furthermore, from a community program perspective, the EAP indicates the City would consider additional, green building measures not included in Title 24 as well as the expansion of electric vehicle (EV) and compressed natural gas (CNG) infrastructure.

4.6.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update (GPU) could result in a significant impact if it:

A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
C. Would the project cause substantial adverse cumulative impacts with respect to energy?

4.6.4 Environmental Impacts

A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Analysis of Impacts

Implementation of the Project would increase the demand for electricity and natural gas within the Planning Area and gasoline consumption in the region during construction and operation of new land use developments.

Electricity

Construction Use. Temporary electric power would be required at various construction sites throughout the Planning Area as growth occurs under the Project. Electricity would be consumed by lighting and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during construction activities. However, the electricity used for such activities would be temporary and would have a negligible contribution to the overall energy consumption in the Planning Area.

Operational Use. Development facilitated under the Project would require electricity for multiple uses, including, but not limited to: building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave), and other electronics (e.g., televisions).

As described in Section 4.6.1, CalEEMod was used to estimate project emissions from energy uses. Electricity generation was estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance between the 2013 and 2016 Title 24 Building Code efficiencies for 2019 and the 2019 Title 24 Building Code for GPU buildout in 2040. Table 4.6-1 summarizes changes in electricity consumption that would occur over the next approximately 20 years of growth envisioned by the Project.

Table 4.6-1
Estimated Operational Change in Electricity Consumption (2019 vs. 2040)

Metric	Electricity Consumption (kWh)		
	2019	2040	Change
Total Electricity Consumption	192,048,270	575,687,510	+200%
Service Population (SP)	53,732	156,933	+192%
Electricity Consumption Efficiency (kWh/yr/SP)	3,574	3,669	+3%
Source: MIG 2019 (see Appendix D).			

As shown in Table 4.6-1, electricity consumption in the Planning Area in 2040 is expected to increase by approximately 383,639,240 kWh as compared to 2019 conditions. On an efficiency basis, electricity consumption is estimated to increase, too, by approximately 3%. Although growth would be occurring within the Planning Area under the Project, new development and land use turn over would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated electricity consumption in new and/or retrofitted structures. Additional electricity reductions would be achieved through the implementation of Mitigation Measure GHG-1C, which requires the adoption of a Zero Net Energy (ZNE) ordinance. The adoption and implementation of a ZNE ordinance would require increased building efficiency and the installation of renewable energy infrastructure (e.g., photovoltaic (PV) systems and/or windmills) to offset the building/structure's energy consumption. Furthermore, electricity consumed by development in the City would continue to be subject to the cap-and-trade regulation. For these reasons, the electrical energy that would be consumed by the Project is not considered unnecessary, inefficient, or wasteful.

<u>Natural Gas</u>

Construction Use. Substantial natural gas consumption is not anticipated to occur during construction activities that would occur with Project implementation. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities associated with Project growth would not substantially contribute to overall energy consumption in the city, and would not be unnecessary, inefficiency, or wasteful.

Operational Use. Natural gas consumption in Project operations would be required for various purposes, such as building heating and cooling. CalEEMod was used to estimate natural gas consumption associated with growth in the city, as envisioned by the Project. Table 4-6.2 summarizes estimated changes in natural gas consumption over the next approximately 20 years of growth envisioned by the Project.

Table 4.6-2
Estimated Operational Change in Natural Gas Consumption (2019 vs. 2040)

Metric	Natural Gas Consumption (kBtu)		
	2019	2040	Change
Total Natural Gas Consumption	706,691,106	1,805,720,920	+156%
Service Population (SP)	53,732	156,933	+192%
Natural Gas Consumption Efficiency (kBtu/yr/SP)	13,152	11,506	-13%
Source: MIG 2019 (See Appendix D)			

Based on the demand calculations shown in Table 4.6-2, which assume the average energy efficiency of structures in the City would meet the 2019 Title 24 CalGreen efficiency requirements by 2040, natural gas consumption in the Planning Area in 2040 is expected to increase by approximately 1,099,029,814 Btu as compared to 2019 conditions. However, on an efficiency basis, natural gas consumption is estimated to decrease by approximately 13 percent.

Although growth would occur within the Planning Area over the next approximately 20 years, new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. For these reasons, natural gas consumption by proposed land uses in the GPU is not considered to be unnecessary, inefficient, or wasteful.

Diesel and Gasoline Fuel

Construction Use. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities as the City grows under the Project. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and Vehicle Miles Traveled (VMT) associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as the LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB's Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary at each location and required to conduct development activities, it would not be unnecessary, wasteful, or inefficient.

Operational Use. Vehicle fuel consumption associated with Project operation would occur over the next approximately 20 years and would primarily be attributable to people traveling to or from the City for work, shopping, school, or other reasons. The amount of diesel and gasoline vehicle fuel consumption in the City under existing 2019 and forecasted 2040 growth conditions is shown in Table 4.6-3, below.

Table 4.6-3
Estimated Vehicle Fuel Consumption Changes (2019 vs. 2040)

Metric	Vehicle Fuel Consumption (Gallons)		
	2019	2040	Change
Total Diesel Consumption	3,404,424	8,608,831	+5,204,407
Total Gasoline Consumption	18,585,252	42,922,736	+24,337,484
Total Petroleum Consumption	21,989,676	51,531,567	+29,541,891
Service Population	53,732	156,933	+192%
Petroleum Consumption Efficiency (gal/yr/SP)	409.2	328.4	-20%
Source: MIG 2019 (See Appendix D)			

As shown in Table 4.6-3, diesel and gasoline fuel consumption in 2040 with the Project is anticipated to be approximately 8,608,831 and 42,922,736 gallons, respectively. Compared to 2019, this represents approximately 5,204,407 more gallons of diesel fuel consumed, annually, and approximately 24,337,484 more gallons of gasoline fuel consumed, annually.[4] On a service population basis, overall petroleum consumption is expected to decrease by approximately 20 percent. Although VMT is anticipated to increase slightly over the next approximately 20 years under the implementation of the GPU, fuel consumption would generally decrease as vehicle fuel efficiency increases to meet state GHG reduction goals.

There are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support an accelerate the number of plug-in hybrids and ZEVs in California. In addition, per the requirements identified in SB 375, CARB adopted a regional goal for the SCAG or reducing per-capita GHG emissions from 2005 levels by 8% by 2020 and 19% by 2035 for light-duty passenger vehicles. As discussed in GHG analysis, Section 4.8.4, the City would be

[4] These estimates are based on average fuel economy in Riverside County (Salton Sea) during the 2040 calendar year.

required to implement Mitigation Measure GHG-1D, which would require the development of a Multimodal Mobility Plan. The Multimodal Mobility Plan would outline the City's strategy for decreasing VMT in the Planning Area and increasing the number of EVs on the roadways through enhanced EV infrastructure. As such, actual consumption in the City of Desert Hot Springs could be lower in 2040 than estimated in Table 4.6-3.

Vehicle fuel use on a service population basis in the Planning Area is generally anticipated to decrease over the next approximately 20 years due to land use decisions made by the City, the implementation of Mitigation Measure GHG-1D, and because of fuel efficiency standards enacted at the state-level. In addition, vehicle fuel consumption in the City would be a small fraction of statewide use. As such, petroleum consumption associated with implementation of the GPU would not be considered unnecessary, inefficient, or wasteful.

Level of Significance Before Mitigation

Less Than Significant.

Mitigation Measures

No mitigation is required.

B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Analysis of Impacts

The Project would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency.

The Title 24 Building Code contains energy efficiency standards for residential and non-residential buildings. These standards address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls and rooves, etc.) on energy consumption. The latest update to these standards, codified in the 2019 Title 24 Building Code, requires the installation of solar panels on new residential development under three stories. The City would enforce the 2019 Title 24 Building Code during design review and project approval processes. In addition, as mentioned under response A and Section 4.8.4, the City would be required to implement Mitigation Measure GHG-1B, which requires the City adopt a ZNE ordinance that would further decrease energy demand from new residential and non-residential development, and increase the amount of renewable (i.e., carbon-free) energy generated by those land uses. In doing so, the Project would support the overarching goal of the City's EAP, which is to increase energy efficiency in public and private land uses, and the City's CAP. Although the CAP's primary goal is to reduce GHG emissions, many of the measures outlined in the document have a co-benefit of increasing energy efficiency and reducing overall energy demand in the city.

The GPU would not conflict with the State's goal of improving fuel efficiency and reducing reliance on fossil fuels. As identified in Section 4.8.4, the City would implement Mitigation Measure GHG-1C, which requires the development of a Multimodal Mobility Plan. The Multimodal Mobility Plan would identify the City's strategy for reducing VMT in the Planning Area and increasing the number of EVs on the roadways. In doing so, the Multimodal Mobility Plan would reduce the quantity of petroleum consumed. Additional electricity may be consumed if more people utilize

EVs; however, a greater percentage of this electricity would be generated by carbon-free sources, since new development would be required to meet ZNE standards (Mitigation Measure GHG-1B) and all public and private electricity accounts would be enrolled in Desert Community Energy accounts (Mitigation Measure GHG-1A). As such, implementation of the GPU would not impede the implementation or goals of actions taken at the state level (e.g., SB 375, ACC Program, ZEV Action Plan); rather, the Project would support them by reducing reliance on fossil fuels and increasing the emphasis of utilizing and sourcing energy from renewable sources.

In addition, the Project would not conflict with the State's plans for the region regarding renewable energy generated from wind. Though the majority of the Planning Area is within the San Gorgonio WRA, it is not within a DRECP DFA or Variance Process Land designation for renewable energy development (DRECP 2016). Therefore, the proposed project would not conflict with the State's goals for wind renewable energy generation.

As discussed above, the Project would support the State's goals of decreasing energy consumption, increasing energy efficiency, and would not conflict with a state or local plan for renewable energy. This impact would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation is required.

C. Would the project cause substantial adverse cumulative impacts with respect to energy?

Analysis of Impacts

The analysis presented under responses A. and B. is cumulative in nature. As described in the analyses, the Project would not result in the unnecessary, inefficient, or wasteful use of energy resources nor would it conflict with or obstruct a state or local plan for increasing renewable energy or energy efficiency. Project implementation would not result in a substantial adverse cumulative impact with respect to energy.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation is required.

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List of Acronyms, Abbreviations, and Symbols

Acronym, Symbol, Abbreviation	Description
AB	Assembly Bill
ACC	Advanced Clean Cars
BOE	Board of Equalization
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalGreen Code	California Green Building Standards Code
CAP	Climate Action Plan
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CI	Carbon Intensity
CNG	Compressed Natural Gas
CO2	Carbon Dioxide
DFA	Development Focus Area
DRECP	Desert Renewable Energy Conservation Plan
EAP	Energy Action Plan
EISA	Energy Independence and Security Act
EV	Electric Vehicle
GHG	Greenhouse Gas
GPU	General Plan Update
GWh	Gigawatt Hours
IAQ	Indoor Air Quality
kBtu	kiloBritish Thermal Unit
kWh	Kilowatt Hours
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
LUPA	Land Use Plan Amendment
MPO	Metropolitan Planning Organization
MT	Metric Tons
MTCO2e	Metric Tons of Carbon Dioxide Equivalents
NHTSA	National Highway Traffic Safety Administration
PV	Photovoltaic
RFS	Renewable Fuel Standards
RFS1	Original RFS Program
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SoCalGas	Southern California Gas

Acronym, Symbol, Abbreviation	Description
SP	Service Population
U.S.	United States
U.S. EIA	U.S. Energy Information Administration
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
WRA	Wind Resource Area
ZEV	Zero-Emissions Vehicle
ZNE	Zero Net Energy

4.7 – Geology and Soils

The following section discusses potential geology and soils impacts associated with implementation of the General Plan Update (GPU). This section includes an evaluation of potential geology and seismic impacts, including seismic shaking, liquefaction, and landslides, and identifies mitigation measures, if required.

4.7.1 Environmental Setting

Topography
The Planning Area is generally flat and gently sloping from northwest to southeast. The northwest corner of the Planning Area has an elevation of approximately 2,400 feet above mean sea level (AMSL) and descends to approximately 900 AMSL at the southeast corner. Isolated areas within or near the Planning Area are characterized by steeper terrain. The San Bernardino and Little San Bernardino Mountains bound the City on the west and north while the San Jacinto and Santa Rosa Mountains lie further to the southwest and south.

Geology
The Planning Area is dominated by alluvial sediments. Exhibit 4.7-1 (Geologic Units) identifies the geologic units in the Planning Area. These geologic units are described in Table 4.7-1.

Table 4.7-1
Geologic Units within the Planning Area

Symbol	Age	Description
Q	Pleistocene-Holocene	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi- consolidated
Qs	Pleistocene-Holocene	Extensive marine and nonmarine sand deposits, generally near the coast or desert playas
Qoa	Pleistocene	Older allulvium, lake, playa, and terrace deposits
Mc	Miocene	Sandstone, shale, conglomerate, and fanglomerate; moderately to well consolidated.
QPc	Pliocene-Pleistocene	Pliocene and/or Pleistocene sandstone, shale, and gravel deposits; mostly loosely consolidated
pCc	pre-Cambrian	Complex of Precambrian igneous and metamorphic rocks. Mostly gneiss and schist intruded by igneous rocks; may be Mesozoic in part.
Pc	pre-Cambrian	Conglomerate, shale, sandstone, limestone, dolomite, marble, gneiss, hornfels, and quartzite; may be Paleozoic in part.
m	pre-Cenozoic	Undivided pre-Cenozoic metasedimentary and metavolcanic rocks of great variety. Mostly slate, quartzite, hornfels, chert, phyllite, mylonite, schist, gneiss, and minor marble.
gr-m	Mesozoic	Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite.
grMz	Mesozoic	Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite.
Source: California Department of Conservation Geologic Map of California, Interactive Web Maps, 2019.		

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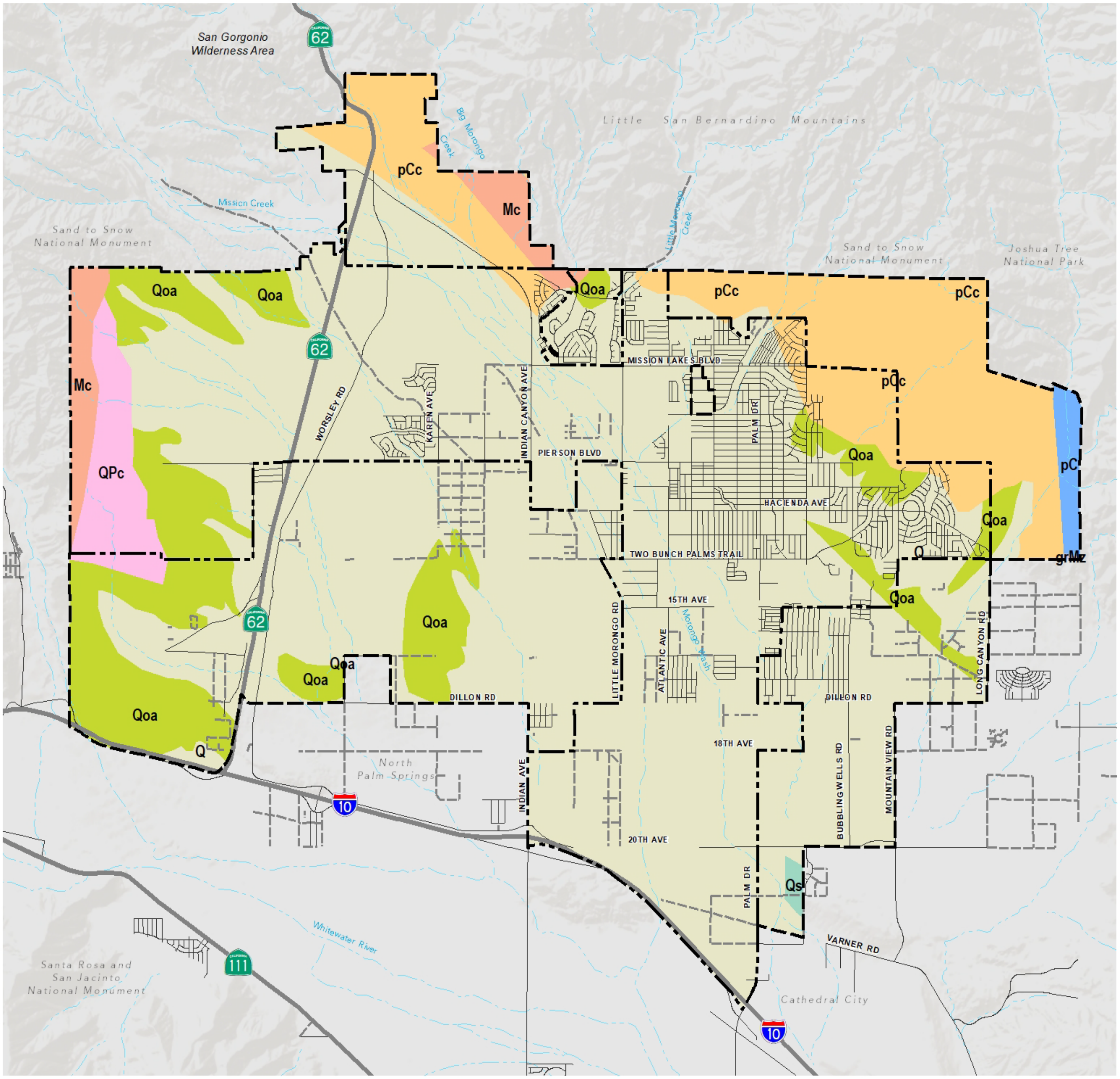

Geologic Units

Mc: Nonmarine (continental) sedimentary rocks

Q: Marine and nonmarine (continental) sedimentary rocks

QPc: Nonmarine (continental) sedimentary rocks

Qoa: Marine and nonmarine (continental) sedimentary rocks

Qs: Marine and nonmarine (continental) sedimentary rocks

grMz: Plutonic rocks

pC: Marine sedimentary and metasedimentary rocks

pCc: Mixed rocks (pre-Cambrian)

Source: California Department of Conservation, California Geological Survey, Geologic Map of California, 2000.

Date: July 2019.

Base Map Features

City Boundary

Sphere of Influence

Water Courses

Exhibit 4.7-1: Geologic Units

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Soils
Soil information and characteristics within the Planning Area are provided by the Web Soil Survey, prepared by the United States Department of Agriculture, Natural Resources Conservation Service. The soils survey provides descriptions, locations, properties, and limitations affecting a variety of land uses. The general location of soils within the Planning Area are shown in Exhibit 4.7-2 (Soils Map). While the NRCS soils survey is not a replacement for a project-specific geotechnical evaluation, it does provide general soils information.

Corrosion
Corrosion to uncoated steel and concrete is based on a number of soil properties including drainage class, soil texture, pH and other chemical components. Corrosion of steel results in weakening of the structure, thereby impacting underground utilities (i.e. water pipes or electrical conduits). Concrete corrosion impacts foundations and other surface concrete applications. Soils within the Planning Area range in corrosivity from low to high on steel and low to medium on concrete. Table 4.7-2 (Risk of Corrosion) summarizes potential impacts on subsurface utilities and foundations.

Table 4.7-2
Risk of Corrosion

Soil	Steel	Concrete	Soil	Steel	Concrete
CcC	Moderate	Low	GP	--	--
CdC	Moderate	Moderate	Ip	Moderate	Moderate
CdE	Moderate	Moderate	Ir	Moderate	Moderate
ChC	Moderate	Moderate	LR	Low	Low
CkB	Moderate	Moderate	MaB	Moderate	Low
CnC	Moderate	Moderate	MaD	Moderate	Low
CnE	Moderate	Moderate	RA	--	--
CoD	Moderate	Moderate	RO	--	--
CpA	Moderate	Moderate	RT	--	--
CrA	High	Moderate	W	--	--
Source: United States Department of Agriculture, Natural Resource Conservation Service, Web Soil Survey, 2019.					

Erosion
Erosion is the removal of soil and other geologic fragments from the landscape. Erosion can result in a variety of hazards and issues including visibility problems and damage to architectural coatings and building materials. Erosion can also deposit sediments downstream, changing hydrologic flows and the functions of water bodies and habitats.

Desert Hot Springs, like the majority of the areas in the Coachella Valley, is subject to strong winds from the west due to the funneling effect of the San Gorgonio Pass and from the east during Santa Ana Wind events. This can result in numerous impacts due to wind-driven soil erosion including abrasion and damage to buildings and motor vehicles, filling of drainageways and yards, and limitation of visibility.

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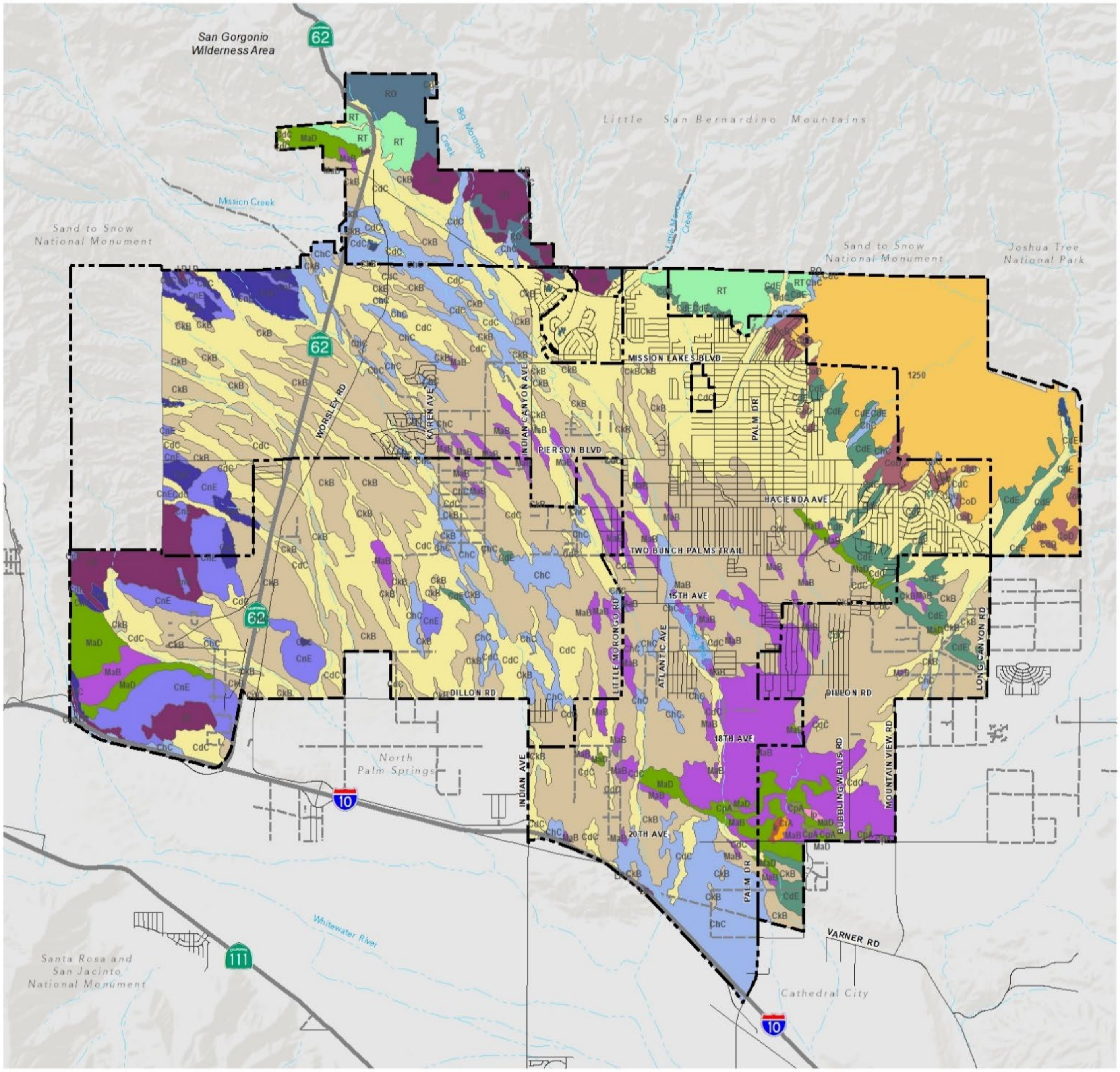

0 0.5 1 2 Miles

Soils Type

- 1250
- CcC
- CdC
- CdE
- ChC
- CkB
- CnC
- CnE
- CoD
- CpA
- CrA
- GP
- Ip
- Ir
- LR
- MaB
- MaD
- RO
- RT
- W: Water

Source: Digital General Soil Map of U.S.
U.S. Department of Agriculture,
Natural Resources Conservation Service, 2016.

Date: July 2019.

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

Exhibit 4.7-2: Soils Map

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Septic Tanks
The geology and soils of a site are important in the operation of septic tanks and can limit use of septic tanks if soil conditions are not appropriate. Limitations include poor seepage and permeability which inhibits the ability of the drainfield to filter pollutants. The Web Soil Survey, prepared by the United States Department of Agriculture, Natural Resources Conservation Service, rates soil types for septic use. A "not limited" rating indicates that the soil has features that are very favorable for septic use, and good performance and very low maintenance can be expected. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures; poor performance and high maintenance can be expected. Septic tank absorption field rating based on soils type are summarized in Table 4.7-3 (Septic Tank Limitations). The majority of soils in the Planning Area are characterized by limitations on the use of septic tanks

Table 4.7-3
Septic Tank Limitations

Soil	Rating	Soil	Rating
CcC	Very Limited	GP	Very Limited
CdC	Very Limited	Ip	Somewhat Limited
CdE	Very Limited	Ir	Somewhat Limited
ChC	Very Limited	LR	Very Limited
CkB	Very Limited	MaB	Very Limited
CnC	Very Limited	MaD	Very Limited
CnE	Very Limited	RA	Very Limited
CoD	Very Limited	RO	Not Rated
CpA	Not Limited	RT	Not Rated
CrA	Somewhat Limited	W	Not Rated
Source: United States Department of Agriculture, Natural Resource Conservation Service, Web Soil Survey, 2019.			

*Note: A "not limited" rating indicates that the soil has features that are very favorable for septic use. A "somewhat limited" rating indicates that the soil has features that are moderately favorable; limitations can be overcome or minimized by special planning, design, or installation and fair performance and moderate maintenance can be expected. A "very limited" rating indicates that the soil has one or more features that are unfavorable for the specified use.

Seismic Hazards
Desert Hot Springs is located within a region with several active faults and is subject to seismic activity.

Faulting and Fault Hazards
Southern California is a seismically active region. The most prominent and active fault systems in California—the San Andreas fault system—cuts across Desert Hot Springs northwest to southeast. Localized faults include the Mission Creek, Banning, and Devers Hill faults. The Banning fault crosses along the southern portion of the City, and the Mission Creek fault extends in a southeasterly direction, including near the downtown area. The Devers Hill fault runs generally in a northeast to southwest direction, extending from east of Karen Avenue and north of the extension of Two Bunch Palms Trail down to the extension of 15th Avenue and the extension of Melissa Lane. The Banning Fault forms the southern margin of the Indio Hills. The Mission Creek fault forms the northern margin, creating a small valley which Dillon Road traverses. Exhibit 4.7-3 (Regional Faults) identifies the location of surrounding faults.

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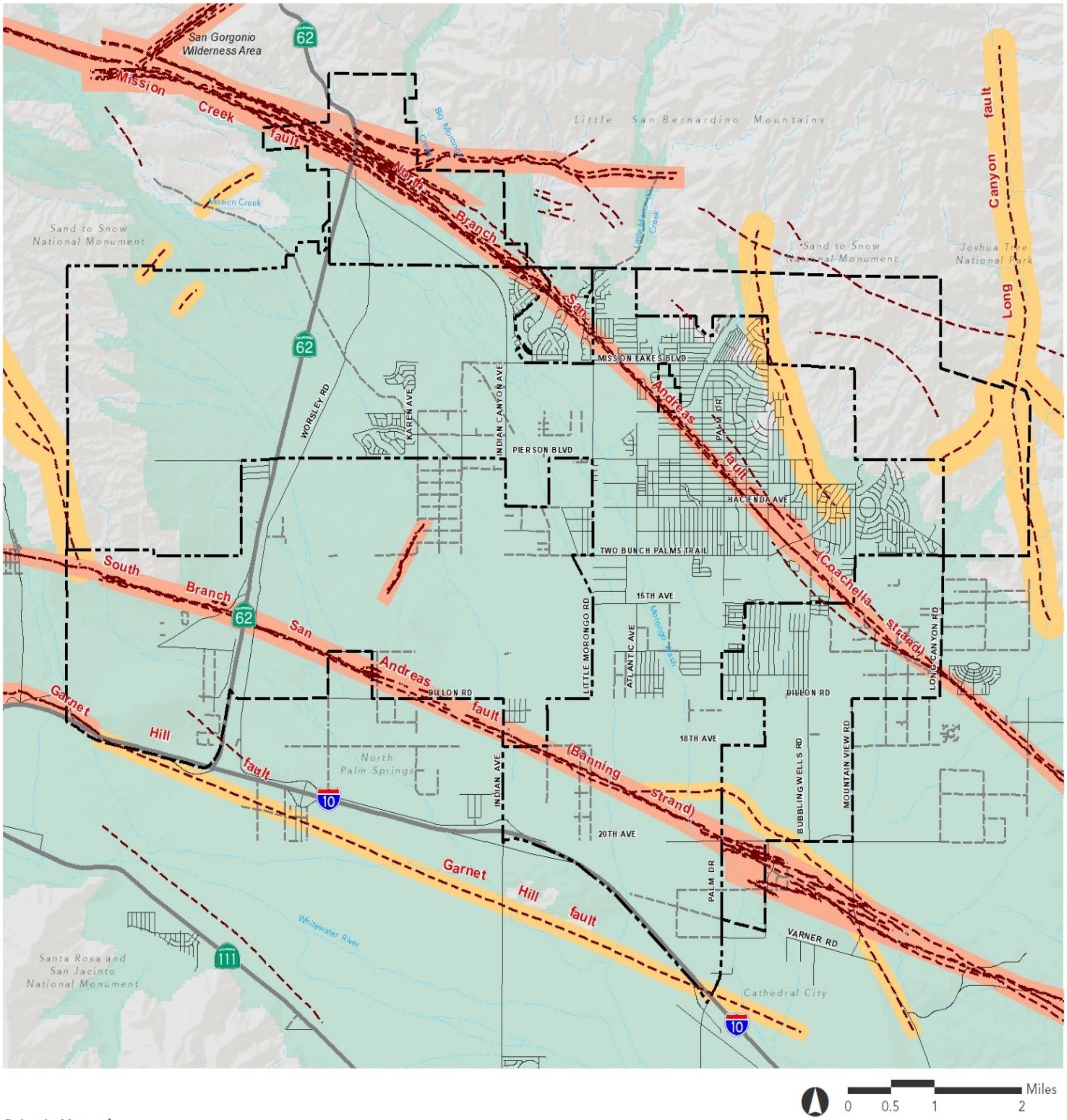

Seismic Hazards

- Faults
- Liquefaction

Fault Zones

- Riverside County Designated Fault Zone
- Alquist Priolo Fault Zone

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

Source: California Department of Conservation, California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Evaluation and Zoning Program, 2018; and Riverside County.

Date: August 2019.

Exhibit 4.7-3: Seismic Hazards

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A fourth fault, the Blind Canyon Fault, is located outside of the City and the Sphere of Influence (SOI). However, due to the proximity of the fault, the fault should be taken into account when considering any proposed developments near to it. As on 2019, the fault had yet to have a fault zone mapped by the California Division of Mines and Geology.

Ground Shaking
The entire Planning Area lies within a seismically active region of Southern California and is subject to strong ground shaking from earthquakes generated along one or more of several regional faults. Strong ground shaking is considered a potential hazard due to its widespread impact and the potential to damage structures and critical infrastructure. Due to the Planning Area's location within a seismically-active region, proximity to known faults and blind fault thrusts, the Planning Area will experience earthquake-related ground shaking in the future.

Liquefaction
Liquefaction occurs in areas where relatively loose, sandy soil exists with high groundwater levels. Earthquakes cause water pressure to increase in loose sediments, leading to the sediments losing strength and behaving like a liquid. A variety of ground deformation can occur as a result of liquefaction, leading to structural and infrastructure damage due to movement of the ground surface. Portions of the Planning Area underlain by soils susceptible to liquefaction are identified in Exhibit 4.7-3.

Settlement
Differential seismic settlement occurs when seismic ground shaking from an earthquake causes one type of soil or rock to settle more than another type. Settling can damage structures and infrastructure by unevenly depressing soils underlying building foundations.

Subsidence
Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials. Over drafting of ground water, drainage of organic soils, underground mining, natural compaction, and thawing of permafrost can cause subsidence. Similar to collapse and settlement, subsidence causes large areas of land to sink, thereby potentially damaging foundations, walls, and floors. The Riverside County General Plan identifies areas within the Planning Area as susceptible to subsidence.

Expansion
Expansive soil and rock are characterized by clayey material that shrinks and swells as it dries and becomes wet. This swelling and shrinking places stress on buildings and infrastructure. Problems associated with expansive soils include foundation damage, jammed doors and windows, ruptured pipelines, and heaving and cracking of sidewalks and roads.

Landslides
Landslides pose serious risk to human life and property, particularly when considering fast-moving and unexpected debris flows. Landslides may result from a number of factors, but earthquake-induced landslides can be the most dangerous due to the lack of warning and severity of the action. Landslides typically occur in areas with steep, unstable slopes. This hazard is only found along the perimeter of the City on properties abutting the surrounding hills and mountains.

Paleontological Resources
Results of an on-line paleontological resources record search through the University of California Museum of Paleontology (UCMP) database indicate that there are no known vertebrate fossil localities that have been previously identified within the Planning Area. Additionally, the UCMP

database also failed to identify fossil localities that were discovered within the same sedimentary deposits at depths that extend into the Planning Area. An examination of the Geological Map of California indicate that the Planning Area consists of surface sediments composed of Younger Quaternary alluvial fan deposits that are underlain by Quaternary Non-marine Terrance deposits. These Younger Quaternary deposits typically do not contain significant vertebrate fossils at shallow depths (University of California Museum of Paleontology. 2019). Finally, a review of the County of Riverside Paleontological Sensitivity Map indicate that the Planning Area has a low potential for containing significant paleontological resources based on previous mapping (County of Riverside 2015).

4.7.2 Regulatory Framework

Federal, state, and local regulations related to geology, soils and paleontology are described below.

Federal

National Earthquake Hazards Reduction Program. Established by Congress in 1977, the National Earthquake Hazards Reduction Program (NEHRP) leads the federal government's efforts to reduce the fatalities, injuries, and property losses caused by earthquakes. The four basic NEHRP goals are:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems.
- Improve earthquake hazards identification and risk assessment methods, and their use.
- Improve the understanding of earthquakes and their effects.

In its initial NEHRP authorization, and in subsequent reauthorizations, Congress has recognized that several key federal agencies can contribute to earthquake mitigation efforts.

Federal Antiquities Act of 1906. Protects paleontological resources on federal lands under Subsection 8.16.2.

State

Alquist-Priolo Earthquake Fault Zoning Act. The Alquist-Priolo Special Studies Zones Act was signed into law in 1972 (in 1994 it was renamed the Alquist Priolo Earthquake Fault Zoning Act.) The primary purpose of the Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State active faults, and 200 to 300 feet from well-defined minor faults. The act dictates that cities and Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The boundary of an "Earthquake Fault Zone" is generally about 500 feet from major counties withhold development permits for sites within and Earthquake Fault Zone until geologic investigations demonstrate that the sites are not threatened by surface displacements from future faulting.

Seismic Hazard Mapping Act. The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. In 1990 the State passed the Seismic Hazards Mapping Act (SHMA), which addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the Act. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to liquefaction, earthquake-induced landslides and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones delineated by the CGS are referred to as “zones of required investigation.” Site-specific geological hazard investigations are required by the SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act. The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas.

California Building Code. The state regulations protecting structures from seismic hazards are contained in the California Code of Regulations, Title 24 (the California Building Code (CBC)), which is updated on a triennial basis. These regulations apply to public and private buildings in the State. Provisions of the CBC address (among other topics) fire safety, access for disabled persons, and seismic-resistant construction design.

California Public Resources Code Chapter 1.7, Section 5097.5 (Stats. 1965, c. 1136, p. 2792). Defines any unauthorized disturbance or removal of a fossil site or fossil remains on public land as a misdemeanor and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources under Subsection 8.16.2.2

Local

South Coast Air Quality Management District Rules. Rule 403 requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust. Rule 403.1 is a supplemental rule to Rule 403 and is applicable to man-made sources of fugitive dust in Coachella Valley. The purpose of this rule is to reduce fugitive dust and resulting PM_{10} emissions from man-made sources in the Coachella Valley. Rule 403.1 requires a Fugitive Dust Control Plan approved by South Coast AQMD or an authorized local government agency prior to initiating any construction/earth-moving activity. These requirements are only applicable to construction projects with 5,000 or more square feet of surface area disturbance.

County of Riverside General Plan – Safety Element. The Safety Element represents an extensive effort to reduce the impacts of future disasters in Riverside County. The element includes several goals and policies related to natural disaster situations.

As described in the County of Riverside General Plan, the State Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting. The main purpose of the A-P Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Alquist-Priolo Earthquake Fault Zones have been designated by the California Division of Mines and Geology for the Elsinore, San Jacinto, and San Andreas fault zones in Riverside County. Within the rapidly growing county, State A-P mapping has not kept pace with development. The County of Riverside has zoned fault systems and required similar special studies prior to development. These are referred to as County Earthquake Fault Study

Zones. They generally represent zones that have been identified from groundwater studies, and should be viewed as doubtful. However, until solid field evidence is generated to prove or disprove their existence, they should continue to be considered a hazard.

Desert Hot Springs Municipal Code. Several section of the Desert Hot Springs Municipal Code, including Title 15, Buildings and Construction, and Title 16, Subdivision, contains provisions related to development, including provisions for grading, grading restrictions, and erosion control measures.

Desert Hot Springs General Plan. The Safety and Noise Element of the GPU addresses natural risks to health and property, including seismic related hazards. The Open Space Element addresses paleontological resources. Both of these elements include goals and policies related to soils, geology, and paleontological resources, which are listed below:

- Policy OS-8.7: Paleontological Resources
- Policy SN-6.1: Alquist-Priolo Act
- Policy SN-6.2: Seismic Review
- Policy SN-6.3: Geotechnical Studies
- Policy SN-6.4: Fault Zones
- Policy SN-6.5: Utilities and Vital Service Providers
- Policy SN-6.6: Water District Consultation
- Policy SN-6.7: Wind-Driven Erosion
- Policy SN-6.8: Local Hazard Mitigation Plan
- Policy SN-6.9: CERT
- Policy MI-11.16: Septic Tank Removal

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.7.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

   ii) Strong seismic ground shaking?

   iii) Seismic-related ground failure, including liquefaction?

   iv) Landslides?

B. Result in substantial soil erosion or the loss of topsoil?

C. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

D. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?

E. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

G. Would the project cause substantial adverse cumulative impacts with respect to Geology and Soils?

4.7.4 Environmental Impacts

A. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?

i) Rupture of a known earthquake fault. Alquist-Priolo earthquake fault zones are areas surrounding surface traces of active faults in California. As shown in Exhibit 4.7-3, and described above, there are several known faults and Alquist-Priolo earthquake fault zones within the Desert Hot Springs; these faults are located within existing developed area that includes residential, commercial, and other types of urban land uses. Fault rupture can result in serious to catastrophic damage to structures if the rupture occurs under the structure and causes injury or death to any occupants inside.

The GPU includes several policies related to seismic hazards. One of these policies includes Policy SN-6.1: Alquist-Priolo Act which would "Implement the Alquist-Priolo Act and Public Resources Code Section 2621 to prohibit new structures within earthquake fault zones." Policy SN-6.1 would ensure that the provisions of the Alquist-Priolo Earthquake Fault Zoning Act are applied to all future development within a fault hazard zone. This policy would substantially reduce the potential for structural damage due to fault rupture. Additionally, the GPU includes Policy SN-6.4: Fault Zones which states "Accept the Riverside County designated fault zone for the Blind Canyon Fault (unless subsequent data indicate otherwise), and apply standard measures as would be required of any California Division of Mines and Geology designated fault zone." Prohibiting new development, including development associated with the GPU, within earthquake fault zones would reduce the potential impact related to rupture of a known earthquake fault. Implementation of Policies SN-6.1 and SN-6.4 would ensure this impact would be less than significant.

ii) Strong seismic ground shaking. As the Planning Area is within a seismically active region, future development would experience seismic shaking. Development within the City must adhere to the California Building Code (CBC), which includes requirements to design structures in accordance with the appropriate ground–shaking design parameters set forth in the code.

Furthermore, the proposed GPU includes policies and programs designed to minimize and reduce impacts associated with strong ground shaking including:

- Policy SN-6.3: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction to or other forms of ground failure. If found to have the potential for liquefaction, further analysis may be necessary to determine level of hazard risk and propose appropriate mitigation measures.
- Policy SN-6.4: Fault Zones. Accept the Riverside County designated fault zone for the Blind Canyon Fault (unless subsequent data indicate otherwise), and apply standard measures as would be required of any California Division of Mines and Geology designated fault zone.
- Policy SN-6.5: Utilities and Vital Service Providers. Consult with utilities and vital service providers to confirm the design of existing and proposed infrastructure to withstand substantial seismic events, and to strengthen or relocate facilities to safeguard water, electricity, natural gas, and other transmission and distribution systems.

Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. Impacts due to strong ground shaking will be less than significant with adherence to the CBC and the policies of the proposed GPU.

iii) Liquefaction. Figure 4.7-3 shows areas within the Planning Area that are susceptible to liquefaction. The GPU includes the following policies related to liquefaction:

- Policy SN-6.3: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction to or other forms of ground failure. If found to have the potential for liquefaction, further analysis may be necessary to determine level of hazard risk and propose appropriate mitigation measures.

Development associated with implementation of the GPU could have the potential to be located within areas susceptible to liquefaction. However, if analysis of a specific site determines liquefaction conditions may be present, appropriate measures identified in the CBC, including specific provisions for seismic design of structures, would be required. With implementation of existing policies and standards, and adherence to policies included in the GPU, impacts associated with liquefaction or other ground failure would be less than significant.

iv) Landslides. Landslides typically occur in areas with steep, unstable slopes. This hazard is found along the perimeter of the City on properties abutting the surrounding hills and mountains. The following policy would be applicable to potential development located on unstable slopes:

- Policy SN-6.3: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction or other forms of ground failure. If found to have the potential for liquefaction, further analysis may be necessary to determine level of hazard risk and propose appropriate mitigation measures.

Additionally, implementation of the CBC and City requirements and policies would assure that appropriate design measures are incorporated where necessary. Implementation of these existing regulations and policies would reduce potential landslide impacts to a less-than-significant level.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

No mitigation is required.

B. Result in substantial soil erosion or the loss of topsoil?

Wind-driven erosion can occur where there are flat, barren surfaces in areas that experience high-winds. This is particularly true in sand and dune formations that lack vegetation to stabilize the soil. Future development within the Planning Area would be subject to South Coast Air Quality Management District Rules (SCAQMD) Rules 403 and 403.1, as well as the erosion control requirements of the City of Desert Hot Springs. Additionally the GPU includes the following policy addressing erosion:

- Policy SN-6.7: Wind-Driver Erosion. Continue to implement control measures to prevent wind-driven and water-driven erosion from construction activities and vacant parcels.

Similar to wind erosion, water erosion is of concern during construction activities. Disturbing soil during grading and other earthmoving activities makes it more susceptible to erosion due to runoff. Future development would be subject to the National Pollutant Discharge Elimination System (NPDES) erosion control requirements. Required erosion control Best Management Practices (BMPs) would ensure that measures are implemented at project sites to prevent or minimize erosion due to rain, ensuring that downstream water bodies are protected from sedimentation. Common BMPs may include installation of sandbags and silt fencing around the perimeter of a project site to prevent sediments from being washed off the property during rain.

Short-term erosion effects during the construction phase of development associated with the future development would be prevented through required implementation of a storm water pollution prevention plan (SWPPP) and through compliance with the NPDES program and the incorporation of best management practices BMPs intended to reduce soil erosion. Soil erosion impacts would be less than significant with implementation of existing regulations.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

No Mitigation Required.

C. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Please see Section 4.7.4(A) for a discussion of liquefaction and landslide hazards.

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Lateral spreading typically damages pipelines, utilities, bridges, and structures.

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials. Over drafting of ground water, drainage of organic soils, underground mining, natural compaction, and thawing of permafrost can cause subsidence. Similar to collapse and settlement, subsidence causes large areas of land to sink, thereby potentially damaging foundations, walls, and floors. Subsidence could also impact the Planning Area if groundwater levels drop in the future (please see Section 4.10, Hydrology and Water Quality, for a discussion of groundwater). Soils in some areas are also subject to collapse if oversaturated. These forms of ground failure could potentially result in significant impacts to future development.

The proposed GPU includes policies to reduce the impacts to future development related to ground failure:

- Policy SN-6.2: Seismic Review. Review and determine the adequacy of geotechnical and fault hazard studies prepared within the City by a County Geologist, the State Geologist, or a contract geological engineer.
- Policy SN-6.3: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction to or other forms of ground failure. If found to have the potential for liquefaction, further analysis may be necessary to determine level of hazard risk and propose appropriate mitigation measures.
- Policy SN-6.5: Utilities and Vital Service Providers. Consult with utilities and vital service providers to confirm the design of existing and proposed infrastructure to withstand substantial seismic events, and to strengthen or relocate facilities to safeguard water, electricity, natural gas, and other transmission and distribution systems.
- Policy SN-6.6: Water District Consultation. Consult with the Mission Springs Water District and the Coachella Valley Water District in their efforts to recharge groundwater basins underlying the City in order to prevent subsidence and associated damage to existing and future development.

Site specific geotechnical engineering and soils reports for future development would identify specific measures to address potential unstable soils. Implementation of the policies within the GPU, as well as adherence to the CBC requirements, would reduce this potential impact.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

None Required.

D. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?

The Planning Area is over 59 square miles, and site specific soil conditions throughout it may vary. Structural damage of buildings or utilities may occur if the potentially expansive and corrosive soils are not considered in the design and construction of development. GPU Policy SN-6.3 requires a geotechnical study for development in areas susceptible to ground failure. The CBC requires special design considerations for foundations of structures built on soils with expansion indices greater than 20. Presence of such soils, and identification of measures to eliminate this constraint such as removal and replacement with suitable engineered materials, would be determined through site-specific geotechnical evaluations. Compliance with existing regulations and policies, including CBC requirements, would limit hazards related to expansive soil to less than significant.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

None Required.

E. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

In 2019, roughly half of households in the City relied upon septic systems. Septic systems have the potential to adversely impact groundwater quality. Two assessment districts (AD11 and AD12) fund the construction of wastewater collection and treatment facilities to abate the threat septic systems pose to groundwater. To accommodate the type and scale of development planned in the City, substantial expansion of wastewater treatment facilities would be required. Continued efforts to expand sewer facilities would reduce and ideally eliminate the adverse impact of septic systems.

As shown in Table 4.7-3 (Septic Tank Limitations), many of the soils within the Planning Area include some sort of limitations for the installation of septic tanks in future development. Future installation of septic tanks could result in potentially significant impacts to human health and the environment if soils cause sewage to surface, contaminate groundwater resources, or backflow into structures.

The GPU includes the following policy related to septic systems:

- Policy MI-11.16: Septic Tank Removal. Encourage removal of existing septic tanks and transition to sewer services.

Where development cannot connect to a wastewater system, projects may need to use a septic system. In the instances where septic systems are proposed, all provisions of the California Building Code, California Plumbing Code, and City requirements would be applicable. These provisions include onsite testing to confirm soil conditions are adequate for the operation of a septic system. Compliance of all applicable existing codes and ordinance would ensure that this potential impact would be less than significant.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

None required.

F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Ground-disturbing activities associated with development within the Planning Area could result in damage to or destruction to paleontological resources or to unique geologic features. A paleontological literature review failed to identify paleontological resources or unique geological features existing within the Planning Area. The GPU supports development that could include but is not limited to the new construction of residential housing tracts, commercial buildings and warehouses, road improvements, and supporting infrastructure, resulting in the disturbance of soils at depths not previously disturbed by existing or past development. Additionally, much of the City and its SOI has not been formally surveyed for paleontological resources or unique geological features that could be lost during project construction. Paleontological resources may be present in fossil-bearing soils and rock formations below the ground surface. Ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Failure to properly evaluate, assess, survey, and if necessary, monitor proposed development sites could result in significant impacts to paleontological resources or unique geological features.

Level of Significance Before Mitigation:

Significan*t*

Mitigation Measures:

MM-GEO-1: In the event that paleontological resources or unique geological features are discovered during construction related activities, a qualified paleontological monitor shall observe all ground disturbing activities at all depths. The paleontological monitor will recover any significant fossil materials that would potentially be impacted by ground disturbing activities. To avoid construction delays, the paleontological monitor should be equipped to salvage fossils immediately as they are unearthed and to remove samples of sediments that are likely to contain the remains of small fossil vertebrates, in accordance with standards for such recovery established by the Society of Vertebrate Paleontology (SVP). Recovered specimens should be prepared to a point of identification, including washing of sediments to recover smaller fossil remains. Once excavation has reached specified depths, salvage of fossil material from the sidewalls of the cut may resume. Specimens shall be identified and curated into a museum repository with retrievable storage.

The GPU Policy OS-8.7 combined with the following mitigation measure is required to reduce impacts from development on potential surface and subsurface paleontological resources or unique geological features to less than significant.

Level of Significance After Mitigation:

Less than significant.

G. Would the project cause substantial adverse cumulative impacts with respect to geology and soils?

Impacts related to geology and soils are generally site specific and not cumulative in nature because each project area has unique geologic considerations that would be subject to uniform site development and construction standards. As such, the potential for cumulative impacts is limited. Impacts associated with potential geologic hazards related to soil or other conditions occur at individual building sites. These effects are site-specific, and impacts would not be compounded by additional development. Adherence to existing policies and code requirements would reduce impacts from geologic hazards to a less-than significant level. Mitigation Measures GEO-1 would reduce potential paleontological impacts. Implementation of the Project would not result in a cumulatively considerable impact.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

None required.

4.7.5 References

County of Riverside (2015). General Plan: Cultural and Paleontological Resources (Section 4.9, Figure 4.9.3) Electrically available at: https://planning.rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/04-09_CulturalAndPaleoResrcs.pdf.

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4.8 – Greenhouse Gases

This section describes the existing greenhouse gases (GHG) setting of the Desert Hot Springs General Plan Planning Area; identifies associated regulatory requirements; evaluates the Project's potential GHG and climate change impacts; and identifies mitigation measures related to implementation of the Project. The methodologies and assumptions used in the preparation of this section follow guidance from the South Coast Air Quality Management District (SCAQMD). Information on existing GHG emissions levels and applicable Federal and State regulations were obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This GHG analysis has been closely coordinated with the air quality and energy analyses in Sections 4.3 and 4.6 of this EIR. Please refer to Appendix D for detailed air quality and GHG emissions estimates (MIG, 2019).

4.8.1 Environmental Setting

Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (°F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet, and without it, life as we know it on Earth would not exist. Human activities since the beginning of the industrial revolution (approximately 150 years) have been adding to the natural greenhouse effect by increasing the gases in the atmosphere that "trap" energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

Greenhouse Gases
Gases that "trap" heat in the atmosphere and affect regulation of the Earth's temperature are known as "greenhouse gases". Many chemical compounds in the Earth's atmosphere exhibit the GHG property. GHG allow sunlight to enter the atmosphere freely. When the sunlight strikes the Earth's surface, it is either absorbed or reflected back toward space. Earth, or materials near the Earth's surface, that have absorbed energy from sunlight warm up during the daytime and emit infrared radiation back toward space during both the daytime and nighttime hours. GHG absorb this long-wave, infrared radiation and help keep the energy in the Earth's atmosphere.

GHG that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO_2), and off-gassing from low-oxygen environments such as swamps or exposed permafrost (methane or CH_4). However, GHG emissions from human activities such as fuel combustion (e.g., CO_2) and refrigerants use (e.g., hydrofluorocarbons, or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO_2 concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 410 ppm in August 2019 (NOAA 2019). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHG—CO_2, CH_4, nitrous oxide (N_2O), and sulfur hexafluoride (SF_6)—and two groups of gases—HFCs and perfluorocarbons (PFCs). These GHG are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the Earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the Earth's atmosphere. The most common GHG are described below.

- **Carbon Dioxide (CO_2)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of CO_2 from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO_2 at the sea surface. CO_2 is also released from plants during wildfires. Volcanic eruptions release a small amount of CO_2 from the Earth's crust. Human activities that affect CO_2 in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO_2 emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO_2. Emissions from industrial activities also emit CO_2 such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.
- **Methane (CH_4)** is emitted from human activities and natural sources. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause CH_4 releases include fossil fuel production, animal digestive processes from farms, manure management, and waste

management. It is estimated that 50% of global CH_4 emissions are human generated. Releases from animal digestive processes at agricultural operations are the primary source of human-related CH_4 emissions. CH_4 is produced from landfills as solid waste decomposes. CH_4 is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases CH_4. Wetlands are the primary natural producers of CH_4 because the habitat is conducive to bacteria that produce CH_4 during decomposition of organic material.

- **Nitrous Oxide (N_2O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N_2O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N_2O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N_2O, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.
- **Sulfur Hexafluoride (SF_6)** is commonly used as an electrical insulator in high-voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF_6 occur during maintenance and servicing as well as from leaks of electrical equipment.
- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely human made and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing. HFCs and PFCs are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons.

In 1997, the U.S was a signatory to the Kyoto Protocol; however, the treaty was not sent to Congress for ratification. Thus, while a signatory to the Kyoto Protocol, the U.S. is not an official party to this international agreement and is not subject to any emission reductions goals established pursuant to the Kyoto Protocol. Although the U.S. is not a party to this agreement, the GHG targeted for reduction by the Kyoto Protocol are also targeted under federal and State GHG reporting and emissions reduction programs.

GHG can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHG by their GWP determines their CO_2 equivalent (CO_2e), which enables a project's combined GWP to be expressed in terms of mass CO_2 emissions. The GWP and estimated atmospheric lifetimes of the common GHG are shown in Table 4.8-1 (Global Warming Potential (GWP) of Common GHG (100-Year Horizon)).

Table 4.8-1
Global Warming Potential (GWP) of Common GHG (100-Year Horizon)

GHG	GWP(A)	GHG	GWP(A)
Carbon Dioxide (CO_2)	1	Perfluorocarbons (PFCs)	
Methane (CH_4)	25	CF_4	6,500
Nitrous Oxide (N_2O)	298	C_2F_6	9,200
Hydrofluorocarbons (HFCs)		C_4F_{10}	7,000
HFC-23	14,800	C_6F_{14}	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF_6)	22,800
HFC-152a	140		
HCFC-22	1,700		
Source: CARB 2014 (A) GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report.			

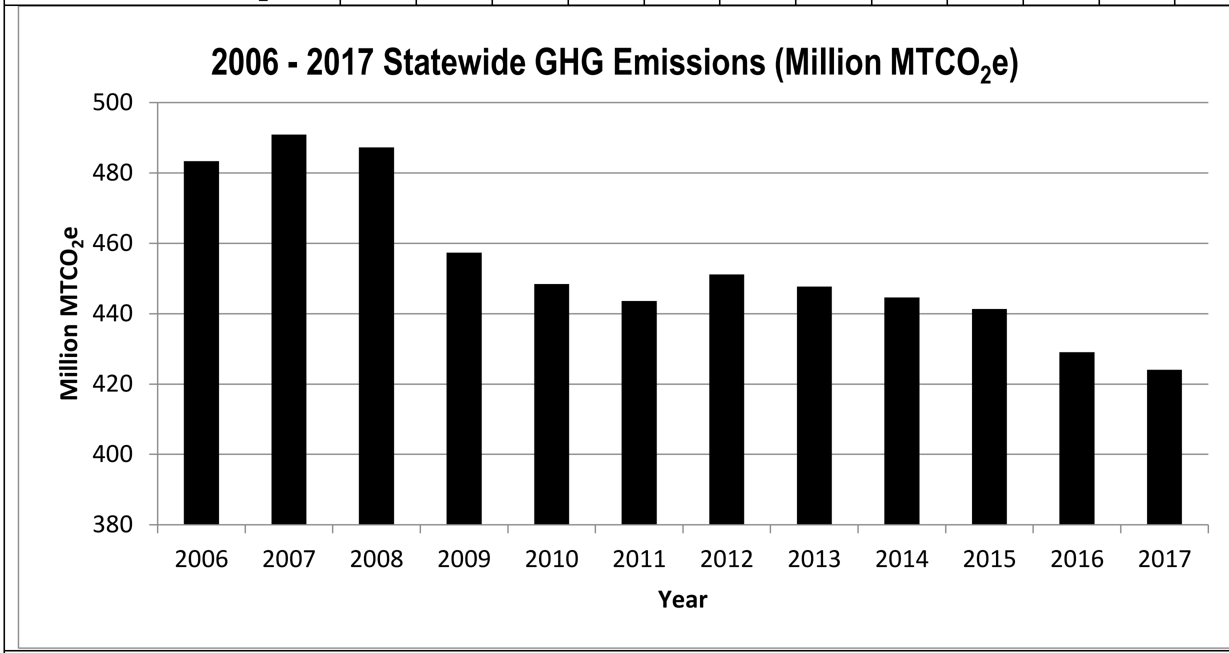
Statewide GHG Emissions

CARB prepares an annual statewide GHG emission inventory using regional, State, and federal data sources, including facility-specific emissions reports prepared pursuant to the State's Mandatory GHG Reporting Program. The statewide GHG emission inventory helps CARB track progress towards meeting the State's Assembly Bill (AB) 32 GHG emissions target of 431 million metric tons of CO_2 equivalents ($MTCO_2e$), as well as establish and understand trends in GHG emissions[1]. Statewide GHG emissions for the 2006 to 2017 time period are shown in Table 4.8-2 (2006-2017 Statewide GHG Emissions (in Million $MTCO_2e$)).

[1] CARB approved use of 431 million $MTCO_2e$ as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million $MTCO_2e$.

Table 4.8-2
2006-2017 Statewide GHG Emissions (in Million $MTCO_2e$)

Scoping Plan Sector	Year											
	'06	**'07**	**'08**	**'09**	**'10**	**'11**	**'12**	**'13**	**'14**	**'15**	**'16**	**'17**
Agriculture	35	36	36	33	34	35	36	35	36	34	34	32
Commercial/Residential	43	43	44	44	45	46	43	44	37	38	39	41
Electric Power	105	114	120	101	90	88	95	90	88	84	69	62
High GWP	10	11	12	12	14	15	16	17	18	19	20	20
Industrial	93	90	91	88	91	91	91	94	94	92	90	89
Recycling and Waste	8	8	8	8	8	8	8	9	9	9	9	9
Transportation	189	189	178	170	165	162	161	161	162	166	169	170
Total Million $MTCO_2e^{(A)}$	***483***	***490***	***487***	***457***	***448***	***444***	***450***	***448***	***444***	***441***	***429***	***424***



Source: CARB 2019
(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' IPCC's 4th Assessment Report.

As shown in Table 4.8-2, statewide GHG emissions have generally decreased over the last decade, with 2017 levels (424 million $MTCO_2e$) approximately 12% less than 2006 levels (483 million $MTCO_2e$) and below the State's 2020 reduction target of 431 million $MTCO_2e$. The transportation sector (170 million $MTCO_2e$) accounted for more than one-third (approximately 40.1%) of the state's total GHG emissions inventory (424 million $MTCO_2e$) in 2017.

Climate Change and California
The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.

- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted Safeguarding California Plan: 2018 Update, which builds on nearly a decade of adaptation strategies to communicate current and needed actions State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new "Climate Justice" chapter highlights how equity is woven throughout the entire plan (CNRA 2018).

Existing Planning Area GHG Emissions

The existing land uses within the Planning Area contribute to existing city, regional, and statewide GHG emissions. The Planning Area's existing GHG emissions, presented below in Table 4.8-3 (Existing (2019) GHG Emissions in the Planning Area), were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated within the Planning Area primarily come from the area, energy, and mobile sources described in Section 4.3.1, Air Quality (Environmental Setting), as well as the following additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses in the Planning Area use and consume approximately 192,048,270 kilowatt hours (kWh) of electricity per year and 706,691,106 kilo-British Thermal Units (kBtus) of natural gas per year.
- **Solid waste disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 22,472.9 tons of solid waste are generated per year by the people working and living within the Planning Area.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Planning Area use approximately 2,592.0 million gallons of water per year.

The Planning Area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod, with the Project-specific modifications described in Section 4.3.1 and below:

- **Mobile Sources.** The default, weekday and weekend trip generation rates for existing land use types were utilized in the emissions modeling. CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:
    - N_2O emissions were estimated for the Project by comparing the ratio of CO_2 and N_2O emissions from the on-road vehicle sector contained in the State's most recent GHG inventory (CARB 2019). In 2017, statewide CO_2 and N_2O emissions

estimates for the on-road transportation sector were 152.4 and 0.011 million metric tons, respectively (N_2O emissions are therefore equal to 0.007% of CO_2 emissions for this sector).

- Based on the latest estimate available from CARB, the LCFS regulation resulted in a 3.7% reduction in average carbon intensity content in transportation fuels in 2017. Therefore, the CalEEMod estimate of CO_2 emissions was reduced by 3.7% (CARB 2018).

- **Energy use and consumption:** In addition to natural gas usage, the existing land uses in the Planning Area would generate indirect GHG emissions from electricity use. Southern California Edison (SCE) provides electricity service in the City of Desert Hot Springs. The CalEEMod default GHG intensity values for this electric service provider are from 2012 and do not represent existing and future reductions in GHG intensity that have been achieved under the State's Renewable Portfolio Standard (RPS, see Section 4.8.2). To account for this, CalEEMod default assumptions regarding energy use were adjusted as follows:

  - The SCE GHG intensity value was reduced based on an increase in renewable energy mix from 20% under estimated Year 2012 conditions (the CalEEMod default data year) to 32% under existing conditions (2019, based on 2017 available data from SCE). This adjustment reduced the estimated amount of CO_2 produced by the SCE energy mix from approximately 702 pounds/megawatt-hour (lbs/MWh) to 531 lbs/MWh (SCE 2018).
  - Electricity generation emission factors for CH_4 (0.033 lbs/MWh) and N_20 (0.004 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2016, the last year for which data was available at the time this EIR was prepared (U.S. EPA 2016).

The Planning Area's existing GHG emissions are summarized in Table 4.8-3 (Existing (2019) GHG Emissions in the Planning Area) below.

Table 4.8-3
Existing (2019) GHG Emissions in the Planning Area

Source	GHG Emissions (Metric Tons / Year)			
	CO_2	CH_4	N_2O	Total $MTCO_2e$
Area	14,219.3	6.4	0.3	14,463.6
Energy[(A)]	83,947.1	3.6	1.0	84,346.9
Mobile[(B)]	233,818.1	16.0	17.0	239,281.8
Waste	4,561.8	269.6	0.0	11,301.7
Water	8,254.4	55.9	1.4	10,058.5
Total Existing GHG[(C)]	344,800.7	351.5	19.7	359,452.5
Service Population (SP)[(D)]	--	--	--	53,732
Existing GHG Efficiency[(E)]	--	--	--	6.7

Source: MIG 2019 (see Appendix D)

(A) Of the approximately 84,346.9 $MTCO_2e$ associated with energy consumption, approximately 55% (46,411.1 $MTCO_2e$) is from electricity use and the remaining approximately 45% (37,935.8 $MTCO_2e$) is from natural gas use.

(B) CalEEMod 2016.3.2 does not incorporate GHG emissions reductions resulting from the State's Low Carbon Fuel Standards (LCFS). Although LCFS largely reduces GHG from upstream fuel processing (and not individual tailpipe emissions) the aggregate effect on transportation fuels is a reduction in GHG emissions throughout the state from lower fuel carbon content. Accordingly, this EIR analysis reduces transportation combustion emissions pursuant to LCFS requirements. Based on the latest estimate available from CARB, the LCFS regulation resulted in a 3.7% reduction in average carbon intensity content in 2017. Thus, CalEEMod transportation emissions were adjusted by multiplying by a factor of .963 to account for the LCFS regulation (CARB 2018).

(C) Totals may not equal due to rounding.

(D) Service Population is defined as the sum of the number of residents and number of jobs supported by the Project (CAPCOA 2010).

(E) The GHG efficiency metric averages GHG emissions over the number of people the Planning Area the Project serves, and provides valuable information about the project's ability to help obtain GHG reduction goals.

4.8.2 Regulatory Framework

This section summarizes key federal, State, and City statutes, regulations, and policies that would apply to the Project. Global climate change resulting from GHG emissions is an ongoing environmental concern being discussed at the international, national, and statewide levels. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change.

International and Federal

International Regulation and the Kyoto Protocol
In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the "United Nations' Framework Convention on Climate Change" agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG in the United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

Federal Regulation and the Clean Air Act

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 $MTCO_2e$. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a "major" source required to obtain a permit pursuant to the "Clean Air Act's Prevention of Significant Deterioration" or "Title V" operating permit programs. The U.S. EPA's Greenhouse Gas Reporting Program requires facilities that emit 25,000 $MTCO_2e$ or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

The Current Administration

President Trump and the U.S. EPA have stated their intent to halt various federal regulatory activities to reduce GHG emissions. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

State and Regional

Assembly Bill 32 (California Global Warming Solutions Act) and Related GHG Goals

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order (EO) S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target is December 31, 2020.

As part of AB 32, CARB determined 1990 GHG emissions levels and projected a "business-as-usual" (BAU)[2] estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million $MTCO_2e$ (CARB 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 statewide GHG emissions levels of 596 million $MTCO_2e$ and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million $MTCO_2e$ of GHG reductions and bring statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

EO B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.

[2] BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, EO B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through EO B-30-15, Governor Brown signed Senate Bill (SB) 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the State's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

Scoping Plan

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Scoping Plan were to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven states in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB 2009). CARB estimated that implementation of these measures will achieve at least 174 million $MTCO_2e$ of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program's environmental documentation.

On February 10, 2014, CARB released the public draft of the "First Update to the Scoping Plan." "The First Update" built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments (CARB 2014). "The First Update" defined CARB's climate change priorities over the next five years, and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. "The First Update" evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. "The First Update" to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under EO B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million $MTCO_2e$ and 83 million $MTCO_2e$ by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons per capita by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- LCFS, with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)
In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were eight percent by year 2020 and 13 percent by year 2035. In

September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future.* The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region's multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG's Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an 8% reduction in GHG emissions per capita by 2020, an 18% reduction by 2035, and a 21% reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State's mandate, which require an 8% reduction by 2020 and 13% by 2035.

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. The 2016 RTP/SCS, however, remains the approved SCS for the SCAG MPO until such time as SCAG prepares an updated SCS.[3]

Senate Bill 350 (Clean Energy & Pollution Reduction Act) and Senate Bill 100
SB 350 was signed into Law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40% of the state's energy supply to come from renewable sources by 2024, 45% by 2027, and 50% by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement for 2030 from 50% to 60%.

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[3] Desert Hot Springs is within the Coachella Valley Association of Governments (CVAG) jurisdiction. The CVAG is the recognized transportation planning agency within the Riverside County Transportation Commission who has the responsibility of preparing and adopting an RTP for Coachella Valley. This is accomplished through the of the Transportation Project Prioritization Study (TPPS), which identifies and prioritizes transportation projects in the region. The projects within the TPPS are fed into a larger, regional planning effort undertaken by the SCAG (i.e., the SCAG RTP/SCS) which includes the majority of projects within the TPPS. Although the CVAG is the applicable transportation planning agency for Desert Hot Springs, it is not a designated MPO by CARB; thus, the RTP applicable to Desert Hot Springs pursuant to SB 375 is the SCAG 2016 RTP/SCS.

Assembly Bill 1493
With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California's related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards.

Executive Order B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets)
California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40% below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40% below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-55-18
Governor Brown issued EO B-15-18 on September 10, 2018, which directs the State to achieve carbon neutrality as soon as possible and no later than 2045, and achieve and maintain net negative emissions thereafter.

Title 24 Energy Standards
The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, will go into effect on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency.

Center for Biological Diversity v. California Department of Fish and Wildlife
In its decision in *Center for Biological Diversity v. California Dep't of Fish and Wildlife* (*Newhall*) 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project's GHG emissions:

1. A calculation of emissions reductions compared to a BAU scenario based upon the emissions reductions in CARB's Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.
2. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.
3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

Local

Desert Hot Springs General Plan
Policies that guide the City's evaluation of development proposals and inform CEQA as they relate to GHG and climate change are addressed in the following elements: Land Use and Community Development, Mobility and Infrastructure, and Open Space and Natural Resources. Several policies are identified in these Elements to reduce GHG emissions within the Planning Area as well as reduce potential impacts related to implementation of the General Plan Update (GPU):

- Policy LU-1.4: Sustainability
- Policy LU-1.5: Reduce Vehicular Trips and Miles Traveled
- Policy LU-7.1: Mixed-Use Commercial Component
- Policy LU-13.11: Trees and Landscaping
- Policy LU-15.2: Compliance
- Policy MI-1.1: Transportation Network Improvements
- Policy MI-1.3: Multi-Modal
- Policy MI-1.5: Roadways in Planning Communities
- Policy MI-2.1: Complete Streets
- Policy MI-2.2: Balanced Transportation System

- Policy MI-3.6: Traffic Calming
- Policy MI-4.3: Connectivity
- Policy MI-5.1: Reduce Vehicle Miles Traveled
- Policy MI-5.2: Sustainable Transportation and Land Use Strategies
- Policy MI-5.3: Clean Vehicles
- Policy MI-5.4: Traffic Mitigation
- Policy MI-5.6: Repaving and Repairing
- Policy MI-7.1: Bus Service
- Policy MI-7.2: Transit Expansion
- Policy MI-7.3: Transit Facilities
- Policy MI-9.1: Intelligent Transportation Systems
- Policy MI-9.3: Funding Sources
- Policy MI-10.2: Expand Funding
- Policy MI-10.3: Impact Fees
- Policy MI-10.4: Mitigation Fees
- Policy MI-11.11: Reduce Energy
- Policy MI-11.1: Energy Efficiency
- Policy MI-11.12: Minimize Solid Waste Streams
- Policy MI-11.13: Infrastructure Planning
- Policy OS-2.1: Air Pollution Reduction
- Policy OS-2.2: Climate Change Laws
- Policy OS-2.4: Air Quality Goals
- Policy OS-2.6: Alternative Fuels
- Policy OS-3.5: Water District Consultation
- Policy OS-3.6: Landscaping
- Policy OS-3.8: Recycled Water
- Policy OS-3.7: Grey Water
- Policy OS-4.1: Energy Conservation
- Policy OS-4.3: Rooftop Solar Projects
- Policy OS-4.4: Solar Energy Systems
- Policy OS-4.5: Solar Farms
- Policy OS-4.6: City Vehicle Replacement
- Policy OS-4.7: Alternative Electricity Options
- Policy OS-5.2: Waste Reduction
- Policy OS-6.1: Sustainable Construction
- Policy OS-6.2: Green Building
- Policy OS-7.4: Street Trees

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

Desert Hot Springs Municipal Code

Chapter 10.56 of Desert Hot Springs Municipal Code outlines the City's Transportation Demand Management (TDM) Requirements. In general, the City's TDM requirements apply to all new development projects and/or change of use projects that are estimated to employ a total of 100 or more persons. The methodology for estimating employment is defined in Section 10.56.030, which stipulates, for estimation purposes, there is considered to be one employee per every: 500 gross square feet for retail/commercial land use, 250 gross square feet for office/professional land use, 525 gross square feet for industrial/manufacturing land use, 0.1-1.2 employees/room at hotel and motel land use, and every 300 gross square feet of hospital land use. Projects and land uses subject to the City's TDM requirements have to develop a TDM plan that complies with all SCAQMD Regulation XV requirements and has a goal of achieving a vehicle occupancy rate

(VOR) of 1.5.[4] Options identified in the Municipal Code for demonstrating the VOR rate of 1.5 include, but are not limited to: providing transit facilities, bicycle facilities, rideshare facilities, and on-site childcare facilities; allowing for alternative work schedules/flex-time, telecommuting, on-site employee housing and shuttles; and incentives for mass transit usage including provision of a bus pass, additional pay, flex-time or others.

Desert Hot Springs Climate Action Plan

In July 2013, the City of Desert Hot Springs adopted a Climate Action Plan (CAP) for the development and implementation of policies and programs to reduce GHG emissions within the City (DHS 2013). The CAP is based on the directives of the AB 32 and EO S-3-05. The CAP uses a GHG emission inventory from the Year 2010 to establish the City's baseline emissions for the purposes of assessing future GHG reduction goals and forecasting GHG emissions in the future. In the Year 2010, the CAP estimated the city's community-wide GHG emissions were approximately 100,654 $MTCO_2e$. Based on this historical emissions profile, the CAP established its annual Year 2020 GHG emission reduction goal to be 64,047 $MTCO_2e$, which would require an approximately 48,769 $MTCO_2e$ decrease from its BAU forecasted scenario for the Year 2020. The CAP includes 80 specific measures to reduce the City's GHG emissions. These measures are grouped into the following seven spheres of daily life:

1. Where We Live (Live)
2. Where We Work (Work)
3. How We Build (Build)
4. How We Get Around (Mobility)
5. How We Govern (Govern)
6. Where We Visit and Play (Recreate)
7. How We Teach and Learn (Learn)

While the overarching goal of the CAP is to reduce GHG emissions pursuant to directives in AB 32 and EO S-3-05, other desired objectives associated with the adoption of the CAP include:

- Increasing energy efficiency in local government operations and in community activities;
- Supporting City and community initiatives to increase health and wellness;
- Creating new jobs associated with smart energy management;
- Saving money now being spent for energy and keeping it in the City be establishing a revolving fund whereby funds derived from municipal energy savings will be available for municipal and community programs to further reduce GHG emissions.
- Maintaining or increasing the comfortable desert lifestyle of residents and visitors alike; and
- Bringing Coachella Valley Association of Governments' jurisdictions together for effective regional climate planning.

[4] Rule 1501 and 1501.1 were repealed by the SCAQMD on December 8, 1995. The current SCAQMD Rule applicable to mitigating on-road vehicle emissions is Rule 2202 (On-road Motor Vehicle Mitigation Options), which was last amended on June 6, 2014. Rule 2202 is applicable to any person(s), firm, business, educational institution, non-profit agency or corporation, government agency, or other entity that employs 250 or more employees, as defined in the Rule.

4.8.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. Per the CEQA Guidelines, implementation of the Project would have a significant impact related to GHG emissions if it would:

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?

C. Would the project cause substantial adverse cumulative impacts with respect to greenhouse gases?

In order to provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened the first GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008 (SCAQMD 2008). To date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010 (SCAQMD 2010). Based on the last Working Group meeting, the SCAQMD identified an interim, tiered approach for evaluating GHG emissions intent on capturing 90 percent of development projects where the SCAQMD is not the lead agency. The following describes the basic structure of the SCAQMD's tiered, interim GHG significance thresholds:

A. Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.

B. Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.

C. Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:

   a. 3,000 $MTCO_2e$/yr for all land use types; or

   b. 3,500 MTCO2e/yr for residential; 1,400 MTCO2e/yr for commercial; 3,000 MTCO2e/yr for mixed use projects.

D. Tier 4 has three options for projects that exceed the screening values identified in Tier 3:

   a. Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined).

   b. Option 2: Early implementation of applicable AB 32 Scoping Measures.

   c. Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 $MTCO_2e$/yr/SP by 2020 and 4.1 $MTCO_2e$/yr/SP by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 $MTCO_2e$/yr/SP for the 2020 and 2035 calendar years, respectively.

The GPU plans for growth through 2040, five years before the SCAQMD's latest Tier 4 interim efficiency target year (2035) identified above. Therefore, to evaluate the Project's GHG emissions against future GHG reduction goals, the plan-level efficiency target has been adjusted based on the GHG reduction targets of SB 32, which sets a target of 40 percent below 1990 levels by 2030, and Executive Order S-03-05, which sets a goal of 80 percent below levels by 2050. The resulting, interpolated efficiency target for the year 2040 is 2.6 $MTCO_2e$/yr/SP.[5]

4.8.4 Environmental Impacts

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1: The proposed project would generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment.

Analysis of Impacts

GPU implementation would result in construction and operational activities that would generate GHG emissions. As described in more detail below, the GHG emissions generated by the growth envisioned under the GPU would exceed SCAQMD thresholds and result in a significant and unavoidable impact even with the inclusion of feasible mitigation measures.

Annual Construction Emissions

GPU implementation would result in construction activities that would generate GHG emissions primarily from fuel combustion in equipment during demolition, site preparation, grading, building construction, paving, and architectural coating activities and in worker, vendor, and haul trips to and from future development projects. Demolition and construction activities would occur intermittently at different sites within the Planning Area over the next approximately 20 years.

To determine if anticipated typical construction activities could result in a significant GHG emissions impact, construction emissions were modeled using CalEEMod V. 2016.3.2. As described under Impact AQ-2, due to the uncertainty of timing and methods of construction activities that would occur for future development projects, the construction emissions analysis assumed that a maximum of 10 percent of the growth envisioned within the Planning Area could be under construction in any given year (see Section 4.3, Air Quality, Table 4.3-6).[6]

Generally, the SCAQMD recommends amortizing construction GHG emissions over a 30-year period since construction activities for a project typically only occur towards the start of a project and cease to emit GHG upon the completion of construction activities. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. Since Project growth is expected to occur over approximately 20 years, with construction potentially occurring every year, the emissions resulting from

[5] To remain on track with future GHG reduction goals, it is necessary to identify the efficiency target for 2040. Pursuant to existing legislation, GHG emissions are required to be reduced to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 – meaning a 40 percent reduction would need to occur between 2030 and 2050 compared to 1990 levels. 2040 is the halfway point between 2030 and 2050; thus, half the reductions that need to occur between 2030 and 2050 should be achieved by 2040 (i.e., GHG emissions should be 60 percent below 1990 levels by 2040). Using the efficiency metric for 2020, 6.6 $MTCO_2e$/yr/SP (the same efficiency as 1990 pursuant to AB 32 reduction requirements) and multiplying through by 40 percent (i.e., 60 percent below 1990 levels) results in a derived efficiency metric of 2.6 $MTCO_2e$/yr/SP for year 2040. The City is not applying or proposing to use 2.6 $MTCO_2e$/yr/SP as a CEQA GHG significance threshold for general use; rather, it is only intended for use on this Project.

[6] This is considered a conservative assumption because it represents a doubling of the overall average activity that could occur over an approximately 21-year growth period and thus likely overestimates potential annual construction-related GHG emissions resulting from implementation of the Project.

construction of 10 percent of the Planning Area's growth are assumed to represent potential annual construction emissions and, therefore, are grouped with operational emissions below. The annual construction-related GHG emissions that could occur with Project implementation are shown in Table 4.8-4 (Project Construction GHG Emissions Estimates).

Table 4.8-4
Project Construction GHG Emissions Estimates

Source	GHG Emissions (Metric Tons / Year)			
	CO_2	CH_4	N_2O	Total $MTCO_2e$
Maximum Annual Construction Emissions	6,717.3	0.9	0.0	6,739.6
Source: MIG 2019. See Appendix D				

Operational Emissions

As explained in more detail in Section 4.3, Air Quality, the Project would accommodate new residential, commercial, and industrial uses that will operate up to and likely through 2040. Projected growth could include up to an additional 34,564 dwelling units, 6,574 new students, 297 new hotel rooms, and approximately 17,069,838 additional square feet of non-residential land uses within the City. The use of existing structures in the Planning Area, as well as the operation of new developments, would result in GHG emissions from mobile, energy, and area sources. Mobile sources, including vehicle trips to and from land uses within the City, would result primarily in emissions of CO_2, with emissions of CH_4 and NO_2 also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by land uses within the Planning Area would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy when transporting and managing the waste. In addition, landfilling, the most common waste management practice, results in the release of CH_4 from the decomposition of organic materials.

Potential operational GHG emissions resulting from Project operation were modeled using CalEEMod, Version 2016.3.2. The modeling assumes Project growth consistent with the change in land uses shown in Section 4.3, Air Quality, Table 4.3-8. The modeling is based on default data assumptions contained in CalEEMod, with the project-specific modifications described under Impact AQ-2, as well as the following adjustments to default model assumptions:

- **Mobile Sources.** The CalEEMod project files utilize default CalEEMod trip generation and distance values. After the mobile source GHG emissions have been estimated in CalEEMod, the following adjustments are made:
    - N_2O emissions were estimated for the Project by comparing the ratio of CO_2 and N_2O emissions for the on-road sector contained in the State's most recent GHG inventory (CARB 2019). In 2017, statewide CO_2 and N_2O emissions estimates for the on-road transportation sector were 152.4 and 0.011 million metric tons, respectively (N_2O emissions are therefore equal to 0.007% of CO_2 emissions for this sector).

- The CalEEMod estimate of CO_2 emissions was reduced by 20% to reflect the reduction in carbon intensity that would be achieved under the State's LCFS (see Section 4.8.2) program by Year 2030.

- **Energy use and consumption.** In addition to natural gas usage, operation of the proposed Project would generate GHG emissions from electricity use. CalEEMod contains default energy efficiency values that are based on the 2016 energy code. To account for more efficient energy use that is anticipated to occur under the 2019 and subsequent energy codes, CalEEMod default assumptions regarding energy use were adjusted as follows:
  - CalEEMod default energy efficiency values for residential land uses were adjusted downwards by a factor of 0.5 to reflect increased energy efficiency and solar photovoltaic requirements of the 2019 energy code (CEC 2018). Similarly, the non-residential default light energy intensity value was adjusted downwards by a factor of 0.7 to reflect increased lighting efficiency in the 2019 energy code.

The total unmitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.8-5 (Unmitigated GPU GHG Emissions), below. As described above, the SCAQMD recommends the use of an efficiency threshold for plan-level analysis in which potential emissions levels are considered in terms of how many GHG emissions would be produced by each resident and employee using a project's facilities, thus, adjusted 2040 project-level efficiency target of 2.6 $MTCO_2e$/yr/SP was used.

Table 4.8-5
Unmitigated GPU GHG Emissions

Source	GHG Emissions ($MTCO_2e$ / Year)		
	Existing (2019)[(A)]	**GPU (2040)**	**Net Change**
Area	14,463.6	36,801.9	+22,338.3
Energy	84,346.9	111,450.5	+27,103.6
Mobile[(B)]	239,281.8	515,918.6	+276,636.8
Waste	11,301.7	37,341.1	+26,039.4
Water	10,058.5	12,547.3	+2488.8
Operational Total[(C)]	359,452.5	714,059.5	+354,606.9
Construction	--	6,739.6	+6,739.6
Total Emissions	359,452.5	720,799.0	+361,346.5
Service Population (SP)	53,732	156,933	+103,201
$MTCO_2e$/yr/SP	6.7	4.6	-2.1
SCAQMD Tier 4 Adjusted 2040 Plan Level Efficiency Threshold	--	2.6	--
Exceeds Threshold?	**--**	**Yes**	**--**

Source: MIG 2019 (see Appendix D)
Notes:
(A) See Table 4.8-3 for existing GHG emissions in the Planning Area.
(B) CalEEMod 2016.3.2 does not incorporate GHG emissions reductions resulting from the State's LCFS. Although LCFS largely reduces GHG from upstream fuel processing (and not individual tailpipe emissions) the aggregate effect on transportation fuels is a reduction in GHG emissions throughout the state from lower fuel carbon content. Accordingly, this EIR analysis reduces transportation combustion emissions pursuant to LCFS requirements. Based on the latest estimate available from CARB, the LCFS regulation resulted in a 3.7% reduction in average carbon intensity content in 2017 and should result in a 20% reduction in average carbon intensity in 2020. Thus, CalEEMod transportation emissions were adjusted by multiplying by a factor of .963 for existing and 0.8 for project emissions to account for the LCFS regulation (CARB 2018).
(C) Totals may not equal due to rounding.

As shown above in Table 4.8-5, the Planning Area would emit approximately 720,799 $MTCO_2e$ annually by 2040.[7] Dividing through by the Project service population (156,933 residents and employees) results in an efficiency metric of 4.6 $MTCO_2e$/yr/SP for 2040. Although this GHG efficiency level does not meet the adjusted target for 2040 (2.6 $MTCO_2e$/yr/SP), it does show an appreciable reduction from existing conditions (the GHG efficiency occurring under 2040 growth conditions would be approximately 31% less than 2019 conditions).

The primary source of GPU GHG emissions would be mobile sources, specifically from the single family residential and regional shopping center land uses, which represent approximately 43% and 24% of total annual VMT occurring 2040 growth conditions, respectively. The mobile source emission estimates are conservative, since they do not take into account land use interactions (e.g., residential land use proximity to commercial land uses) and transit amenities (e.g., bus routes) that would likely reduce the number of vehicle trips generated in the Planning Area and the quantity of vehicle miles traveled.

Level of Significance Before Mitigation

As shown in Table 4.8-5, the GPU's 2040 growth projection would result in GHG emissions that exceed the adjusted SCAQMD derived plan-level efficiency metric. This is considered a **potentially significant** impact.

Mitigation Measures

Mitigation Measure GHG-1A: The 2019 CalGreen Code contains several voluntary measures that are not formally required. Within one year of adoption of the General Plan Update the City shall adopt an ordinance that incorporates, requires and makes mandatory certain Calgreen Code voluntary measures as described below.

1) Require new residential tentative tract maps that would allow 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.1 of the CalGreen Code, and that each dwelling be equipped with a vehicle charging station that has a similar or better functionality than a Level 2 charging station.
2) Require new multifamily projects with 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.2 of the CalGreen Code, and that each one of the parking spaces that has such electric vehicle infrastructure be equipped with vehicle charging stations that have a similar to better functionality than a Level 2 charging station.
3) Require new non-residential development projects to provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles pursuant to the Tier 2 requirements of Table A5.106.5.1.2 of the CalGreen Code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen Code.
4) Require new non-residential development projects to provide electric vehicle charging spaces with electric vehicle infrastructure in compliance with Table A5.106.5.3.2 of the California Green Code and be equipped with vehicle charging stations that have similar

[7] The estimated GHG emissions associated with buildout of the proposed Genera Plan do not take into account loss of natural land (e.g., desert vegetation) in the Planning Area that currently sequesters CO_2, because of the lack of available data on plant type and density and the large geographic area the Planning Area covers. Since this data is not currently available, any estimate of the amount of carbon sequestered by the existing natural land could be orders of magnitude off from actual conditions.

or better functionality than a Level 2 charging station. Such spaces shall be marked in compliance with Section A5.106.5.3.3 of the CalGreen Code.

Mitigation Measure GHG-1B: The City shall, if feasible, establish a municipally-operated and -controlled electricity power provider (Community Choice Aggregation (CCA)) for the City of Desert Hot Springs within four years of adoption of the General Plan Update, or otherwise as expeditiously as possible given the City's resources. The overarching purpose and intent of the CCA is to provide 100% renewable electricity to all customers in Desert Hot Springs. The CCA will:

- Offer electricity at rates that are competitive with those provided by Southern California Edison (SCE).
- Offer, at minimum, two options for customers:
    - The first, default option shall offer electricity that contains a renewable mix exceeding that provided by SCE.
    - The second option shall offer electricity that comes from 100% renewable sources.
- Upon its inception, automatically enroll all public and private accounts in the city into the CCA program. All residential and non-residential customers shall be enrolled in the first, default option (i.e., the program that has a renewable mix that exceeds that provided by SCE).

Mitigation Measure GHG-1C: Within four years of the adoption of the General Plan, the City shall consider and evaluate the feasibility of adopting an ordinance that amends Chapter 15.08 of the City's Municipal Code, so that all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective ,the City shall adopt a ZNE ordinance as expeditiously as possible given City resources. As defined by the California Energy Commission (CEC) in its 2015 Integrated Energy Policy Report, ZNE standards require the value of the net energy produced by project renewable energy resources equal the value of the energy consumed annually by the project, using the CEC's Time Dependent Valuation.

Mitigation Measure GHG-1D: The City shall prepare and adopt a Multimodal Mobility Plan within four years of adoption of the General Plan Update, or otherwise as expeditiously as possible given City resources. The Multimodal Mobility Plan shall, at a minimum:

1) Identify the City's plan for improving and expanding transit amenities and non-vehicular (e.g., bicycle and pedestrian) infrastructure in the City.
2) Specify measures or a group of measures that, if implemented on a project-by-project basis, would reduce the number of single-occupancy vehicle trips and fossil fuel powered vehicles operating on roadways within Desert Hot Springs to a percentage that is consistent with reduction in per capita passenger vehicle GHG reduction targets established by CARB for the SCAG region under SB 375. During development of the Multimodal Mobility Plan, the City shall.
    a. Consult with public transit system operators (e.g., Sunline Transportation Agency, Native American tribes, and others, as applicable) to identify potential routes,

infrastructure, and service locations capable of serving new development identified in the General Plan.

b. Revisit the way the City addresses transportation impacts fees. In addition to having fixed fees by development type, adopt a traffic mitigation fee that ensures new development pays its fair share toward roadway and non-vehicular infrastructure improvements.

c. Provide the framework for updating the City's existing Transportation Demand Management (TDM) requirements contained in Chapter 10.56 of the City's Municipal Code so it applies to additional, residential and non-residential development in the City. The revised TDM program shall specify what percent of vehicle miles traveled must be reduced by the land use, compared to default rates.

3) Establish a mechanism to monitor progress toward achieving the goals set forth in the Multimodal Mobility Plan.

Mitigation Measure GHG-1E: Consistent with General Plan Implementation Policy C-3, the City shall prepare and adopt an updated Climate Action Plan within five years of adoption of the General Plan Update, or otherwise as expeditiously as possible given City resources. At a minimum, the Climate Action Plan shall:

1) Establish a community-wide greenhouse gas emissions inventory for a single, historic calendar year (e.g., Year 2010, consistent with the City's current Climate Action Plan, adopted in 2013).

2) Quantify greenhouse gas emissions, both existing and proposed over a specified time period. The time period forecasted shall be no less than the Year 2040. Additional, forecasted years (e.g., 2030, 2035, etc.) may be included.

3) Identify annual, community-wide greenhouse gas emission reduction targets (i.e., in $MTCO_2e$) and/or efficiency targets (i.e., in $MTCO_2e$ per service population and/or capita) that align the City's emissions with legislatively adopted State-wide greenhouse gas reduction targets (e.g., AB 32 and SB 32) for a specified calendar year. For a calendar year beyond that which has a legislatively adopted greenhouse gas reduction target, the greenhouse gas emissions reduction goal for 2050 outlined in EO S-3-05 shall be used as a future benchmark. The identified annual, community-wide greenhouse gas emissions target for the City may be an interpolated value based on legislatively adopted State-wide greenhouse gas reduction targets and those issued by Executive Order.

4) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified annual, community-wide greenhouse gas emission reduction targets and/or efficiency targets. The Climate Action Plan shall, at a minimum, specifically consider the following measures as well as those contained in the Multimodal Mobility Plan. If the following measures are not adopted, the Climate Action Plan shall clearly discuss why these measures were found to be infeasible.

a. Develop a detailed Waste Reduction Plan that identifies the City's strategy for diverting waste from landfills. The Waste Reduction Plan shall target achieving zero waste by 2040.

b. Identify the City's strategy for using recycled water in the City, once it becomes available from the Mission Springs Water District. Specifically investigate the feasibility of using such water at non-residential land uses, such as those used for cannabis cultivation. The strategy developed for the City shall be done in consultation with the Mission Springs Water District.

c. Establish a provision that, prior to issuing any building or grading permits, the City shall confirm project applicants and/or their designees fully mitigate the greenhouse gas emissions associated with the construction, operation, and vegetation change associated with the proposed project. Compliance options could include: 1) directly undertaking funding activities that reduce or sequester GHG emissions and/or 2) obtaining and retiring Carbon Offsets through an Approved Registry.

5) Establish a mechanism to monitor the plan's progress toward achieving its community-wide greenhouse gas emission reduction targets and/or efficiency targets, and require amendment if the Climate Action Plan is not achieving specified levels.

6) Be adopted in a public process following environmental review.

Level of Significance After Mitigation

The GPU includes goals and policies that promote mixed-use developments, transportation demand strategies, expansion of transit service, and other actions that reduce transportation-related GHG emissions. The GPU also includes goals and policies that encourage sustainable and green development that reduce energy-related GHG emissions. Although the GPU contains numerous goals and policies that highlight the City's intent to growth sustainably over the next couple decades, further actions are required to define the City's strategy for addressing GHG emissions over the next couple of decades. Accordingly, the City would implement Mitigation Measures GHG-1A through GHG-1E to reduce the quantity of GHG emissions generated under implementation of the GPU.

Mitigation Measure GHG-1A would require the City to adopt an ordinance that amends Section 15.08.160 of the City's Municipal Code so new residential and non-residential entitlements install electric vehicle (EV) charging stations. By requiring new entitlements for non-residential and residential developments consisting of 17 more dwelling units, the City would support, and increase the likelihood, accessibility, and convenience of owning and operating an EV, which could increase the use of EVs in the Planning Area (thereby reducing the number of fossil-fuel powered vehicles on roadways in the Planning Area and associated GHG emissions generated from mobile sources). Per capita passenger vehicle GHG emissions would be further reduced as electricity consumed in Desert Hot Springs is generated more and more by renewable sources,

Mitigation Measure GHG-1B would require the City to develop a Community Choice Aggregate (CCA) for Desert Hot Springs. Upon development of the CCA, all existing SCE accounts in the city would, by default, be enrolled in the CCA default option. Compared to SCE's electricity supplied from renewable sources (approximately 33 percent in 2019),[8] the CCA's renewable mix would, at a minimum, be higher than SCE's and would strive to supply all electricity from 100% renewable sources. In addition, the City would enroll all municipal accounts in the 100% renewable option. In doing so, the City would set an example for the community, highlighting the importance of choosing sustainable practices, and potentially lead to a higher, voluntary enrollment of private accounts in the 100% renewable option. This action would help address indirect GHG emissions associated with electricity consumption, which comprise approximately 12.9 percent of existing GHG emissions (see Table 4.8-3). Since the CCA has not yet been

[8] This estimate is a linearly interpolated value based on SCE's reported RPS mix in 2017 and future RPS mix requirement for 2030 mandated under SB 100.

established at this time, it is unclear when accounts in Desert Hot Springs would be served by the CCA.

Mitigation Measure GHG-1C would require the City to consider the feasibility of adopting an ordinance that would mandate all new residential and/or non-residential construction in the City meet Zero Net Energy (ZNE) standards, as feasible. Unlike imbedded GHG emissions associated with electricity consumption, which can be reduced by supplying the electricity grid with more electricity produced from carbon-free sources, it is difficult to directly reduce GHG emissions associated with natural gas consumption without restricting it use; however, on July 2019 the City Council passed Resolution No. 2019-036 that stipulates the residents and employers in Desert Hot Springs have the right to choose what type of energy (i.e., electricity or natural gas) their developments consume. Reaching ZNE in new development, therefore, may be difficult unless the State adopts new building energy efficiency requirements.

To evaluate potential GHG emission reductions that would be achieved by a ZNE ordinance, it is helpful to compare the GPU's GHG emissions in the Year 2040 to those that would be generated by land uses existing in 2019, if they were operational in the Year 2040.[9] Table 4.8-6 (Existing Energy (2040) GHG Emissions vs. GPU Energy GHG Emissions) compares the operational GHG emissions associated with existing land uses if they were operational in the Year 2040 to those estimated under GPU buildout in Year 2040. These emission estimates are provided for informational purposes only and reflect the potential reductions that could be achieved under the implementation of a ZNE ordinance.

Table 4.8-6
Existing Energy (2040) GHG Emissions vs. GPU Energy GHG Emissions

Source	GHG Emissions ($MTCO_2e$ / Year)		
	Existing (2040)	GPU (2040)	Net Change
Electricity[(A)]	4,761.9	14,518.0	+9,756.1
Natural Gas	32,237.0	96,932.7	+64,695.8
Total	36,998.9	111,450.8[(B)]	+74,451.9

Source: MIG 2019 (see Appendix D)
Notes:
(A) Estimated electricity GHG emission values account for SCE's compliance with RPS requirements through the Year 2030 (i.e., 60 percent of the load provided to the city by SCE would come from RPS eligible sources).
(B) Total differs from that presented in Table 4.8-5 by approximately 0.3 $MTCO_2e$ due to the scaling that was done in order to process the proposed General Plan buildout in CalEEMod.

As shown in Table 4.8-6, newly proposed development in the Planning Area is estimated to increase annual electricity and natural gas consumption GHG emissions by approximately 9,756.1 $MTCO_2e$ and 64,695.8 $MTCO_2e$ respectively, compared to if the existing land uses in the City were operating in the Year 2040 under the current regulatory climate. Adopting a ZNE ordinance could reduce GHG emissions from newly proposed development in the Planning Area by approximately 74,452 $MTCO_2e$, which is approximately 10.3 percent of the total GHG emissions associated with the proposed General Plan (i.e., 720,799.0 $MTCO_2e$; see Table 4.8-5). The implementation of a ZNE ordinance is one of the earliest actions City would be able to implement that directs new development in the city to occur in a green and sustainable manner.

[9] For the changes in land use between existing conditions and the GPU buildout, see Table 4.3-8 in Section 4.3.1, Air Quality.

Mitigation Measure GHG-1D would require the City develop a Multimodal Mobility Plan. As shown in Table 4.8-5, the transportation sector is by far the largest contributor to GHG emissions in the City at approximately 515,918.6 $MTCO_2e$, or approximately 72% of the estimated GHG emissions associated with implementation of the GPU. Though, as noted before, this estimate is considered conservative, since the emissions modeling does not account for land use interactions that would serve to reduce vehicle trips and miles traveled in the Planning Area, mobile source emissions associated with buildout of the GPU would nonetheless be one of, if not the largest, sources of emissions the City needs to address. The Multimodal Mobility Plan would be a comprehensive document that identifies the City's strategy for reducing VMT in the city by:

1) Improving pedestrian and bicycle infrastructure,
2) Increasing the use and frequency of regional transit (e.g., buses),
3) Reassessing the way fees are applied to new development projects that adversely affect air quality, climate change, and/or traffic, and
4) Updating the City's TDM program contained in Chapter 10.56 of the Municipal Code.

Since many portions of the Planning Area are currently undeveloped, the City is in a prime position to develop the transportation network in a manner that places an emphasis on non-vehicular infrastructure. As identified in many policies, including MI-2.1: Complete Streets, the City envisions Desert Hot Springs transportation network as one that is designed for all users (e.g., cars, buses, bicycles, pedestrians, etc.). By developing the Multimodal Mobility Plan, and continuing to update it at least once every five years (or otherwise as expeditiously as possible given City resources), the City would be able to take a dynamic approach in identifying which portions of the City require improvements the most. The Multimodal Mobility Plan would be able to take into account development that has already occurred, is currently occurring, and is anticipated to occur over the near term.

During development of the Multimodal Mobility Plan, the City would be required to coordinate with the transit providers in the City (e.g., Sunline Transportation Agency, Native American tribes, etc.) and the CVAG to identify new locations for transit service (e.g., new bus stop) as well as areas that would benefit from increased transit service. To the extent possible, the City would work with CVAG to add major transportation projects in the city, or that would benefit VMT reduction in the city, to the Transportation Project Prioritization Study that feeds into a larger regional planning effort by the SCAG.

The City would also revisit their TDM requirements, as defined in Chapter 10.56 of the Municipal Code. Currently, the TDM requirements apply to all new development projects and/or change of use projects that are estimated to employ a total of 100 or more persons, as determined by the methodology described in Section 10.56.030 of the Municipal Code (See Section 4.8.2 of this EIR for information on the City's TDM requirements). Under the implementation of Mitigation Measure GHG-1D, the City would be required to revise the existing TDM requirements, so they would apply to a broader classification of projects (i.e., residential and non-residential projects) and decrease the threshold at which projects would be required to prepare a TDM plan. Additional revisions to Chapter 10.56 of the Municipal Code would also include the use of VMT as a metric to assess reductions needing to be achieved by a project, rather than VOR. Updating the City's metric for assessing TDM success to VMT would also align the City's approach with that taken by regional and state entities (e.g., SCAG and CARB) who use VMT as a metric for assessing GHG emissions reductions. If not identified in the initial iteration of the Multimodal Mobility Plan, future iterations of the Plan would define the City's approach for retroactively applying TDM requirements to existing development that may not currently be required to develop such a plan.

The final requirement in Mitigation Measure GHG-1D that would need to be assessed by the City in the Multimodal Mobility Plan, is the adoption and/or restructuring of a fee program, so projects would be obligated to pay their fair-share for addressing the impacts caused by the project. By developing a new fee structure and/or amending an existing one, the City would have a greater capacity for carrying out transportation infrastructure improvements in Desert Hot Springs.

Collectively, the measures identified in the Multimodal Mobility Plan would be required to demonstrate that the Multimodal Mobility Plan, if implemented, would reduce the City's mobile source emissions with the latest per capita passenger vehicle GHG emission reductions established by CARB for the SCAG MPO under SB 375. By demonstrating the city's per capita passenger vehicle GHG emissions are consistent with the reductions called for under SB 375, the Multimodal Mobility Plan, an implementing policy of the GPU, would demonstrate consistency with the SCAG RTP/SCS. Under implementation of the Multimodal Mobility Plan it is possible that approximately 98,024 $MTCO_2e$ could be reduced from the mobile sector.[10] This estimated reduction is provided for informational purposes, since the specific measures that would be required to achieve this reduction have not yet been identified and the methodology used to estimate per capita GHG emissions and the associated reductions may differ in the Multimodal Mobility Plan than those contained herein (i.e., it is possible the Multimodal Mobility Plan would use something other than CalEEMod to estimate trips, VMT, and GHG emissions in the Planning Area).

Implementation of measures that would expand the EV charging network, enrollment of public and private electricity accounts in the CCA, adoption of ZNE standards, and development of the Multimodal Mobility Plan form the foundation and backbone for developing and implementing a qualified CAP, which the City would be required to develop pursuant to Mitigation Measure GHG-1E. The CAP would compile the City's strategy for addressing GHG emissions into one, cohesive document, and would identify additional measures, as necessary, to align the city's GHG emissions state-wide GHG emission reduction goals. Other measures to be explored in the CAP would include: a Waste Reduction Plan; a strategy for using recycled water in the city, once it is available from the Mission Springs Water District; and a mechanism for ensuring any proposed development in the city fully offsets any and all net positive GHG emissions associated with the project, including the loss of desert vegetation, which sequesters carbon dioxide in the atmosphere. These measures together would address the following, major GHG emission sources: energy (ZNE standards), transportation/mobile sources (Multimodal Mobility Plan), water (recycled water strategy), and waste (Waste Reduction Plan). Similar to the Multimodal Mobility Plan, the CAP would be required to identify a mechanism for monitoring the CAP's progress toward achieving GHG emission reduction goals and would have to be updated at least once every five years.

Although the implementation of Mitigation Measures GHG-1A through GHG-1E would reduce the GHG emissions generated in the Planning Area, the Project's effect on GHG emissions would remain significant and unavoidable for a number of reasons. First, the sources and methodology used to develop the GHG emission estimates contained herein may differ from those used in the Multimodal Mobility Plan and the CAP. Whereas this EIR's emission estimates are based upon

[10] This estimate was developed by taking the mobile source emissions contained in Table 4.8-5 for the GPU (2040) (i.e., 515,918.6 $MTCO_2e$) and multiplying through by 19%, the 2035 per capita GHG emissions reduction goal for the SCAG MPO under SB 375.

default rates and assumptions contained in CalEEMod (with some adjustments made to the energy sector based on previous versions of Title 24), future documents, such as the Multimodal Mobility Plan and the CAP, may use different data to forecast emissions and/or other sources of information (e.g., regional transportation models) to assess GHG emissions in the City. Given this possibility, it would be inappropriate to assign a definite, quantitative GHG emissions reduction associated with the implementation of Mitigation Measures GHG-1A to GHG-1E.

Second, given the aggressive nature of Mitigation Measures GHG-1A through GHG-1E, it is unclear at this time if the City would be able to achieve the performance standards identified in the mitigation measures, in the timeframes allotted. Though the City would make the best attempt possible to implement the measures as expeditiously as possible, the City is currently and may continue to be constrained by staffing and resources. As such, it may take longer than anticipated to identify the specific strategies that would achieve the ambitious goals laid out in the mitigation measures. Furthermore, it's unclear at this time if adopting some of the provisions imbedded in Mitigation Measures GHG-1B through GHG-1E are feasible for the City to implement. For example, with regard to adopting a ZNE ordinance, the CEC identified in its May 20, 2017 staff workshop on the 2019 building efficiency standards ZNE strategy that ZNE was not a cost-effective standard for the 2019 Title 24 Building Code update, because, as the electric grid becomes greener in the future, rooftop PVs will have diminished carbon reduction benefits. In order to achieve ZNE, the electrification of homes will have to be coupled with grid harmonization strategies, such as consumer owned storage. As of the CEC's workshop in 2017, customer owned storage was still too expensive to be cost effective for the 2019 Title 24 standards (CEC 2017). In addition, strengthening such an ordinance to ban natural gas would be inconsistent with City Council Resolution No. 2019-036, and may be precluded under Federal law.[11]

Finally, based on calculations that have been provided for informational purposes only, estimated GHG emission reductions associated with the ZNE ordinance and Multimodal Mobility Plan would total approximately 172,477 $MTCO_2e$.[12] This would reduce the GPU Planning Area's GHG emissions during Year 2040 to approximately 548,322 $MTCO_2e$ and result in an efficiency of 3.5 $MTCO_2e/SP$, which is still 1.1 $MTCO_2e/SP$ higher than the SCAQMD interpolated efficiency threshold of 2.4 $MTCO_2e/SP$.

Under Mitigation Measures GHG-1A through GHG-1E, the City would aggressively target GHG emissions generated from newly proposed development, plan for transportation infrastructure that would benefit both existing and new development, and take an adaptive management approach for addressing GHG emissions in the City, based on current and anticipated conditions over the next couple of decades. Nonetheless, since the reductions attributable to Mitigation Measures GHG-1A through GHG-1E cannot be definitively assessed at this time, this impact would be **significant and unavoidable**.

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[11] The City of Berkeley, the first city in the nation to ban natural gas in new development, is currently being sued by the California Restaurant Association for adopting such an ordinance. The lawsuit alleges, "Prohibiting natural gas cooking ranges, water heaters, fireplaces, space heaters, and backup electrical generation is fundamentally inconsistent with the public interest, and is a violation of both federal and state law."

[12] An estimated GHG emission reduction attributable to Mitigation Measure GHG-1B has not been provided, because the renewable mix in DCE's Desert Saver Option (i.e., 35%) is currently lower than the mix SCE would be required to provide by 2030 (i.e., 60%). Though it is anticipated DCE's renewable mix would surpass the RPS mandated mix moving forward, it is unknown what this value would be for Year 2040. Thus, it is conservatively assumed the Planning Area's renewable energy mix would meet the current, minimum requirements of the RPS standards, which do not any legislative mandate to improve past Year 2030.

B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?

Impact GHG-2: The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emission of greenhouse gases.

<u>*Analysis of Impacts*</u>

CARB Scoping Plan

As discussed under Section 4.8.2, the 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among State, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. The major elements of the 2017 Climate Change Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal, are listed in Section 4.8.2. Nearly all of the specific measures identified in the 2017 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. The Project, therefore, would have limited ability to directly conflict with any of the specific measures identified in the 2017 Climate Change Scoping Plan. Nonetheless, the overarching goal of the 2017 Climate Change Scoping Plan is to achieve a 40% reduction in GHG emissions below 1990 levels by the Year 2030. To achieve this statewide goal, the 2017 Climate Change Scoping Plan recommends a statewide efficiency metric of six metric tons per capita by 2030 and two metric tons per capita by 2050. These statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State. Under an unmitigated scenario, implementation of the proposed General Plan is estimated to result in GHG emission efficiency of 5.3 $MTCO_2e$ per capita.[13] Project growth would result in emissions that exceed the 2017 Climate Change Scoping Plan adjusted statewide 2040 metric of four $MTCO_2e$ per capita employed for this EIR.[14] To meet the interpolated CARB Scoping Plan efficiency target of four $MTCO_2e$ per capita, the City would need to reduce its GPU Year 2040 GHG emissions presented in Table 4.8-5 approximately 175,191 $MTCO_2e$ to meet this target.

SCAG 2016 RTP/SCS

As described in Section 4.11, Table 4.11-2, the proposed Project would be consistent with the goals of the 2016 RTP/SCS. Nonetheless, the primary goal of SCAG's RTP/SCS is to reduce emissions by 8 percent per capita by 2020, 18 percent per capita by 2035, and 21 percent per capita by 2040, relative to 2005 levels. This level of reduction would meet and exceed the region's GHG targets set by CARB (8 percent per capita by 2020 and 13 percent per capita by 2035). Table 4.8-7 (Transportation GHG Emissions and VMT Per Capita), below, compares the existing 2019 and 2040 VMT and transportation-related GHG emissions per capita in the Planning Area.

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[13] As shown in Table 4.8-5, the proposed General Plan is estimated to have an emissions level of approximately 720,799 $MTCO_2e$ in the Year 2040 under unmitigated conditions. Dividing through by the anticipated population of DHS and the sphere of influence in the Year 2040 (i.e., 136,402 people) results in an efficiency metric of approximately 5.3 $MTCO_2e$ per capita.

[14] The Project plans for growth through Year 2040. Therefore, the 2040 statewide efficiency metric is linearly derived from the State's 2030 (6 $MTCO_2e$ per capita) and 2050 (2 $MTCO_2e$ per capita) targets. The Project's per capita GHG emissions in 2040 would be approximately 6.2 $MTCO_2e$.

Table 4.8-7
Transportation GHG Emissions and VMT Per Capita

Metric	2019	2040 Growth	Percent Change
Population	48,550	136,402	+181%
Annual VMT[(A)]	463,047,434	1,640,381,960	+254%
Annual VMT per capita	9,538	12,026	+26%
Transportation GHG[(B)]	239,282	515,919	+116%
Transportation GHG per capita	4.9	3.8	-22%

Source: MIG 2019
(A) Obtained from CalEEMod outputs, see Appendix D.
(B) See Table 4.8-5.

As shown in Table 4.8-7, the Project would, in 2040, result in an approximately 26% increase in VMT per capita, but an approximate 22% reduction in transportation GHG per capita, as compared to 2019 conditions. 2005 conditions are not known, but are presumed to have a higher (i.e., less efficient) per capita consumption value than 2019 conditions. The VMT and transportation GHG emission estimates, as indicated before, are based on CalEEMod default trip generation rates and distances, which do not take into account land use interactions or transit credits, and therefore provide a conservative assessment of VMT and transportation related GHG emissions in the Planning Area. Although the GPU, under default CalEEMod estimated conditions, would result in a per capita transportation GHG emission reduction that would exceed the 2035 goals identified by CARB, the GPU under an unmitigated condition would be inconsistent with the SCAG 2016 RTP/SCS.

The GPU under an unmitigated scenario would be inconsistent with the SCAG 2016 RTP/SCS, because the growth envisioned in the GPU exceeds the growth envisioned in the SCAG 2016 RTP/SCS. The SCAG Regional Travel Demand Model (used for the SCAG 2016 RTP/SCS) utilizes methodologies, parameters, and inputs that reflect travel conditions (e.g., existing and anticipated roadways networks) and demographics (e.g., socioeconomic data). As shown in Table 4.3-7 of the Air Quality Section, the GPU's growth far exceeds the growth assumptions contained in the SCAG 2016 RTP/SCS. Since the growth envisioned in the GPU is inconsistent with the conditions under which the SCAG 2016 RTP/SCS was developed, the additional, transportation-related GHG emissions generated as a result of GPU implementation would exceed that considered during development of the SCAG 2016 RTP/SCS. As such, the overall, per capita transportation GHG emission reductions that would need to be achieved by the GPU would have to far exceed those originally identified for the region by CARB (i.e., more growth in the GPU means more emissions, therefore a greater reduction would have to occur in the city for the per capita transportation GHG emissions to meet the same mass emissions benchmark).

City of Desert Hot Springs Climate Action Plan

As discussed under Section 4.8.2, the City's CAP sets GHG emissions reduction target of approximately 36 percent below baseline 2010 levels by 2020, an annual 2020 target of approximately 64,047 $MTCO_2e$. The GHG emission estimation methodologies used in the CAP and this EIR differ, and are not directly comparable.

As shown under Section 4.8.2, the GPU contains numerous policies that are consistent with the CAP and the proposed General Plan's planned type of growth is consistent with the CAP's policies. For example, the CAP calls for improving building efficiency (e.g., CAP Measures BUILD-2, BUILD-4, BUILD-9, etc.), decreasing the number of gasoline- and diesel-powered vehicles on the roadway (e.g., CAP Measures MOBILITY-1, MOBILITY-2, MOBILITY-6, etc.), reducing the quantity of potable water used (e.g., CAP Measures LIVE-2, LIVE-3, WORK-9, etc.), and increasing the amount of waste diverted from the landfill (e.g., CAP Measures LIVE-13 and LIVE-14). The implementing policies contained in the GPU related to GHG emissions in the city, which would be reinforced through the implementation of Mitigation Measures GHG-1B through GHG-1E, demonstrate the City's commitment to advancing the goals and intent of the CAP. Nonetheless, in general, the Project could conflict with the City's CAP for several reasons. First, as shown in Table 4.8-5, the total, mass amount of GHG emissions occurring with Project growth in 2040 would be approximately 201% greater than current 2019 conditions (as estimated in this EIR). This increase is not line with the CAP's aspirational goal to reduce GHG emissions to 1990 levels by 2020. Second, the Project's emissions would generally occur post-2020, beyond the CAP's horizon planning year of 2020. Finally, the total amount of growth envisioned in the GPU far surpasses that accounted for in the CAP. Whereas the CAP anticipated a growth rate of approximately 83 percent between 2010 and 2020, the GPU anticipates a population growth of almost three times than what exists in the year 2019 (which is anticipated to be more than what existed in 2010 but less than the anticipated CAP growth in 2020 due to the Great Recession).

Since the Project would permit potentially higher levels of growth than currently planned for in the City's CAP, it would be inconsistent with the CAP until such time as the City revises its CAP.

Level of Significance Before Mitigation

As discussed above the GPU's unmitigated GHG emissions would: 1) not be consistent with the CARB Scoping Plan's interpolated per capita GHG efficiency metric, 2) would not meet the SCAG 2016 RTP/SCS goal of reducing per capita passenger vehicle greenhouse gas emissions, based on the emissions modeling conducted, and 3) would be inconsistent with the City's CAP. This is considered a **potentially significant** impact.

Mitigation Measures

See Mitigation Measures GHG-1A through GHG-1E.

Level of Significance After Mitigation

CARB Scoping Plan

As discussed under Impact GHG-1 the proposed Project would be required to implement Mitigation Measures GHG-1A through GHG-1E, which would reduce GHG emissions in the city. However, the specific quantity of those reductions cannot be definitively quantified at this time, since the City's detailed strategy has not yet been developed. Even under the estimated GHG emission reductions that have been provided for informational purposes, total reductions attributable to the ZNE ordinance and Multimodal Mobility Plan would only achieve approximately 172,477 $MTCO_2e$; approximately 2,714 $MTCO_2e$ less than what would need to be achieved for the Project to meet the interpolated GHG emissions efficiency metric of four $MTCO_2e$ per capita. Though it is anticipated these additional emission reductions would be achieved through the implementation of Mitigation Measures GHG-1A and GHG-1E, these additional reductions cannot be demonstrated at this time. Therefore, the GPU would conflict with the overarching goal of the CARB Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal and set the State's course for meeting additional, future GHG emission reduction goals.

SCAG 2016 RTP/SCS

Consistent with Mitigation Measure GHG-1D, the City would be required to develop a Multimodal Mobility Plan that demonstrates growth in the city would be consistent with the latest per capita passenger vehicle GHG emission reductions established by CARB for the SCAG MPO under SB

375. By demonstrating the city's per capita passenger vehicle GHG emissions would be consistent with the reductions called for under SB 375, the Multimodal Mobility Plan, an implementing policy of the GPU, would demonstrate consistency with the SCAG 2016 RTP/SCS.

City of Desert Hot Springs Climate Action Plan
Consistent with Mitigation Measure GHG-1E, the City would be required to develop a new, qualified CAP; however, until the revised CAP is adopted, the proposed General Plan would be inconsistent with the existing CAP.

Conclusion
The Project would be required to implement Mitigation Measures GHG-1A through GHG-1E, which would reduce GHG emissions in the city. Though it is anticipated the Project would be able to reduce future GHG emissions in line with state-, regional-, and local-plans, the specific GHG emission reductions attributable to the mitigation measures cannot be definitively quantified at this time. Thus, the GPU would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emission of greenhouse gases. This impact would be **significant and unavoidable.**

C. Would the project cause substantial adverse cumulative impacts with respect to greenhouse gases?

Analysis of Impacts

As stated in Section 4.8.4, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2, the Project would result in GHG emissions that exceed the significance thresholds applied in this EIR and conflict with the 2017 Climate Change Scoping Plan and City CAP.
Level of Significance Before Mitigation

Potentially Significant.

Mitigation Measures

See Mitigation Measures GHG-1A through GHG-1E.

Level of Significance After Mitigation

Significant and Unavoidable.

4.8.5 References

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List of Acronyms, Abbreviations, and Symbols

Acronym, Symbol, Abbreviation	Description
°F	Degrees Fahrenheit
AB	Assembly Bill
ACC	Advanced Clean Cars
BAU	Business-As-Usual
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CFC	Chlorofluorocarbon
C_H4	Methane
CNRA	California Natural Resources Agency
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CVAG	Coachella Valley Association of Governments
DCE	Desert Clean Energy
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric Vehicle
GHG	Greenhouse Gases
GPU	General Plan Update
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
IAQ	Indoor Air Quality
kBtu	kilo-British Thermal Units
kWh	kilo-Watt hours
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
MPO	Metropolitan Planning Organization
$MTCO_2e$	metric tons of CO_2 equivalents
N_2O	Nitrous Oxide
PFC	Perfluorocarbon
ppm	parts per million
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable communities Strategy
SF_6	Sulfur Hexafluoride
SP	Service Population
TDM	Transportation Demand Management
TTPS	Transportation Project Prioritization Study

Acronym, Symbol, Abbreviation	Description
U.S. EPA	United States Environmental Protection Agency
VOR	Vehicle Occupancy Rate
Working Group	SCAQMD GHG Significance Threshold Working Group
ZEV	Zero Emission Vehicle
ZNE	Zero Net Energy

4.9 – Hazards and Hazardous Materials

This section discusses whether implementation of the General Plan Update (GPU) could result in substantial adverse environmental impacts due to transportation, use and disposal of hazards and hazardous materials. This section addresses the regulatory framework necessary to evaluate specific impacts resulting from the GPU.

4.9.1 Environmental Setting

The Hazards and Hazardous Materials section of the Program EIR describes the existing conditions related to hazardous materials, wildfires and airport hazards in the Planning Area, as summarized below.

Hazardous Materials and Wastes
Hazardous materials range from simple household paint to highly toxic industrial chemicals. Hazardous wastes range from used motor oil to post-production manufacturing wastes. The primary difference between hazardous materials and hazardous wastes is that hazardous materials are produced for specific uses whereas hazardous wastes are the byproducts of various processes. Hazardous materials are classified based on the form of hazard(s) they pose, namely flammable, combustible, poisonous, and/or radioactive. Hazardous wastes are classified by the United States Environmental Protection Agency (EPA) through a listing process and are classified by the type of hazard(s) they pose, similar to hazardous materials. Hazardous wastes may be ignitable, corrosive, reactive, toxic, or radioactive.

The Federal Motor Carrier Safety Administration (FMCSA) maintains the National Hazardous Materials Route Registry that identifies roadways that are restricted, designated, and preferred for transporting hazardous materials. Vehicles carrying hazardous materials are required to have placards that indicate the chemicals being carried by identifying whether they are corrosive, flammable or explosive. Drivers are required to carry detailed “material data sheets” for each substance on board. These documents are designed to help emergency response personnel assess the situation upon arrival at the scene of an accident and take appropriate measures. The California Highway Patrol is in charge of spills that occur on freeways, and local sheriffs and fire departments are responsible for providing enforcement and routing assistance.

Table 4.9-1, Resources Conservation and Recovery Act (RCRA) Facilities, shows where in the Planning Area these transporters, large quantity generators, or small quantity generators are located.

Table 4.9-1
RCRA Facilities

Facility Name, Address	Location	Type Facility
Alonzo Nesbitt	66733 Thunderbird Ln	Transporter
AutoZone #2877	12660 Palm Dr	Transporter
Aqua King Inc	69100 20th Ave	SQG
Bob's Auto & Light Truck Repair	65180 Dillon Rd	Transporter
Chevron 303836	22600 Palm Dr	LQG
Chevron Station 99219	Palm Dr	SQG
Chevron Station 202223	13900 Palm Dr	SQG
Circle K Store 314	12350 Palm Dr	Unspecified
CPV Sentinel Energy Project	62575 Power Line Rd	LQG
Desert Garage	66465 Flora	SQG
Desert Stage Lines	65100 San Jacinto	SQG
Dollar General #13379	13721 Palm Dr	Transporter
Dons Automotive	15775 Palm Dr	SQG
Kmart #4857	14011 Palm Dr	Transporter
Mission Lakes Country Club	64776 Sanderling Cr	Transporter
O'Reilly Auto Parts #3082	13310 Palm Dr	Transporter
Rite Aid #5679	12900 Palm Dr	SQG
Sam's Family Spa	70875 Dillon Rd	Transporter
Spectrum Custom Design, Inc.	65242 San Jacinto Ln	SQG
Stater Bros. Markets #84	13200 Palm Dr	Transporter
Vons Store No 2177	14200 Palm Dr	LQG
Vons Fuel Station #2177	14030 Palm Dr	Transporter
Walgreens #5037	14001 Palm Dr	Conditionally Exempt SQG
Western Golf Car Manufacturing Inc	69391 Dillon Rd	SQG
Winston Tire	14010 Palm Dr	SQG
Source: USEPA Envirofacts, RCRAInfo Overview, August 2019		

Airports and Heliports

There is one heliport located within the Planning Area; the Devers Substation Heliport (91CA) located at 62030 16th Street (North Palm Springs) at the northeast corner of Power Line Road and Diablo Road in the southwest portion of the Planning Area. This is a private use heliport owned by Southern California Edison. According to AirNav (2019), 91CA is 20 FT by 20 FT with an asphalt surface. There are no airports or private airstrips located within or near the Planning Area and no portion of the Planning Area is located within the influence area of any airport.

Wildland Urban Interface

In Riverside County, wildland fires historically have occurred in the brush-covered hills that frame many communities. The California Department of Forestry and Fire Protection prepares maps that identify Very High Fire Hazard Severity Zones. The maps show that a small portion of the northern part of the City much of Desert Hot Springs has a "very high" fire hazard. Much of the hills surrounding the City are designated as having a high or very high fire hazard. However, these hills contain sparse vegetation, which limit the risk of a wildfire's ability to spread (General Plan

Update, Safety and Noise). Fire hazard mapping is utilized in the building codes for areas located within the Wildland Urban Interface (WUI) and requirements for defensible space clearing.

4.9.2 Regulatory Framework

Federal

U.S. Environmental Protection Agency (EPA): Regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA, see below); and integrating the Federal Clean Water Act and Clean Air Act into California Legislation.

- **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** Adopted in 1980, CERCLA was developed to remove contamination of water, air, and land resources from past chemical disposal practices. Also known as the "Superfund Act," CERCLA contains a list of sites referred to as Superfund sites, where there is an imminent threat to human health. CERCLA collects taxes from the chemical and petroleum industries to clean abandoned or uncontrolled hazardous sites using short term and long-term responses techniques. *According to US EPA, there are no superfund sites within the Planning Area.*
- **The Resources Conservation and Recovery Act (RCRA):** Federal law that regulates hazardous wastes from a 'cradle-to-grave' approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal, and waste generators are required to report use or transport of hazardous wastes to the EPA. Hazardous waste generators range from small producers such as dry cleaners and automobile repair facilities to larger producers such as hospitals and manufacturing operations. The EPA categorizes Small Quantity Generators (SQG) as those facilities that produce between 100 and 1,000 kilograms (kg) of hazardous waste per month. Facilities producing less than 100 kg of hazardous waste per month are not subject to RCRA. Large Quantity Generators (LQG) produce 1,000 kg or more hazardous waste per month. LQG and SQG facilities are subject to the storage and transportation requirements of RCRA.
- **The Federal Emergency Planning and Community Right-To-Know Act (EPCRA):** Enacted to inform communities and residents of chemical hazards in their area, this Act requires the US EPA maintain and publish a list of toxic chemical releases, known as the Toxic Release Inventory (TRI). Facilities required to report include industrial uses that manufacture, process, or use significant amounts of chemicals. Reporting includes types and amounts of chemicals that are released each year into the air, water, and land or transferred off-site. Listing as a TRI facility doesn't necessarily mean that releases are harmful to humans or the environment.

Federal Occupational Safety and Health Administration (OSHA): Establishes and enforces Federal regulations related to health and safety of workers exposed to toxic and hazardous materials. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations.

U.S. Department of Transportation (DoT): Regulates the shipment of hazardous material. DoT also administers the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify conflicting state, local, and federal regulations. HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous (along with EPA) when they pose unreasonable risks to health, safety, or property.

Standardized Emergency Management System and National Incident Management System (SEMS): According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander. Additional information regarding the City's SEMS program can be found in Section 4.15 (Public Services).

State

California Occupational Safety and Health Administration (CalOSHA): Responsible for promulgating and enforcing State health and safety standards and implementing Federal OSHA Laws. For example, CalOSHA's regulatory scope includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

California Environmental Protection Agency/Office of Emergency Services (CalEPA/OES): Cal/EPA establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil. OES coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

California Fire Code: The City of Desert Hot Springs has adopted the 2016 California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency 'Very High Fire Hazard Severity Zone' or within a State Responsible 'Moderate', 'High', or 'Very High Fire Hazard Severity Zone'.

California Department of Toxic Substances Control (DTSC): DTSC regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public that could potentially be exposed to listed carcinogens. EnviroStor is DTSC's data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. There are no open investigations in the Planning Area (DTSC Envirostor).

California Highway Patrol (CHP): CHP has primary regulatory responsibility for the transportation of hazardous wastes and materials.

Cortese List: California Government Code Section 65962.5 established the "Cortese List", which requires state agencies to compile a list of all properties affected by hazardous waste and develop a framework for how they will continue to be monitored and addressed by the State. A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). This statute was enacted over 20 years ago, and some of the provisions refer to agency activities that are no longer being implemented and in some cases the information to be included in the Cortese List does not exist. Those agencies and tracking activities that still exist are detailed in the following paragraphs.

Local

Regional Water Quality Control Board (RWQCB): One of nine regional boards in the State, the Colorado River Regional Water Quality Control Board (RWQCB) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the Waters of the State. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination.

Riverside Airport Land Use Commission: The main goal of the Airport Land Use Commission (ALUC) is to protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to extensive noise and safety hazards within areas around airports

South Coast Air Quality Management District (SCAQMD). The SCAQMD regulates the demolition of buildings and structures that may contain asbestos. The SCAQMD is vested with the authority to regulate airborne pollutants through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or abatement work.

Riverside County Fire Department/CalFire: Riverside County Fire Department has a cooperative agreement with CalFire to bring Fire and Emergency services to the City. The Riverside County Fire Department also operates the Community Emergency Response Team (CERT) program. The Program trains and certifies members of the public in basic emergency response and organizational skills, including light fire suppression, hazardous materials awareness, first aid, light search and rescue techniques, and disaster response assistance.

Riverside County Department of Environmental Health Hazardous Materials Branch (HMMB): The HMMB regulates and oversees the inspections of constructions, repairs, upgrades, system operation and removal of underground storage tank (UST) systems and is the Certified Unified Program Agency (CUPA) for Riverside County. The HHMB requires a business plan to be prepared, submitted, and implemented by any business handling hazardous materials or a mixture containing a hazardous material. The HHMB requires business plans for all hazardous waste generators, regardless of quantity generated, and for any business that uses quantities of hazardous materials, including insecticides, fungicides, rodenticides, and Class I explosives. These required business plans are used by responding agencies in the event of a release to allow for a quick and accurate evaluation of each situation.

Businesses that handle hazardous materials are required to verbally report any release or threatened release if there is a reasonable belief that the release poses a significant present or potential hazard to human health and safety, property, or the environment.

Riverside County Emergency Management Department (EMD): The Riverside EMD has adopted Resolution 2019-006 Riverside County Local Hazard Mitigation Plan which states that the Riverside County EMD forwards the Hazard Mitigation Plan to California Emergency Management Agency and Federal Emergency Management Agency on behalf of the City of Desert Hot Springs. The City Manager is the appointed agent for the City of Desert Hot Springs (Desert Hot Springs Hazard Mitigation Plan).

Environmental Site Assessment (ESA) Procedures. A Phase I ESA is the initial investigation phase of a process established by the American Society for Testing and Materials Standards (ASTM), as adequate due diligence by new purchasers of properties or their lenders prior to site development. Phase I ESAs must be completed prior to property development by private parties to establish that the buyer has exercised due diligence in purchasing the site. If a Phase I ESA indicates evidence of site contamination, a Phase II ESA would be required prior to site development. The Phase II ESA includes collection of original samples of soil, groundwater, or building materials to measure and analyze quantities of various contaminants. The most frequent substances tested for are petroleum hydrocarbons, heavy metals, pesticides, solvents, asbestos, and mold. Appropriate cleanup levels for each contaminant, based on current and planned land use, would be determined in accordance with professional procedures adopted by the lead agency (e.g., DTSC, RWQCB, SCAQMD, CUPA).

County of Riverside Multi-Hazard Functional Plan (1998): The Riverside Emergency Plan addresses the planned response to extraordinary emergency situations associated with natural and human caused disasters, technological incidents and national security operations. Individuals and departments assigned emergency responsibilities within this plan will have prepared appropriate supporting plans and related Standard Operating Procedures.

City of Desert Hot Springs Emergency Operations Plan 2007 (EOP): The EOP is designed to establish the framework for implementation of the California SEMS for Desert Hot Springs. The Plan is intended to facilitate multi-agency and multijurisdictional coordination particularly between the City and Riverside County.

Desert Hot Springs General Plan: The Safety and Noise and Land Use and Community Design, Open Space and Mobility Elements of the the General Plan Update addresses hazards and hazardous material resources. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to hazards and hazardous materials, spills and accidents, and wildfires are addressed in the following elements: Land Use and Community Development, Mobility and Infrastructure, Open Space and Safety and Noise, and Health and Wellness. Several policies are identified in these Elements to maintain and enhance the safety and wellness of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-9.5: Public Safety Siting
- Policy LU-11.5: Flood Control
- Policy MI-11.9: Flood Prevention
- Policy OS-1.16: Consult with Flood Control Agencies
- Policy SN-1.5: Vehicle Access
- Policy SN-1.9: Onsite Wildfire Prevention Measures.
- Policy SN-3.1: Hazardous Materials Discharge
- Policy SN-3.2: Use and Storage of Hazardous Materials
- Policy SN-3.3: Hazardous Waste Siting
- Policy SN-3.4: Hazardous Waste Generation
- Policy SN-3.5: Phase I Site Assessment
- Policy SN-3.6: Consultation
- Policy SN-3.8: Permitting
- Policy SN-3.9: Permitting Process
- Policy SN-3.10: Minimize Exposure
- Policy SN-6.1: Alquist-Priolo Act
- Policy SN-6.2: Seismic Standards

- Policy SN-6.3: Seismic Review
- Policy SN-6.4: Geotechnical Studies
- Policy SN-6.5: Fault Zone
- Policy SN-6.6: Utilities and Vital Service Providers
- Policy SN-6.8: Local Hazard Mitigation Plan
- Policy SN-7.3: Coordination
- Policy SN-7.4: Master Drainage Plan

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.9.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

H. Would the project cause substantial adverse cumulative impacts with respect to hazards and hazardous materials?

4.9.4 Environmental Impacts

A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous materials and wastes will be routinely transported, used, and disposed of within the Planning Area. The transport, use, and disposal will range from hazardous materials used for manufacturing processes to common household hazardous wastes (HHW) such as paint and used motor oil. The use, transportation, and disposal of hazardous materials and wastes has varying degrees of risk depending on the type and quantity of the material or waste. Spills of

HHWs can result in minor environmental contamination to soil, air, or water. Releases of toxic chemicals from industrial facilities pollute the air and may have immediate and adverse health effects on workers or residents in the vicinity. A common means of accidental release occurs when a vehicle transporting hazardous wastes or materials is involved in a collision, and the wastes are spilled. CHP ensures that shipping and transportation of hazardous materials is safe, and response is coordinated in case of an accident. More information on accidents is covered in section 4.9.4.B below.

According to U.S. EPA's Envirofacts website, as of August 2019, there are 25 active hazardous waste handlers in the Planning Area that include 10 SQGs, with one conditionally exempt SQG, three LQG, one that is unspecified, and 10 registered transporters of hazardous waste. See table 4.9-1, RCRA Facilities, for a list of hazardous waste generators and transporters in the City.

As of November 2012, there are no TRI facilities in the Planning Area; however, one facility is permitted by the SCAQMD pursuant to the Clean Air Act (EPA ICIS Air). The Air Facility System (AFS) manages stationary source air program compliance and enforcement information. The CPV Sentinel LLC located at 62575 Power Line Road is currently temporarily closed and therefore is not emitting any criteria pollutants. Since permitted in 2008, this facility was not found out of compliance with permit requirements. According to Geotracker, there are no open UST sites in the Planning Area.

The General Plan Update proposed policies (including Policy SN-3.2: Use and Storage of Hazardous Materials) ensure that hazardous materials and wastes users and producers use, transport, and dispose of materials and wastes in accordance with State and Federal regulations. These policies reduce the potential for significant injury or environmental damage associated with the use, transport, and disposal of materials and wastes by identifying and monitoring materials and wastes handlers and users through multi-jurisdictional cooperation and ensuring adherence to all applicable regulations. Additionally, will require the general location and siting of facilities which involve the use and/or storage of hazardous, highly flammable, or explosive materials to be designed in a manner that assures the highest level of safety in strict conformance with fire codes and all other applicable codes and regulations.

The City will ensure proper permitting of hazardous materials storage, use and disposal with RCFD and appropriate County, State, and Federal agencies. The City will continue to educate the community regarding the safe use and disposal of household hazardous wastes. Continued enforcement of Federal and State law combined with consultations with Federal, State, and County agencies, potential hazards associated with hazardous materials and wastes will be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Hazardous materials and wastes are heavily regulated and monitored by State and Federal law. These existing regulations are adequate safeguards for preventing, responding to and remediating accidental releases of hazardous materials and wastes.

With increased construction to accommodate for proposed population growth and development, there in an increased risk for large scale accidents involving the transportation of hazardous materials or wastes that can result in extensive clean-up efforts at significant cost. Primary routes within and near the Planning Area where transport of hazardous materials or wastes could occur include State Route 62 and Interstate 10. Other major arterials may also be utilized to transport materials and wastes from within the Planning Area to Interstate 10 and State Route 62, such as Pierson Boulevard, Palm Drive, Indian Avenue, and Dillon Road.

GPU policies are designed to ensure that hazardous materials and wastes, their transport, and disposal are in accordance with State, Federal and local regulations. The City will implement a hazardous materials discharge policy (Policy SN-3.1) to prevent unauthorized discharges of hazardous materials and promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials. Additional policies will minimize exposure of critical facilities and residences to hazardous materials in case of an accident (Policy SN-1.9: Onsite Wildfire Prevention Measures, Policy SN-3.1: Hazardous Materials Discharge).

Furthermore, reduction and reuse of waste is promoted in order to reduce the need for transportation and disposal of wastes. With continued enforcement of existing regulations and implementation of the goals and policies of the proposed GPU, potential hazards associated with the use, transport, disposal, and release of hazardous materials and wastes will be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Future schools will likely need to be built to accommodate proposed growth in the Planning Area. General Plan Update Policy SN-3.4 will discourage the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school. Proposed projects, including schools, under the GPU, are required to complete Environmental Site Assessments to determine if hazardous materials are present in the area (Policy SN-3.7: Phase I Site Assessment, Policy SN-3.6: Consultation).

Through this existing planning process, impacts involving manufacture, use, transport, storage or disposal of hazardous substances and wastes near a school or sensitive receptor will be considered. Mitigation shall be incorporated into any project that may expose sensitive receptors to hazardous materials or waste to avoid or minimize health impacts, and the City would be required to make specific findings to document that consideration. As such, the impact would be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Planning Area contains does not contain any hazardous materials sites on the Cortese List (DTSC 2019). Construction of new facilities may warrant inclusion on a list pursuant to Government Code section 65962.5, but any such projects will be permitted separately. The GPU includes no plans to build a facility in the future that would be included on this type of list.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Planning Area is not located within two miles of a public airport nor is the Planning Area located within an Airport land use plan. The project implementation does not result in a safety hazard or excessive noise for people in the project area. The closest commercial airport, Palm Springs International, is approximately 10 miles to the south of the City of Desert Hot Springs. The project would not result in a safety hazard and there will be no excessive noise generated.

Level of Significance Before Mitigation:

No impact.

Mitigation Measures:

No mitigation is required.

F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Access to the City in the event of a major disaster is critical for the delivery of emergency personnel and supplies. Access to the community may be impacted by natural and human-made barriers, and each major ground route in the area is potentially subject to significant damage from earthquakes and flooding. If Interstate 10 overpasses are damaged, access to the City could be significantly affected. As an alternative means of access to the City and the upper Coachella Valley, the Palm Springs Airport provides airplane and helicopter services and is located 15 minutes from Desert Hot Springs. There is also a heliport located immediately northwest of the Pierson Boulevard Fire Station.

The City and County have adopted Hazard Mitigation Plans and participate in the Riverside County Multi-Hazard Mitigation Plan, which addresses an expansive set of emergency functions covering Operational Area Emergency Management (Section 1.6.2), Resources (1.7) and support operations law enforcement and traffic control, as well as hazardous materials release, flooding, wildfire and earthquake responses (Appendices 1-1 to 1-8). The Plan guides decision-makers as they commit resources to reducing the effects of natural and other hazards.

The City also has a detailed Emergency Operations Plan (EOP) which provides the basis for the City's emergency planning. The objective of the EOP is to incorporate and coordinate all facilities and personnel of the City into an efficient organization capable of responding to any emergency. Section 5 of the EOP outlines the Mutual Aid System, section 7 covers Preparedness including training and increasing readiness. The Emergency Operations Plan Section 8 covers Response Phase Operations including communications and public information.

Implementation of the GPU would not impair implementation or physically interfere with an emergency plan, as each project would be reviewed for interference with emergency operations upon approval.

Level of Significance Before Mitigation:

Less than Significant.

Mitigation Measures:

No mitigation is required.

G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The City has incorporated special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exists, specifically areas of hilly areas with slopes of 10 percent or greater, areas with access problems, lack of water or excessively dry brush (See Section 4.20 Wildfire).

Desert Hot Springs' municipal code section 17.08 incorporates defensible space clearing requirements. Increased development occurring in the Wildland Urban Interface (WUI) could stress fire department resources. As stated in Section 4.15 Public Services, Riverside County Fire (RCFD) has identified a need for a fire station along the southern portion of the City near industrial uses, with equipment to accommodate taller industrial buildings. Any new fire station will need permanent funding, in addition to impact fees collected during the planning period to pay for the development of the station(s).

Further information regarding wildfire can be found in sections 4.20 Wildfire, and 4.15 Public Services.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

H. Would the project cause substantial adverse cumulative impacts with respect to hazards and hazardous materials?

The General Plan Update policies listed in section 4.9.2 Regulatory Framework are designed to ensure that hazardous materials and wastes users and producers use, transport, and dispose of materials and wastes in accordance with State and Federal regulations. These goals and policies reduce the potential for significant injury or environmental damage associated with the use, transport, and disposal of materials and wastes by identifying and monitoring materials and wastes handlers and users through multi-jurisdictional cooperation and ensuring adherence to all applicable regulations.

No cumulatively considerable contribution to a significant cumulative impact has been identified.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

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4.10 – Hydrology and Water Quality

This section describes hydrology and water quality impacts associated with implementation of the General Plan Update (GPU). The existing environmental setting is described, the potential for impacts are analyzed and identified.

4.10.1 Environmental Setting

Climate and Topography
The City of Desert Hot Springs has a desert climate with long, dry, hot summers with minimal rain during the winter months. The average annual precipitation is approximately six inches, with most of the rainfall occurring between November and March (Western Regional Climate Center, 2019).

The Planning Area is generally flat and gently sloping from northwest to southeast. The northwest corner of the Planning Area has an elevation of approximately 2,400 feet above mean sea level (AMSL) and descends to approximately 900 AMSL at the southeast corner. Isolated areas within or near the Planning Area are characterized by steeper terrain.

Surface and Groundwater
Watershed Characteristics. The Planning Area is located entirely within the Salton Sea watershed (also known as a Hydrologic Basin). A watershed is a region of land that surface water flows down until typically reaching a specific body of water.

The Salton Sea watershed is located within the larger Colorado River Basin Region, which is under the jurisdiction of the Colorado River Basin Regional Water Quality Control Board. The Colorado River Basin Region covers approximately 13 million acres including all of Imperial County and portions of San Bernardino, Riverside, and San Diego counties.

The Colorado River Basin Region is divided into seven Planning Areas based upon economic and hydrologic conditions. The Coachella Valley Planning Area, which Desert Hot Springs is located within, covers the central western portion of the region encompassing approximately 1,920 square miles and many small internal drainage basins. The San Bernardino and Little San Bernardino mountains form the northern boundary, the San Jacinto and Santa Rosa Mountains and Salton Sea form the western and southern boundaries. Elevations range from over 10,000 feet in the San Jacinto Mountains to 230 feet below sea level at the shore of the Salton Sea.

Groundwater. Both potable and hot spring waters are derived from the Coachella Valley Groundwater Basin. The basin stretches a distance of over 50 miles, from Banning to La Quinta and beyond. Within this basin, there are several sub-basins: San Gorgonio Pass, Indio, Desert Hot Springs, and Mission Creek. The General Plan Planning Area overlies three sub-basins – Indio, Desert Hot Springs, and Mission Creek. These groundwater sub-basins are shown in Exhibit 4.10-1.

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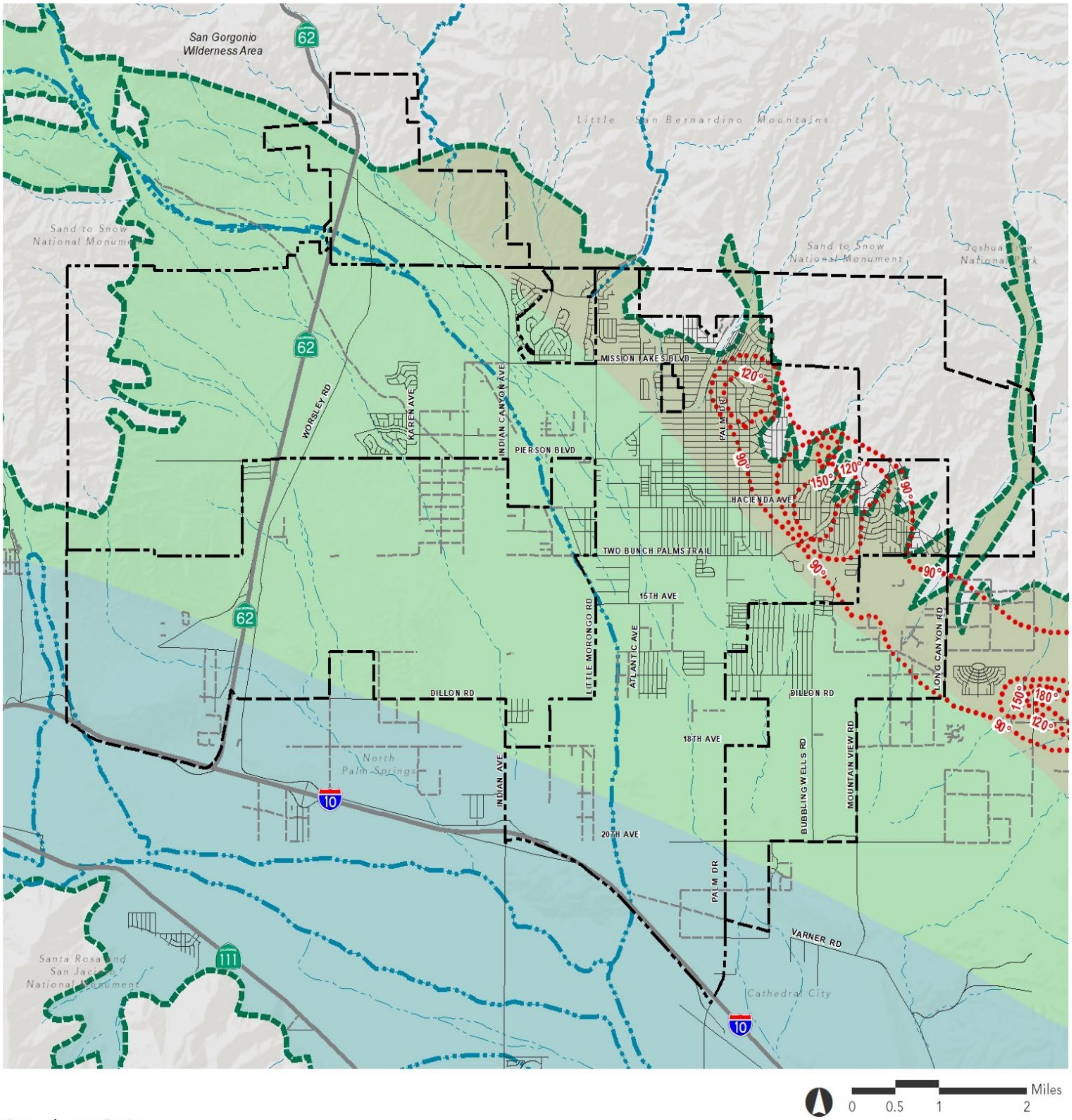

Groundwater Basins

Coachella Valley Groundwater Basin

Groundwater Subbasins

Desert Hot Springs

Mission Creek

Indio

Geothermal-Aquifer Water Contours

Base Map Features

City Boundary

Sphere of Influence

Water Courses

Sources: California Department of Water Resources, 2019; City of Desert Hot Springs, 2018.

Date: July 2019.

Exhibit 4.10-1: Groundwater Sub-basins

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Water is provided by multiple providers within the Planning Area. All providers also have contracts for “imported” State Water Project (SWP) water. The three water suppliers in the Planning Area are Desert Water Authority (DWA), Mission Springs Water District (MSWD) and Coachella Valley Water District (CVWD).

DWA serves the western portion of the Coachella Valley, including most of Palm Springs. The DWA was formed in 1961 to import water from the State Water Project in order to provide a reliable local water supply to its customers. DWA makes imported water available to MSWD for groundwater replenishment within MSWD's service area. Although DWA manages water supply in the Planning Area, it does not directly serve customers in the Planning Area.

CVWD serves the southeastern portion of the Planning Area, primarily south of Dillon Road. The CVWD potable water system consists of approximately 239 miles of water mains, 24 booster pumps in 11 stations, and 15 wells.

MSWD is the primary retail provider in the Planning Area. MSWD currently receives 100 percent of its water supply from the Upper Coachella Valley groundwater basin via District owned and operated wells. MSWD currently receives 100 percent of its water from groundwater production.

CVWD and DWA are remediating the overdraft condition of the groundwater in the Upper Coachella Valley by artificial replenishment with Colorado River water. As such, a portion of the groundwater that is withdrawn is replaced through this process.

Surface Waters. The City does not contain any permanent watercourses or bodies of water. During and following storm events, numerous drainages fill with water and flow in varying directions across the City. The majority of these watercourses drain to the southeast portion of the City. The most notable of these watercourses are Mission Creek from the west, Big Morongo Creek and Little Morongo Creek from the north, and the Whitewater River which skirts the southwestern edge of the Planning Area. Mission Creek and Big Morongo Creek merge in the northern portion of the Planning Area before they merge with Little Morongo Creek in the central portion of the City and then drain further to the southeast.

Recycled Water. Recycled water (reclaimed water) is wastewater that is treated to remove solids and certain impurities so that it can be reused. In most cases the highly treated water is sent back through the water system via separate pipes (i.e., purple pipes) for non-potable uses, primarily for landscape irrigation and industrial usage. Recycled water is a sustainable method to efficiently utilize water resources. MSWD is the primary water service provider in Desert Hot Springs. MSWD’s plans to expand its wastewater facilities include facilities to capture, process, and distribute recycled water throughout Desert Hot Springs for approved uses (MSWD 2019). Recycle water uses could include irrigation for parks, golf courses, and cannabis growers.

CVWD serves a small portion of the City, generally located south of Dillon Road and east of Little Morongo Road. CVWD does operate water reclamation facilities, but as of 2019, does not serve areas within the City.

Drainage and Flooding

Local drainage infrastructure is composed of a system of gutters, pipers, culverts, basins, and channels which carry storm water to regional drainage facilities. The Riverside County Flood Control and Water Conservation District (District) is responsible for the management of regional drainage. The District plans, constructs, and maintains drainage facilities that convey storm flows and protect properties against flooding. Exhibit 4.10-2 shows the location of flood hazards and flood control features in the Planning Area. The District and City initiated preparation of the West Desert Hot Springs Master Drainage Plan (WDHS MDP) to effectively manage flood hazards by providing storm water management/drainage conveyance. The WDHS MDP includes:

(1) regional flood-control improvements including:
   a. 10.6 miles of concrete slope lined earthen levee systems for Morongo Wash and Mission Creek;
   b. Removal of 2,829 acres of existing mapped flood hazards
   c. New all-weather bridges
   d. Floodplain management for Garnet Wash
   e. Three groundwater recharge basins
   f. Four urban water quality treatment basins

(2) local drainage facilities including:
   a. 37 different drainage systems,
   b. approximately 50 miles of local drainage facilities
   c. nine detention basins totaling 126 acres.

Flooding results from storm events that create volumes of rainwater that cannot be controlled by natural river channels and or absorption into permeable surfaces, thus flowing across the land and possibly inundating developed areas. The District is responsible for the planning, operation, and maintenance of flood control facilities within the City.

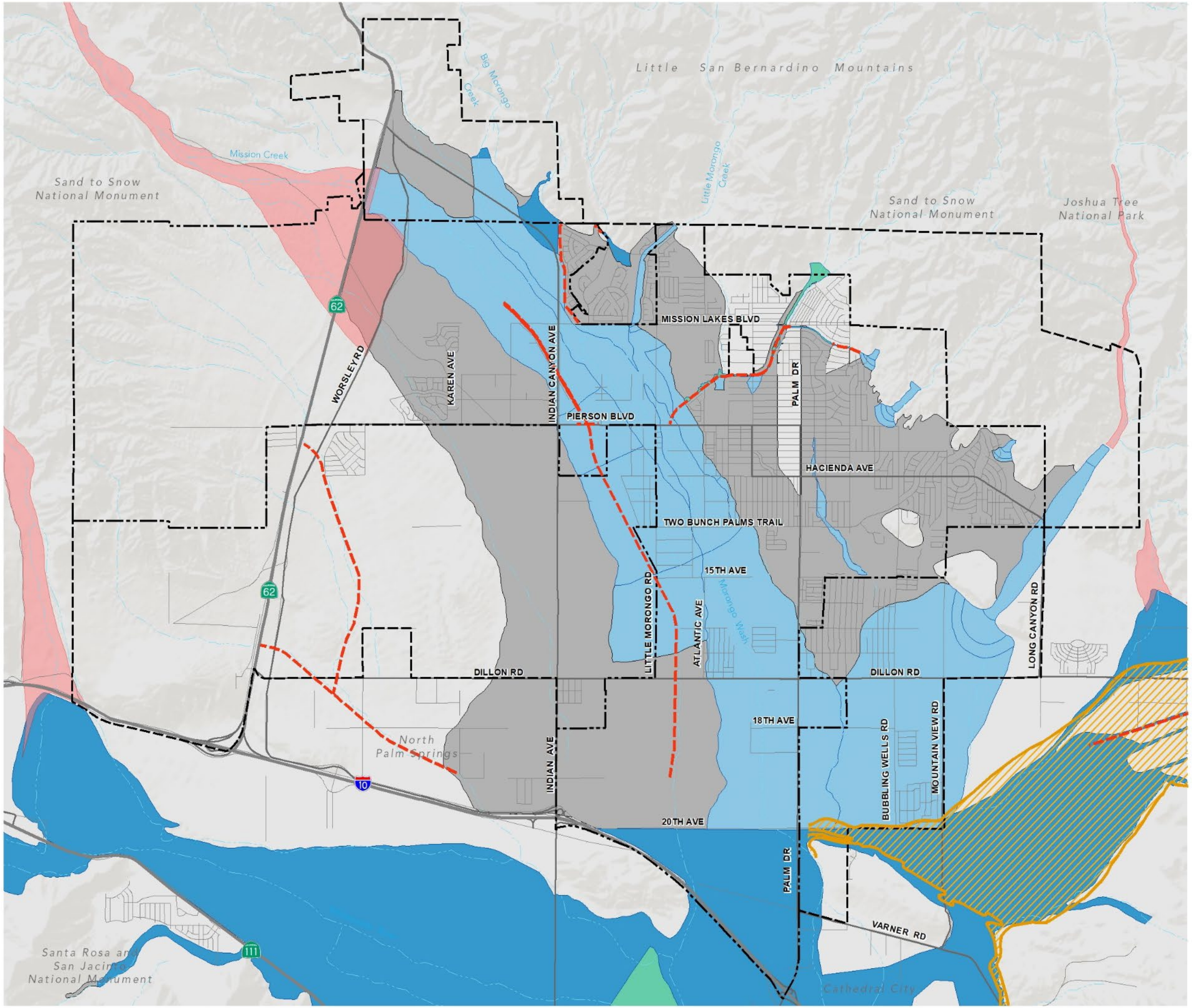
The watercourses from the west and northern portions of the City generally consolidate into two main watercourses, known as Mission Creek and Morongo Wash, in the center portion of the City and then drain farther southeast. The Mission Creek and Morongo Wash 100-year flood zones combine generally south of Mission Lakes Boulevard to form a single large 100-year flood zone that is nearly 1.5 miles wide and flows down to Dillon Road, where it narrows down to approximately one-mile wide.

An additional watercourse originates near the northeast portion of the City, known as the Long Canyon Wash, which crosses the far eastern portion of the City and drains southwest. The Long Canyon Wash 100-year flood zone is relatively narrow until it reaches just north of 16th Avenue, where the drainage fans out and the 100-year flood zone stretches to nearly 1.5 miles wide. The Long Canyon flood zone continues until it joins with the Mission Creek and Morongo Wash flood zone south of Dillon Road. Several minor 100-year flood zones exist along other natural and man-made drainages that cross the City and reach into the mountains to the north.

Dam Inundation

Dam inundation results from a failing dam, which can result in flooding of downstream areas. The Wide Canyon Dam, constructed in 1968, is located east of the City and catches drainage from a large area to the northeast. The dam does not regularly hold back a large amount of water but is intended to control large storm flows and prevents flash flooding. In the unlikely event of the dam’s failure during a large storm event, portions of Desert Hot Springs would be inundated. Exhibit 4.10-2 shows the boundary of the Wide Canyon Dam inundation area.

Exhibit 4.10-2: Flood Hazards



FEMA Flood Zones

Special Flood Hazard Areas Subject To Inundation by the One Percent Annual Chance Flood

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard include Zones A, E, and AO. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- Zone A — No Base Flood Elevations determined.
- Zone AE — Base Flood Eleations determined.
- Zone AO — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

Other Flood Areas

- Zone X — Areas of 0.2% annual chance flood (500-year flood); and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- Awareness Floodplain Boundary (approximate)

Dam Inundation

- Wide Canyon Dam Inundation Area

Flood Control Channels and Facilities

- Riverside County Flood Control Facilities

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

January 2019.

Source: Federal Emergency Management Agency (FEMA), August 2018.
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California Department of Water Resources, Office of Emergency Services, 1958. Dam Inundation Areas, 2009.

0 0.25 0.5 1 1.5 2 Miles

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Seiche and Tsunami
Seiche is the process by which water 'sloshes' outside its containing boundaries, generally due to an earthquake. Seiche can result in localized flooding that can result in property damage or personal injury. This could occur within an open reservoir, lake, or other large waterbody. The Planning Area does not contain any open reservoirs, lakes, or other large bodies of water.

A tsunami is a large wave that generates in the ocean, generally from an earthquake, and builds intense strength and height before impacting a coast. Tsunami can result in significant property damage and loss of life due to the intense, destructive nature of the wave and the often sudden occurrence with little chance for warning. The Planning Area is located over 100 miles inland of the Pacific Ocean, and thus, there is no threat of tsunami in the Planning Area.

4.10.2 Regulatory Framework

Federal

Clean Water Act. The Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges (known as "point sources") into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff, the principal nonpoint source. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water". Under the watershed approach, equal emphasis is placed on protecting healthy waters and restoring impaired ones.

Major CWA programs include water quality standards, anti-degradation policy, waterbody monitoring and assessment, total maximum daily loads (TMDLs), the National Pollutant Discharge Elimination System (NPDES) permit program for point sources, Section 319 program for nonpoint sources, Section 404 program regulating filling of wetlands and other waters, Section 401 state water quality certification, and the state revolving loan fund (SRF).

Federal Emergency Management Agency (FEMA). The Federal Emergency Management Agency (FEMA) creates maps classifying levels of flood risk or flood zones for designated areas. The maps are called Flood Insurance Rate Maps (FIRMs) and are utilized to determine the need and rate of flood insurance. Flood zones are determined based on historical data on the likelihood of flood inundation. The 100-year flood zone, also classified as Zones A, AO and AE, is the area of flooding expected to occur every 100 years.

NPDES Program. The National Pollutant Discharge Elimination System (NPDES) program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. Generally, these permits are issued and monitored under the oversight of the State Water Resources Control Board (SWRCB) and administered by each regional water quality control board. A brief discussion of these permit types are presented below:

Municipal: Municipal separate storm sewer systems (MS4) are issued permits based on the size of the municipality. MS4 permit requirements include reduction of pollutant discharges to the 'maximum extent practicable' and protection of water quality. Requirements also include identification of major outfalls and pollutant loads and control of discharges from new development and redevelopment. To address these objectives, municipalities are required to prepare stormwater management plans. Although the NPDES program does not regulate nonpoint sources of pollution, the Colorado River Basin RWQCB has other programs in place to address nonpoint sources. As part of the Whitewater River Watershed, the City is covered under the Riverside County Flood Control and Water Conservation District's (RCFC&WCD) MS4 permit issued by the Colorado River Basin RWQCB pursuant to Order No. R7-2013-0001. As such, the permitting process for individual development proposals is coordinated between the City and RCFC & WCD.

Industrial*:* The State Water Resources Control Board issues the Industrial General Permit that regulates discharges from 10 broad categories of industrial activities. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and monitoring program to implement water quality objectives through use of the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT).

Construction: Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the State's General Permit for Dischargers of Storm Water Associated with Construction Activity. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a SWPPP and implementation of Best Management Practices (BMPs) with a monitoring program.

State

Porter-Cologne Act (California)*.* Under the Porter-Cologne Water Quality Control Act (Porter-Cologne) the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. Porter-Cologne also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. RWQCBs engage in a number of water quality functions in their respective regions.

Sustainable Groundwater Management Act*.* On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.

Regional And Local

Colorado River Basin RWQCB Plan*.* Water quality and waste discharge standards are adopted and enforced by the Colorado River Basin RWQCB through its Water Quality Control Plan, also known as the "Basin Plan." The Basin Plan is designed to preserve and enhance water quality in the Colorado River Basin Region and to protect the beneficial uses of all regional waters for the benefit of present and future generations. More specifically, the Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan.

City of Desert Hot Springs Municipal Code. The City's Municipal Code addresses hydrology and water quality within the following sections:

- Chapter 15.68, Floodplain Management: The purpose of this chapter is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions. This chapter establishes requirements for notifications to purchasers of property within a designated floodplain.
- Chapter 15.72, Floodplain Construction: This chapter establishes standards for construction, including prefabricated structures, as well as subdivision and development proposals located within flood hazard areas to anchor buildings, use construction materials, and methods to minimize flood damage, provide adequate drainage to minimize flood damage, and proper water supply and sanitary sewer systems to avoid contamination during flooding.
- Chapter 16.04.090, Storm Drain Retention: This chapter requires subdivisions to include storm drain and retention facilities within or outside the subdivision in compliance with the policies and procedures of the Department of Public Works/City Engineer.

Desert Hot Springs General Plan*.* The Land Use and Community Design Element, the Mobility and Infrastructure Element, and the Open Space and Natural Resources Element includes policies related to water quality and hydrology. These polices are listed below:

- Policy LU-1.7: Infrastructure
- Policy LU-9.5: Public Safety Siting
- Policy LU-10.3: Development Cluster
- Policy LU-11.5: Flood Control
- Policy MI-11.9: Flood Prevention
- Policy MI-11.10: Water Supply
- Policy MI-11.16: Septic Tank Removal
- Policy OS-1.1: Natural Habitat and Washes
- Policy OS-1.16: Consult with Flood Control Agencies
- Policy OS-3.1: Water Conservation
- Policy OS-3.2: Water Conservation Incentives
- Policy OS-3.3: Runoff Pollution
- Policy OS-3.5: Water District Consultation
- Policy OS-3.6: Landscaping
- Policy OS-3.7: Gray Water
- Policy OS-3.8: Recycled Water
- Policy OS-3.9: Groundwater Contamination
- Policy OS-3.10: Site Drainage

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.10.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would; (i) result in substantial erosion or siltation on-or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?

D. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

F. Would the project cause substantial adverse cumulative impacts with respect to hydrology and water quality?

4.10.4 Environmental Impacts

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

There are two major classes of pollutants: point-source and non-point-source. Point-source pollutants can be traced to their original source which can be discharged directly from pipes or spills. Non-point-source pollutants (NPS) cannot be traced to a specific original source. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and underground water.

Impacts associated with water pollution include ecological disruption, increased need and cost for water purification, sickness or injury to people, and degradation or elimination of water bodies as recreational opportunities.

Future development within the Planning Area could increase urban runoff from a variety sources (including new residential, commercial, industrial, institutional, recreational, utility, and roadway development) and could increase pollutants in downstream waters. The GPU proposes various changes to the land use plan, including an increase in the total non-residential square feet. The following proposed policies and programs are included in the GPU and are designed to protect water quality:

- **Policy OS-3.3: Runoff Pollution.** Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Policy OS-3.5: Water District Consultation.** Continue to consult with Mission Springs Water District on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.
- **Policy OS-3.9: Groundwater Contamination.** Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.

Growth and new development associated with implementation of the GPU would be subject to existing water quality regulations and programs, which are described above in Section 4.10.2, Regulatory Framework. These programs establish water quality standards and enforcement procedures; new development associated with the GPU would be required to comply with these programs and regulations.

Implementation of the policies listed above, in conjunction with compliance with existing regulatory programs, would ensure that water quality impacts related to implementation GPU would be less than significant.

Level of Significance Before Mitigation:

Less than Significant

Mitigation Measures:

None Required

B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Future development within the Planning Area would require additional water services, the majority of which would come from local groundwater sources. The population increase associated with implementation of the GPU would result in an increase demand for water supply. The GPU includes the following polices related to conservation of water:

The GPU includes several policies aimed at conserving water resources. These include:

- **Policy MI-11.10: Water Supply.** Protect the quality and supply of the City's water sources.
- **Policy OS-3.1: Water Conservation.** Require water conservation measures in new development, equivalent to CalGreen Tier One or similar standards.
- **Policy OS-3.2: Water Conservation Incentives.** Encourage residents and businesses to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.
- **Policy OS-3.5: Water District Consultation.** Continue to consult with Mission Springs

Water District on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.

- **Policy OS-3.6: Landscaping.** Require climate-appropriate landscaping for new development, and limit turf to be used as accent only.
- **Policy OS-3.7: Gray Water.** Encourage and allow for the use of gray water systems in new and existing developments for re-use of onsite water from washbasins, showers, and tubs to be used in toilet flushing and irrigation.
- **Policy OS-3.8: Recycled Water.** Where feasible, require new industrial and commercial developments to install a dual pipe water system to hook up to future Mission Springs Water District recycled water supply, when available, for common area irrigation and for individual property's irrigation.

Urban water suppliers are required to adopt urban water management plans, which include a detailed evaluation of supplies necessary to meet water demands. These water management plans are filed with the California Department of Water Resources and must be updated every five year.

The MSWD Urban Water Management Plan identifies contingency planning in the case of water shortages. The MSWD Water Regulations and Service Ordinance (Ordinance No. 93-3) establishes procedures and policies necessary for the orderly administration of a water conservation program to prohibit waste and restrict water during a water shortage emergency. The Ordinance also contains three stages of action for water supply shortages, which would be applicable to any new development associated with implementation of the GPU. These stages are described below:

- Stage 1: Voluntary Conservation
- Stage 2: Mandatory Compliance
  - Limiting exterior irrigation
  - Commercial and industrial facilities provide plans to MSWD to limit water use
  - Nighttime irrigation for schools and golf courses, along with filling of public swimming pools
  - Limiting washdown in impervious areas
  - Limiting vehicle washing
- Stage 3: Mandatory Conservation Measures
  - Watering of parks, school grounds, golf courses, lawn watering, landscape irrigation, washing down of driveways, parking lots or other impervious surfaces, washing of vehicles, except when done by commercial car wash establishments, using only recycled or reclaimed water, filling or adding water to swimming pools, wading pools, spas, ornamental ponds, fountains and artificial lakes are prohibited" (MSWD 2016).
  - No new construction meters issued
  - Commercial nurseries cannot water plants

The CVWD Urban Water Management Plan also includes a section discussing water shortage contingency planning. This section outlines step for water reduction measures in the case of a water shortage.

The existing urban water management plans for MSWD and CVWD do not take into account the proposed development associated with implementation of the GPU. Mitigation Measure UTL-1 (described in Section 4.19 Utilities) does not allow approval of new development associated with the implementation of the GPU if they increase water use in excess of what is identified for supply in 2040 under the most recent UWMP.

Future development may also impact groundwater recharge by increasing impervious surfaces that hinders percolation of drainage into subsurface aquifers. GPU includes the following policy regarding groundwater recharge:

- **Policy OS-3.3: Runoff Pollution.** Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Policy OS-3.10: Site Drainage.** Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins

With implementation of the Mitigation Measure UTL-1, in addition to the applicable GPU policies and existing applicable policies and regulations, this potential impact would be considered less than significant.

Level of Significance Before Mitigation:

Potentially Significant

Mitigation Measures:

Implement Mitigation Measures UTL-1

Level of Significance After Mitigation:

Less than Significant

C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would; (i) result in substantial erosion or siltation on-or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?

(i) Erosion. Short-term and long-term development activities could potentially result in erosion and siltation impacts as a result of alteration of natural drainage patterns. Siltation is the introduction of increased sediment flows into a water body. Siltation is generally associated with activities such as site grading and deforestation.

Disturbing soil during grading and other earthmoving activities can result in erosion. Future development would be subject to the National Pollutant Discharge Elimination System (NPDES) erosion control requirements. Required erosion control Best Management Practices (BMPs) would ensure that measures are implemented at project sites to prevent or minimize erosion, ensuring that downstream water bodies are protected. Common BMPs may include installation of sandbags and silt fencing around the perimeter of a project site to prevent sediments from being washed off the property during rain.

The GPU includes the following policy related to runoff:

- **Policy OS-3.3: Runoff Pollution.** Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Policy OS-3.9: Groundwater Contamination.** Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.

Short-term erosion effects during the construction phase of development would also be prevented through required implementation of a storm water pollution prevention plan (SWPPP) and through compliance with the NPDES program and the incorporation of best management practices BMPs intended to reduce soil erosion. Soil erosion impacts would be less than significant with implementation of existing regulations.

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite.

Implementation of the GPU would result in an increase of development within the Planning Area, and could result in an increase in surface runoff compared to existing conditions. The GPU includes several policies to address surface runoff:

- **Policy LU-1.7: Infrastructure.** Ensure that infrastructure is integrated into the community concurrently with new development projects.
- **Policy OS-3.3: Runoff Pollution.** Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Policy OS-3.10: Site Drainage.** Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins

All development projects associated with implementation of the GPU would be subject to environmental and engineering review, including development-specific assessment of on-site drainage facilities, and new development would need to comply with all applicable required permits regulations and approvals. Compliance with existing regulatory programs would ensure flooding would not occur.

(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Future development within the Planning Area could potentially increase stormwater flows into the existing storm drain system. The increase in development, and therefore impervious surfaces, also increases the amount of urban runoff that generally increases the amount of pollutants within the stormwater.

The GPU includes several policies to address surface runoff:

- **Policy LU-1.7: Infrastructure.** Ensure that infrastructure is integrated into the community concurrently with new development projects.
- **Policy OS-3.10: Site Drainage.** Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins

Additionally, The City's Engineering Department requires that new development projects do not increase the rate of storm flows from the developing property, which typically requires addressing storm flows onsite. The primary means is through use of detention basins and underground storage tanks, especially in larger developments. In addition, the City requires developments to construct MDP facilities or portions of facilities that may be located on-site or adjacent to a site or that may be required by a development's impacts.

(iv) Impede or redirect flood flows? As is currently allowed within the City, implementation of the GPU would allow development within portions of floodplains, which could potentially place structures within a floodplain, such as roads, bridges, commercial development, and drainage control facilities. Several sections of the municipal code include provisions to reduce the potential for flooding, as specified in Chapter 15.72, Floodplain Construction, and Chapter 15.68, Floodplain Management. These provisions include standards required in areas of special flood hazards, which include anchoring, construction materials and methods, elevation and floodproofing. All development associated with implementation of the GPU would be required to adhere to the provisions outlined in the municipal code.

Furthermore, the following policies from the GPU are designed to ensure that any future structures proposed within a floodplain do not negatively impede or redirect floodwaters:

- **Policy LU-1.7: Infrastructure.** Ensure that infrastructure is integrated into the community concurrently with new development projects.
- **Policy LU-9.5: Public Safety Siting.** Avoid establishing public services and safety facilities in or near flooding and seismic hazard areas.

- **Policy LU-10.3: Development Cluster.** Encourage the clustering of development for the preservation of natural open space, away from floodplains and desert washes, and for the provision of parkland and other community amenities and services.
- **Policy LU-11.5: Flood Control.** Encourage the construction/improvement of necessary flood control facilities within the conservation area in a manner sensitive to natural habitat
- **Policy MI-11.9: Flood Prevention.** Support flood prevention infrastructure on and around Mission Creek and Morongo Wash areas and other areas of the City prone to flooding.
- **Policy OS-1.16: Consult with Flood Control Agencies.** Consult with the Riverside County Flood Control and Water Conservation District and U.S. Army Corps of Engineers to plan, design, and build flood control facilities that balance the preservation of the natural habitat and minimizing flooding hazards.

Level of Significance Before Mitigation:

Less than Significant

Mitigation Measures:

None Required

D. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Please see section 4.10.4.C(iv) for a discussion of flood hazards.

The California Department of Conservation does not identify Desert Hot Springs as within a Tsunami inundation map (California Department of Conservation, 2009). Seiche is the process by which water 'sloshes' outside its containing boundaries, generally due to an earthquake. Seiche can result in localized flooding that can result in property damage or personal injury. The Planning Area does not contain any open reservoirs, lakes, or other large bodies of water.

Dam inundation results from a failing dam, which can result in flooding of downstream areas. The Wide Canyon Dam, constructed in 1968, is located easterly of the City and catches drainage from a large area to the northeast. The dam does not regularly hold back a large amount of water but is intended to control large storm flows and prevents flash flooding. In the unlikely event of the dam's failure during a large storm event, a very small portion of the Planning Area would be affect. Exhibit 4.10-1 illustrates the boundary of the Wide Canyon Dam inundation area. The area lies along drainages that extend from the dam to near Palm Drive and 20th Avenue and is within an identified flood plain. Furthermore, the State Department of Water Resources, Division of Safety of Dams, has regulatory oversight over this dam.

Given the existing regulations and policies addressing development in flood hazard areas, in addition to the minimal risk associated with tsunamis, seiches, and dam failure, the potential of development associated with implementation of the GPU to be subject to risk of release of pollutions due to inundation would be considered less than significant.

Level of Significance Before Mitigation:

Less than Significant

<u>*Mitigation Measures:*</u>

None Required

E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Water Quality Control Plan for the Colorado River Basin (Basin Plan) is designed to preserve and enhance water quality in the Region. The Basin Plan contains the Region's beneficial uses for ground and surface waters, water quality objectives to protect beneficial uses, and implementation programs to achieve water quality objectives.

The Basin Plan is divided into six chapters. Chapter 1 provides a summary overview of the functions of the State and Regional Water Boards, the legal basis and authority for the Basin Plan, and the physical features of the Colorado River Basin Region. Chapter 2 designates the beneficial uses for surface and ground waters in the Region. Chapter 3 designates the water quality objectives necessary to ensure the reasonable protection of the beneficial uses. Chapter 4 describes the implementation plans for achieving and maintaining the beneficial uses and water quality objectives. Chapter 5 summarizes the various plans and policies which protect water quality and also describes water quality issues requiring special attention. Chapter 6 provides a summary description of the water quality monitoring and surveillance program of the Regional Water Board.

As described in the Basin Plan, the Regional Water Board implements the Basin Plan by issuing and enforcing waste discharge requirements to persons including individuals, communities, or businesses whose waste discharges may affect water quality. These requirements can be either state WDRs or federally-delegated NPDES permits for discharges to waters of the United States. Dischargers are required to meet water quality objectives and thus protect beneficial uses. This Basin Plan also encourages water users to improve the quality of their water supplies, particularly where the wastewater they discharge is likely to be reused. Public works and other projects, which can affect water quality, are reviewed and their impacts are identified. Proposals which implement or help achieve the goals of the Basin Plan are supported.

Implementation of the GPU would not conflict with the Basin Plan resulting in a significant environmental impact. Several policies are included in the GPU to protect water supply and water quality. These policies include the following:

- **Policy MI-11.10: Water Supply.** Protect the quality and supply of the City's water sources.
- **Policy MI-11.16: Septic Tank Removal.** Encourage removal of existing septic tanks and transition to sewer services
- **Policy OS-1.1: Natural Habitat and Washes.** Protect the natural habitat within Mission Creek, Morongo Wash, and Long Canyon Wash.
- **Policy OS-1.16: Consult with Flood Control Agencies.** Consult with the Riverside County Flood Control and Water Conservation District and U.S. Army Corps of Engineers to plan, design, and build flood control facilities that balance the preservation of the natural habitat and minimizing flooding hazards.
- **Policy OS-3.1: Water Conservation.** Require water conservation measures in new development, equivalent to CalGreen Tier One or similar standards.

- **Policy OS-3.2: Water Conservation Incentives.** Encourage residents and businesses to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.
- **Policy OS-3.3: Runoff Pollution.** Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.
- **Policy OS-3.5: Water District Consultation.** Continue to consult with Mission Springs Water District on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.
- **Policy OS-3.6: Landscaping.** Require climate-appropriate landscaping for new development, and limit turf to be used as accent only.
- **Policy OS-3.7: Gray Water.** Encourage and allow for the use of gray water systems in new and existing developments for re-use of onsite water from washbasins, showers, and tubs to be used in toilet flushing and irrigation.
- **Policy OS-3.8: Recycled Water.** Where feasible, require new industrial and commercial developments to install a dual pipe water system to hook up to future Mission Springs Water District recycled water supply, when available, for common area irrigation and for individual property's irrigation.
- **Policy OS-3.9: Groundwater Contamination.** Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.
- **Policy OS-3.10: Site Drainage.** Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. The Mission Creek and Garnet Hill Water Management Plan and the Coachella Valley Water Management Plan 2010 Update address groundwater sub-basins within the Planning Area.

Future development within the Planning Area would require additional water services, the majority of which will come from local groundwater sources. The population increase associated with implementation of the GPU would result in an increase demand for water supply. The GPU includes the following polices related to conservation of water:

- **Policy MI-11.10: Water Supply.** Protect the quality and supply of the City's water sources.
- **Policy OS-3.1: Water Conservation.** Require water conservation measures in new development, equivalent to CalGreen Tier One or similar standards.

- **Policy OS-3.2: Water Conservation Incentives.** Encourage residents and businesses to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.
- **Policy OS-3.5: Water District Consultation.** Continue to consult with Mission Springs Water District on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.
- **Policy OS-3.6: Landscaping.** Require climate-appropriate landscaping for new development, and limit turf to be used as accent only.
- **Policy OS-3.7: Gray Water.** Encourage and allow for the use of gray water systems in new and existing developments for re-use of onsite water from washbasins, showers, and tubs to be used in toilet flushing and irrigation.
- **Policy OS-3.8: Recycled Water.** Where feasible, require new industrial and commercial developments to install a dual pipe water system to hook up to future Mission Springs Water District recycled water supply, when available, for common area irrigation and for individual property's irrigation.

The existing urban water management plans for MSWD and CVWD do not take into account the proposed development associated with implementation of the GPU. Mitigation Measure UTL-1 (described in Section 5.19 Utilities) does not allow approval of new development associated with the implementation of the GPU if they increase water use in excess of what is identified for supply in 2040 under the most recent UWMP

Implementation of the GPU would not conflict with the groundwater plans resulting in a significant environmental impact. All development projects associated with implementation of the GPU would be subject to environmental and engineering review. With implementation of the Mitigation Measure UTL-1, in addition to the applicable GPU policies and existing applicable policies and regulations, this potential impact would be considered less than significant.

Level of Significance Before Mitigation:

Potentially Significant

Mitigation Measures:

Implement Mitigation Measures UTL-1

Level of Significance After Mitigation:

Less than Significant

F. Would the project cause substantial adverse cumulative impacts with respect to hydrology and water quality?

New development associated with implementation of the GPU would result in new development and new impervious surfaces being constructed within the Planning Area. All development projects associated with implementation of the GPU would be subject to environmental and engineering review, including development-specific assessment of on-site drainage facilities, and new development would need to comply with all applicable required permits regulations and approvals. On-going compliance with the NPDES requirements would reduce potential impacts to water quality. New development would be required to implement BMPs to treat storm water runoff, reducing the potential for a cumulative impact with respect to water quality. Mitigation Measures UTL-1 would ensure that there is adequate water to serve new development and that the Project would not substantially decrease groundwater supplies. Implementation of the GPU would not cause a substantial adverse cumulative impact with respect to hydrology and water quality.

Level of Significance Before Mitigation:

Potentially Significant

Mitigation Measures:

Implement Mitigation Measures UTL-1

Level of Significance After Mitigation:

Less than Significant

4.10.5 References

California Department of Conservation, 2019. CGS Information Warehouse: Tsunami (https://maps.conservation.ca.gov/cgs/informationwarehouse/tsunami/ accessed September 18, 2019).

California Regional Water Quality Control Board, Colorado River Basin Region, 2019. *Water Quality Control Plan for the Colorado River Basin Region,* Effective on or Before January 8.

Mission Springs Water District (MSWD), 2019. Draft EIR for West Valley Reclamation Program, Prepared by Tom Dodson and Associates.

MWH, 2012. *Coachella Valley Water Management Plan 2010 Update,* January.

MWH, 2013. *Mission Creek/Garnet Hill Water Management Plan Final Report,* January.

MWH, 2016. *Coachella Valley Water District, 2015 Urban Water Management Plan, Final Report,* July 1.

Psomas, 2016. *Mission Springs Water District, 2015 Urban Water Management Plan,* June 20.

Western Regional Climate Center, 2019. Climate summary for Palm Springs, California. (https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6635 accessed September 18, 2019).

4.11 – Land Use and Planning

This section describes land uses within the Desert Hot Springs Planning Area, presents the existing regulatory context, and identifies potential land use and planning impacts associated with implementation of the General Plan Update (GPU).

4.11.1 Environmental Setting

Desert Hot Springs currently consists predominantly of low-density residential development, several commercial centers at key intersections, a pedestrian scale downtown, and light industrial uses on the periphery. Much of the City and Planning Area is currently undeveloped; there are areas on the periphery of the city where newer housing developments have been started. Indoor cultivation of cannabis for commercial purposes occurs in the southern portion of the City along the Little Morongo Road and Indian Canyon Drive corridors. Since incorporation in 1963, the City has seen periods of surging population growth, particularly between 1980 and 2010. During the Great Recession of 2007 to 2009, there was little growth or development. The population of the City, as of 2018, is just below 30,000; the City has nine public schools (one high school, two middle schools, and six elementary schools).

The southern portion of the City lies to the north of Interstate 10. Interstate 10 provides regional east-west access through Desert Hot Springs; interchanges providing access for City of Desert Hot Springs are located at Indian Canyon Drive and Palm Drive. State Route 62 is a four-lane divided highway which runs in a north-south direction along the western side of the City. Primary access points for City of Desert Hot Springs access are provided at Indian Canyon Drive, Pierson Boulevard, Dillon Road, and Palm Drive.

Existing Land Use Distribution

The City's corporate boundaries total 30.5 square miles and its Sphere of Influence (unincorporated Riverside County) totals 28.8 square miles for a total Planning Area of 59.3 square miles. Existing land uses within the Planning Area are divided into six categories: residential, commercial, industrial, public and institutional, open space, and undeveloped (vacant) lands. The City's Existing Land Use map is shown as Exhibit 14.1-1; Desert Hot Springs' existing land use distribution is presented in Table 4.11-1. There are an estimated 11,562 dwelling units within the city limits and 7,538 dwelling units in the sphere of influence, for a total 19,100 dwellings within the Planning Area.

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Table 4.11.-1
Existing Land Uses

Land Use Designation	Desert Hot Springs			Sphere of Influence			Planning Area		
	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet
Residential									
Single-Family	1,533.4	7,487	--	1,085.6	5,301	--	2,619.00	12,788	--
Multiple-Family	203.2	3,204	--	15.6	246	--	218.8	3450	--
Mobile Homes	145.9	871	--	333.5	1,991	--	479.4	2,862	--
Sub-Total	**1,882.5**	**11,562**	**--**	**1,434.7**	**7,538**	**--**	**3,317.20**	**19,100**	**--**
Commercial									
General Commercial	140.1	--	915,413	35.9	--	234,571	176	--	1,149,984
Hotel/Motel Spa	60.8	--	582,475	0.0	--	--	60.8	--	582,475
Office	10.7	--	120,183	0.4	--	4,513	11.1	--	124,696
Sub-Total	**190.0**	**--**	**1,618,071**	**36.3**	**--**	**239,084**	**247.9**	**--**	**1,857,155**
Industrial									
Light Industrial	158.7	--	1,036,945	49.0	--	320,166	207.7	--	1,357,111
Wind/Solar Farms	185.8	--	--	1,575.4	--	--	1,761.20	--	--
Sub-Total	**344.5**	--	**1,036,945**	**1,624.4**	--	**320,166**	**1,968.90**	--	**1,357,111**
Public and Institutional									
Public Facility	37.3	--	--	214.1	--	--	251.4	--	--
School - Public	111.3	--	--	14.9	--	--	126.2	--	--
Museum	4.8	**--**	**--**	**--**	**--**	**--**	**4.8**	**--**	**--**
Utility/Infrastructure	140.6	--	--	--	--	--	140.6	--	--
Sub-Total	**294.0**	--	--	**229.0**	--	--	**523**	--	--
Open Space									
Parks and Recreation	53.7	--	--	--	--	--	53.7	--	--
Golf Course	--	--	--	362.3	--	--	362.3	--	--
Open Space	4,508.3	--	--	5,613.0	--	--	10,121.30	--	--
Sub-Total	**4,562.0**	**--**	**--**	**5,975.3**	**--**	**--**	**10,537.30**	**--**	**--**
Undeveloped Land									
Vacant	10,764.3	--	--	8,179.7	--	--	18,962.30	--	--
Sub-Total	**10,764.3**	--	--	**8,179.7**	--	--	**18,962.30**	--	--
TOTAL	**18,058.9**	**11,562**	**2,655,016**	**17,497.7**	**7,538**	**559,250**	**35,556.60**	**19,100**	**3,214,266**

Source: City of Desert Hot Springs, Riverside County Assessor's Data, and General Plan Update GIS data, 2018.
Note: 1) Net acres excludes streets and other public rights of way

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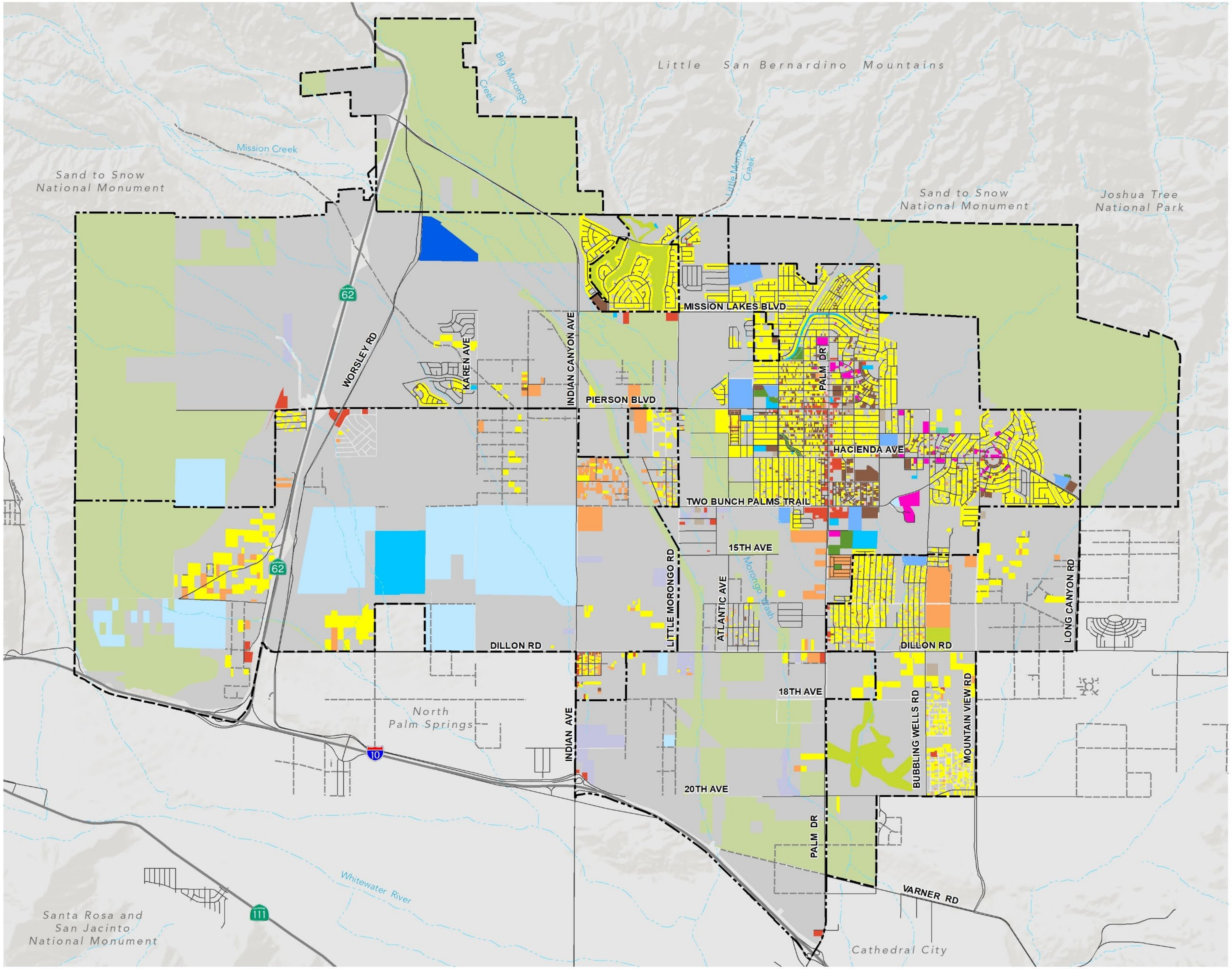
Exhibit 4.11-1: Existing Land Uses



Existing Land Use (2018)

- Single Family
- Mobile Home
- Multiple Family
- Commercial
- Spa Hotel/Motel
- Industrial
- Office
- Park
- Golf Course
- Open Space
- Religious Institution
- Museum
- School
- Public Facility
- Flood Control/Recharge Basin
- Solar/Wind Farms
- Vacant

Base Map Features

- City Boundary
- Sphere of Influence
- Highway
- Major Road
- Minor Road
- Water Courses

Source: City Of Desert Hot Springs and Riverside County; Urban Footprint, and MIG.

Date: January 2019.

0 0.25 0.5 1 1.5 2 Miles

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4.11.2 Regulatory Framework

2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) is a long-term vision of how the region will address regional transportation and land use challenges and opportunities. The 2016 RTP/SCS identifies goals, which are intended to help carry out the vision for improved mobility, a strong economy, and sustainability. The guiding policies for the 2016 RTP/SCS are intended to help focus future investments on the best-performing projects and strategies to preserve, maintain, and optimize the performance of the existing transportation system.

Existing City of Desert Hot Springs General Plan (2000). The existing Desert Hot Springs General Plan, adopted in 2000, provides the goals, policies and programs to guide the development of the City. In addition to goals and policies, the General Plan includes issues discussions, diagrams, maps, tables and charts that provide direction for the management of future development. The existing City of Desert Hot Springs General Plan (2000 General Plan) is divided into the following five (5) sections that are further divided into the following twenty-three (23) elements:

- Administration and Implementation
  - Administration Element
- Community Development
  - Land Use Element
  - Circulation Element
  - Housing Element
  - Parks and Recreation Element
  - Community Design Element
  - Economic Development Element
- Environmental Resources
  - Biological Resources Element
  - Archaeological and Historic Resources Element
  - Water Resources Element
  - Air Quality Element
  - Open Space and Conservation Element
  - Energy and Mineral Resources Element
- Environmental Hazards
  - Geotechnical Element
  - Flooding and Hydrology Element
  - Noise Element
  - Hazardous and Toxic Materials Element

- Public Services and Facilities
    - Water, Sewer, and Utilities Element
    - Fire and Police Protection Element
    - Schools and Libraries Element
    - Health Services Element
    - Emergency Preparedness Element
    - Public Building and Facilities Element

The Land Use Element of the 2000 General Plan provides a plan of the general allocation and distribution of land uses throughout the City. The element serves as a statement of the standards and targets for residential population density and building intensity. The Land Use Element also identifies areas planned for commercial and industrial uses, and areas of existing and planned public and quasi-public uses and is the basis for coherent land use policy development.

The 2000 General Plan includes the land use designations for the Planning Area. These land uses designations are described below and shown in Exhibit 4.11-2 (2000 General Plan Land Use Map):

- **Residential Estates (R-E).** Provides for single-family residential development on lots varying from one to 10 acres. This land use provides intermediate steps in development density between open space lands and low residential densities, providing lots sufficient for rural and estate lifestyle yet with room to limit site and environmental impacts..
- **Low Density Residential (R-L).** The low density designation provides for single-family residential development on individual lots that are at least 9,000 square feet. These lands serve to buffer more dense residential development from estate residential uses, and may be appropriate in areas with some site constraints. This designation typically provides for moderately low density single family subdivisions and Planned Residential Developments (PRDs). It serves to transition between lower and more moderate (medium) residential densities.
- **Medium Density Residential (R-M).** This designation includes single family and Planned Residential Developments (PRDs) with shared open space, recreation and other amenities. Condominiums, garden apartments and affordable housing may also be appropriate for these lands. The intent of this designation is to encourage development of a wide variety of dwelling unit types.
- **Residential Mobilehome (R-MH).** This land use designation is assigned to existing mobilehome parks and subdivisions, and also provides for new mobilehome developments. Projects developed under this designation should be integrated and planned developments within a minimum planning area of 2.5 acres.
- **High Density Residential (R-H).** This designation allows for the greatest diversity of residential development, including attached single and multi-family dwellings. This designation is most suitable for planned communities and affordable and senior housing, where smaller units and higher densities may be appropriate. Duplex and multiplex development is the most common and provides for PRDs comprised of a varying range of residential types, including apartments and condominiums. Mobile home parks or subdivisions with PRDS type development may also allowed with the approval of a Conditional Use Permit.

- **Residential-Visitor Serving (R-VS).** This land use designation recognizes the predominant residential character of lands which also include numerous spa-type hotels. It is meant to foster compatible development to serve permanent and seasonal residents, as well as the vacationing public visiting resorts, hotels and motels. This designation is followed by a suffix (L, M & H) designating permitted residential densities.
- **Neighborhood Commercial (C-N).** Provides for neighborhood scale shopping centers located near residential areas. These developments are typically anchored by supermarkets and super drugstores. A wide range of other uses, including banking, barbers/beauty salons, dry cleaners, restaurants, service businesses, offices and other related activities are typically found in these planned centers. Typical sizes are 8 to 10 acres providing approximately 80,000 to 100,000 square feet of gross leasable floor area.
- **General Commercial (C-G).** These lands includes a wide variety of smaller commercial centers, specialty retail shops, a broad range of clothing and apparel, jewelry stores and a variety of personal service businesses. Smaller, moderately priced department stores may also be appropriate under this designation. Development may range from free-standing retail buildings, offices and restaurants, to planned commercial centers. Typical sizes range between 2 to 8 acres with gross leasable square footage varying with uses. Hotels and motels may also be appropriate on these lands.

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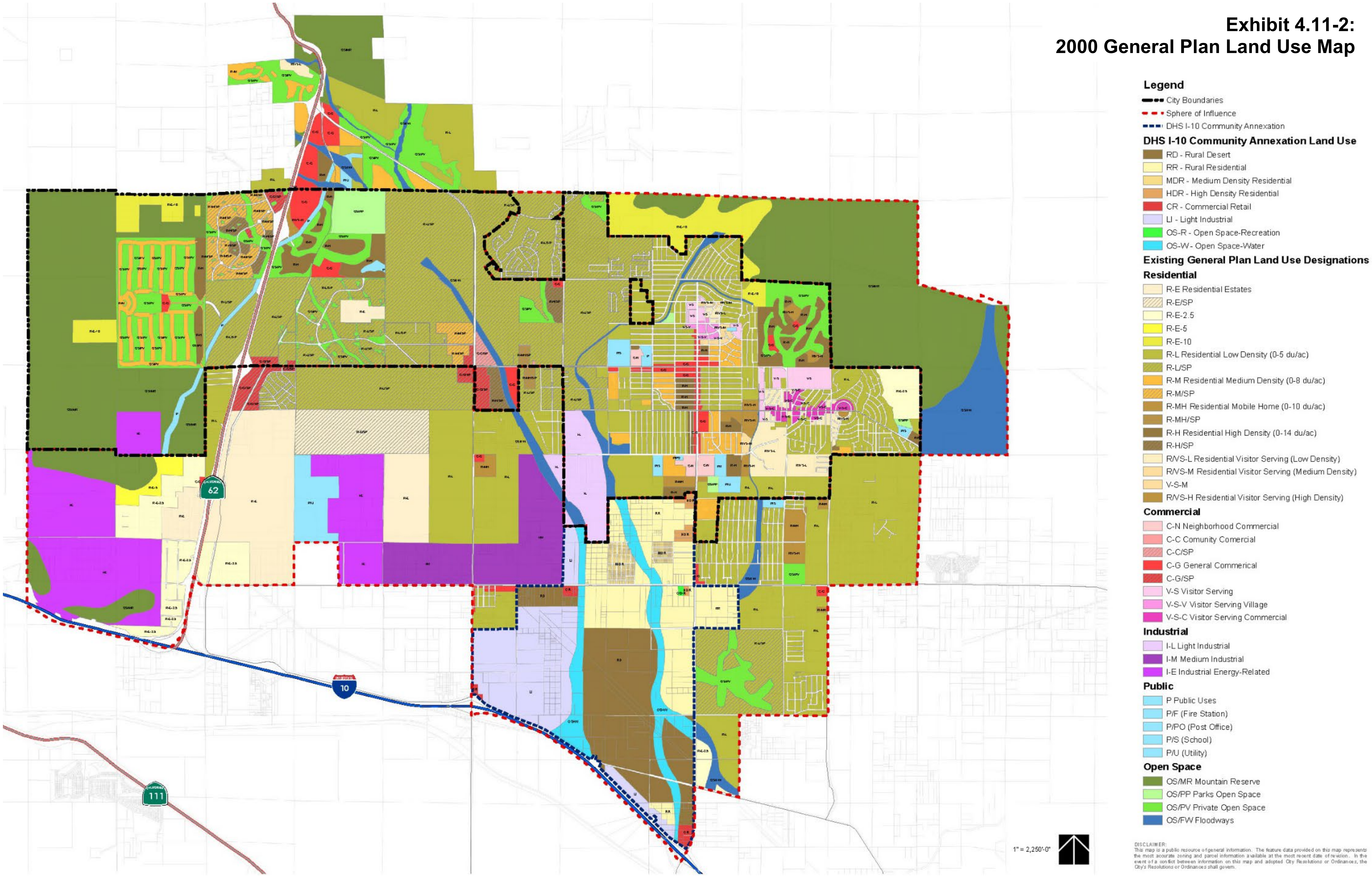
Exhibit 4.11-2: 2000 General Plan Land Use Map



DISCLAIMER:
This map is a public resource of general information. The feature data provided on this map represents the most accurate zoning and parcel information available at the most recent date of revision. In the event of a conflict between information on this map and adopted City Resolutions or Ordinances, the City's Resolutions or Ordinances shall govern.

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- **Community Commercial (C-C).** This designation provides for larger, community scale shopping centers and malls, which may be anchored by several department stores or other large-scale anchors. A variety of retail outlets, and restaurant and entertainment uses are also typical. Hotels and motels may also be appropriate on these lands. Office development may also be an integral part of these developments. Typical sizes range between 100-300,000 square feet or more of gross leasable floor area. This type of development requires approval of a Specific Plan. While smaller than regional facilities, the community commercial center will serve the entire community, as well as the surrounding market area.
- **Specific Plan Overlay (---/SP).** This designation is used in conjunction with other underlying designations. It requires the development of a Specific Plan of Land Use on parcels or groups of parcels of 40 acres or more. The designation is applied as an overlay on the General Plan Land Use Map and can be added to any land use designation. It is also appropriate as a means of processing community-scale commercial and mixed use development proposals. Specific Plans provide detailed design and analysis of large scale and/or complex projects indicating the distribution, location, and intensity of proposed land uses. They also examine the required level of public facilities and services and their availability, and they should help establish economic viability of proposed developments. Several Specific Plans have been adopted and shall be shown on the Land Use Map.
- **Pierson Boulevard Specific Plan Overlay.** This area-specific land use planning corridor is limited to that portion of Pierson Boulevard extending from Atlantic Avenue westward to Highway 62, and extending one-half mile north and south of this portion of Pierson Boulevard. The Pierson Boulevard Specific Plan corridor encourages the preparation of mixed-use development plans within this planning area. Development proposals in the corridor requesting approval of more than one type of land use are required to submit Specific Plans for consideration by the City. Development proposals limited only to the underlying land use designation need not prepare a Specific Plan if planning areas are less than 40 acres in size.
- **Light Industrial (I-L).** This designation provides for business parks and the development of any and all industrial uses operating entirely in enclosed buildings, and those requiring limited and screenable outdoor storage. Examples include clean manufacturing operations, warehousing and distribution facilities, mini-warehouse storage, and a variety of light manufacturing businesses. Siting industrial lands in close proximity to major regional highways is also desirable. Preferred development includes master planned business and industrial parks with integrated access and internal circulation.
- **Medium Industrial (I-M).** This designation allows development of more intense industrial uses with the potential to generate substantial levels of noise, smoke, dust, glare, traffic vibration or other nuisance. Examples include the manufacturing of durable goods such as appliances, furniture, fabricated metal products, and light electrical and transportation equipment. These uses may also have greater dependence on outdoor storage. Proponents will be required to mitigate any adverse impacts to acceptable or insignificant levels, demonstrate conformance with all community environmental standards, and be compatible with existing and planned land uses.
- **Energy-Related Industrial (I-E).** This land use designation provides for the development of energy producing industries, including windfarms and solar photovoltaic or thermal arrays on an industrial scale. Proposed development must demonstrate compatibility with surrounding uses, and must be especially sensitive to nearby residential development. Other appropriate uses may include those incidental to energy production or transmission,

as well as those which do not impair development of energy resources, including plant nurseries and nonstructural recreation such as golf courses.

- **Public/Quasi-Public (P).** This designation provides for City Hall, other City and governmental offices, libraries, schools, hospitals, police and fire stations, utility substations, as well as other public/quasi-public administrative offices.
- **Open Space (OS).** This designation is assigned to those lands which constitute special, important or valuable natural resources that warrant protection. The designation is assigned to such lands as parks, which carry a designation of OS/PP; golf courses/pool areas/landscaped lands are defined as private open space with a designation of OS/PV. Mountainous areas under public or quasi-public ownership are assigned the designation of Mountain Reserve (OS/MR). The designation allows the discretionary approval of trails, trailheads and associated facilities, but does not allow vehicular access.

City of Desert Hot Springs Specific Plans. A specific plan is a detailed plan for the development of a particular area. Specific plans are intended to provide specifications for the types of uses to be permitted, development standards (setbacks, heights, landscape, architecture, etc), circulation, and infrastructure improvements that are broadly defined by the General Plan. Specific plans are often used to ensure that multiple property owners and developers adhere to a single common development plan, as well as to provide flexibility in development standards beyond those contained in the Development Code as a means of achieving superior design.

In the City of Desert Hot Springs, the specific plans that have been adopted are listed below:

- Coachillin Specific Plan
- Del Mar Village Specific Plan
- Desert Hot Springs Retail Center Specific Plan
- Desert Harvest Specific Plan
- Desert Land Ventures Specific Plan
- Eagle Point Specific Plan
- Highland Falls Specific Plan
- Indian Hills Specific Plan
- Mountain View Country Estates I
- Mountain View Estates II
- Oasis Specific Plan
- Palmwood Specific Plan
- Rancho Royale Specific Plan
- Resort Cornerstone Specific Plan
- Two Bunch Palms Resort Specific Plan
- Skybourne Specific Plan
- Vista Del Monte Specific Plan

- Vortex Specific Plan
- Walmart Specific Plan
- Watermake Homes Century Village Specific Plan

City of Desert Hot Springs Municipal Code. The City's Municipal Code serves as the primary implementation tool for the General Plan, specifically the Zoning and Subdivision Ordinances. Whereas the General Plan is a policy document and sets forth direction for land use policy-level decisions, these ordinances are a regulatory document that establishes specific standards for the use and development of all properties in the City.

Zoning Ordinance. The Desert Hot Springs Zoning Ordinance (Title 17 of the Municipal Code) establishes permitted and conditionally permitted uses within the City. The City's Zoning Ordinance regulates development intensity using a variety of methods, such as lot size, lot dimensions, setbacks, lot coverage, height restrictions, and parking and landscaping provisions.

Subdivision Ordinance. The Subdivision Ordinance regulates the division of real property within the incorporated areas of the City. The Subdivision Ordinance sets land division provisions, such as improvement requirements.

Desert Hot Springs General Plan. The Land Use and Community Design Element of the GPU addresses land use within the Planning Area. This element includes several land use related policies, including those listed below:

- Policy LU-1.1: Balanced Growth.
- Policy LU-1.2: Complete Neighborhoods.
- Policy LU-1.3: Compatibility.
- Policy LU-1.4: Sustainability.
- Policy LU-1.5: Reduce Vehicular Trips and Miles Traveled.
- Policy LU-1.6: Infill Revitalization.
- Policy LU-1.7: Infrastructure.
- Policy LU-1.8: Lot Consolidation.
- Policy LU-2.1: Residential Compatibility.
- Policy LU-2.2: Development Transitions.
- Policy LU-2.3: Consistent Development.
- Policy LU-2.4: Housing Innovation.
- Policy LU-2.7: Higher Residential Density Corridor.
- Policy LU-2.8: Specific Plans.
- Policy LU-2.9: Residential Master Plan Communities.
- Policy LU-3.1: Commercial Services.
- Policy LU-3.2: Neighborhood-Serving Commercial.
- Policy LU-3.3: Balance Commercial.
- Policy LU-3.6: Commercial Intensification.
- Policy LU-3.7: Medical and Health Services.
- Policy LU-3.8: Freeway-Oriented Uses.
- Policy LU-4.1: Central Business District.
- Policy LU-4.2: Pedestrian-friendly Environments.
- Policy LU-4.6: Downtown Pedestrian Design.

- Policy LU-4.8: Arts and Culture District.
- Policy LU-7.1: Mixed-Use Commercial Component.
- Policy LU-7.2: Mixed-Use Street Interface.
- Policy LU-7.3: Mixed-Use Building Transition.
- Policy LU-7.5: Connections.
- Policy LU-7.6: Innovative Parking Solutions.
- Policy LU-8.3: Protect Industrial Uses.
- Policy LU-9.1: Public Services.
- Policy LU-9.2: Public Uses.
- Policy LU-10.1: Public Services. Parks and Open Space.
- Policy LU-10.2: Private and Common Open Space.
- Policy LU-10.3: Development Cluster.
- Policy LU-10.5: Preserve Hillside Areas.
- Policy LU-10.6: Hillside Acquisition.
- Policy LU-11.1: Efficient Land Use Patterns.
- Policy LU-11.2: Cluster Development.
- Policy LU-11.3: Density Transfers.
- Policy LU-11.4: Development Transitions.
- Policy LU-11.5: Flood Control.
- Policy LU-12.3: Future Growth.
- Policy MI-1.1: Transportation Network Improvements.
- Policy MI-2.6: Rights-of-Ways.
- Policy MI-3.7: Pedestrian Street Design.
- Policy MI-4.1: Prioritize Walking.
- Policy MI-4.2: Active Transportation Facilities.
- Policy MI-4.3: Connectivity.
- Policy MI-7.2: Transit Expansion.
- Policy MI-7.3: Transit Facilities.

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.11.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Physically divides an established community?
B. Causes a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?
C. Would the project cause substantial adverse cumulative impacts with respect to land use and planning?

4.11.4 Environmental Impacts

A. Physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as new freeway, railway, or other large transportation project) or the removal of a means of access (such as a bridge) that would impede or restrict movements within a community. The GPU is a policy document designed to direct long-term growth within the Planning Area and does not propose major circulation changes that would restrict access to an area of the City.

The GPU does include several policies intended to facilitate travel within the Planning Area:

- **Policy MI-1.1: Transportation Network Improvements.** Establish and maintain a multimodal mobility plan which sets forth improvement plans and project prioritization for a variety of modes and users of the transportation network.
- **Policy MI-2.6: Rights-of-Ways.** Use available public rights-of-ways to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.
- **Policy MI-3.7: Pedestrian Street Design.** Explore enhanced pedestrian designs, including but not limited to way-finding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, automatic pedestrian signals, reduced crossing lengths, wider sidewalks, and specialty paving and seating areas.
- **Policy MI-4.1: Prioritize Walking.** Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
- **Policy MI-4.2: Active Transportation Facilities.** Coordinate all active transportation facilities. Connect to nearby regional designations and facilities to ensure a seamless bicycle and pedestrian network.
- **Policy MI-4.3: Connectivity.** Require that new developments increase connectivity through direct and safe pedestrian and bicycling connections to the established network.
- **Policy MI-7.2: Transit Expansion.** Encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency, Native American tribes, and other external providers within the City.
- **Policy MI-7.3: Transit Facilities.** Require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities such as trash receptacles, signage, seating, shelters, and lighting.

Implementation of the GPU would not physically divide an established community.

<u>Level of Significance Before Mitigation:</u>

Less Than Significant.

<u>*Mitigation Measures:*</u>

No mitigation is required.

B. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

This section includes a discussion of potential conflicts between the GPU and applicable planning documents, which are described above. It should be noted that policy conflicts do not, in and of themselves, constitute a significant environmental impact. However, a policy inconsistency is considered to be a significant adverse environmental impact when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse *physical* impact. Please note that planning documents that pertain to specific technical topics (e.g., Air Quality) are discussed in those topical sections of this Draft EIR. The Draft General Plan Land Use Map is included with the Project Description (Section 3.0).

2016-2040 Regional Transportation Plan/Sustainable Communities Strategy
The SCAG Regional Council adopted the 2016-2040 RTP/SCS in April 2016. The long-range visioning plan identifies several goals which are intended to help carry out the vision for improved mobility, a strong economy, and sustainability. These 2016-2040 RTP/SCS goals, and the GPU's relationship to these goals, are presented in Table 4.11-2. As shown below, the implementation of the GPU would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

The 2016-2040 RTP/SCS also includes growth projections for cities and counties within the region. Population growth associated with the General Plan Update would exceed the projected population growth forecast from the SCAG. Please see Section 4.14, Population and Housing, for an analysis of potential population and housing impacts.

Table 4.11-2
2016-2040 RTP/SCS

2016-2040 RTP/SCS	Analysis
RTP/SCS G1: Align the plan investments and policies with improving regional economic development and competitiveness.	Implementation of the GPU would result in the development of over 17 million square feet of non-residential square footage, an increase of 15,000 employees, and 897 additional hotel/motel rooms. The GPU includes the goal of creating a robust employment base, industrial diversity, and range of goods and services to maintain economic stability (Goal ED-1). This goal includes policies to attract companies to Desert Hot Springs that diversify the local economy and provide jobs (Policy ED-1.6), as well as support retail development (Policy ED-1.2), diversify businesses (Policy ED-1.3), and attract commercial development (Policy ED-1.4).
RTP/SCS G2: Maximize mobility and access for all people and goods in the region.	The GPU includes several goals and policies addressing mobility including: an inclusive mobility framework that safely and efficiently moves and connects people, destinations, vehicles and goods (Goal MI-1); establish and maintain a mobility plan (Policy MI-1.1), and design roadways to accommodate trucks between industrial areas and highways/freeway routes (Policy MI-8.4).
RTP/SCS G3: Ensure travel safety and reliability for all people and goods in the region.	The GPU includes several policies related to safety including design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user (Policy MI-3.1); and enhance roadway safety by maintaining the street system in good to excellent condition (Policy MI-3.2).
RTP/SCS G4: Preserve and ensure a sustainable regional transportation system.	The GPU includes several goals and polices that address sustainability including: consider the use of sustainable and carbon-neutral material when repaving, repairing, or constructing streets and other transportation facilities (Policy MI-5.6); and provide for a sustainable physical infrastructure to support a desirable quality of life (Goal MI-11).
RTP/SCS G5: Maximize the productivity of our transportation system.	Implementation of the GPU would result in the development of over 17 million square feet of non-residential square footage, and increase in 15,000 employees, and 897 hotel/motel rooms. It includes a goal for an inclusive mobility framework that safely and efficiently moves and connects people, destinations, vehicles and goods (Goal MI-1); and design roadways to accommodate trucks between industrial areas and highways/freeway routes (Policy MI-8.4).

RTP/SCS G6: Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	The GPU includes several goals and polices that address the environment and health including: implement development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network (Policy MI-5.1); consider a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development (Policy MI-5.4); and connect to nearby regional designations and facilities to ensure a seamless bicycle and pedestrian network (Policy MI-4.2).
RTP/SCS G7: Actively encourage and create incentives for energy efficiency, where possible.	The GPU includes several policies that address energy efficiency, including: implement regulations and provide incentives that require public and private developments to reduce energy use over the long term (Policy MI-11.11); and encourage energy-efficient design of all new projects (public and private), including appropriate structure orientation and the use of shade trees and other solar control measures to maximize cooling and reduce fossil fuel consumption for heating and cooling (Policy MI-11.1).
RTP/SCS G8: Encourage land use and growth patterns that facilitate transit and active transportation.	The GPU includes several goals and policies related to transit and active transportation, including: encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency, Native American tribes, and other external providers within the City (Policy MI-7.2); require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities such as trash receptacles, signage, seating, shelters, and lighting (Policy MI-7.3); and coordinate all active transportation facilities - connect to nearby regional designations and facilities to ensure a seamless bicycle and pedestrian network (Policy MI-4.2).
RTP/SCS G9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	This goal is not applicable to the GPU.

Existing City of Desert Hot Springs General Plan (2000)
The GPU is a citywide update to and would replace the existing 2000 General Plan. The changes to the Land Use Element include updates to goals, policies, and programs, land use designations, the stated intent of each designation, and certain development standards. The GPU builds upon many of the goals identified in the 2000 General Plan. The 2000 General Plan Land Use goals are listed below: the GPU goals, programs and policies that support the following 2000 General Plan Land Use Element goals are shown in parentheses:

General Land Use Goals

- Goal 1: A balanced mix of functionally integrated land uses meeting general social and economic needs of the community through simplified, compatible and consistent land use and zoning designations. *(General Plan Update Goal LU-1; Policy LU-1.1; Policy LU-1.11; Policy LU-3.1; Policy LU-15.6)*
- Goal 2: A resort residential community of desirable neighborhoods, a complementary employment base and a variety of community facilities. *(General Plan Update Goal LU-5; Policy LU-5.1; Goal LU-1; Policy LU-1.2; Policy LU-2.1; Policy LU-3.2; Goal ED-1; Policy ED-1.2; Policy ED-1.3; Policy LU-3.11; Goal LU-9; Policy LU-9.2)*

Residential Goals

- Goal 1: Preservation and enhancement of the predominantly low density, resort residential character of the City.*(General Plan Update Policy LU-1.3; Policy LU-2.1; Policy LU-2.3; Goal LU-5; Policy LU-5.1)*
- Goal 2: A variety of all housing types and densities that will accommodate existing and future residents of the community.*(General Plan Update Goal LU-2; Policy LU-2.4; Policy LU-2.7)*

Commercial Goal

- Goal: A responsive range of commercial land uses conveniently and appropriately distributed throughout the City, meeting the community's needs and taking full advantage of emerging development and economic opportunities. *(General Plan Update Goal LU-3; Policy LU-3.1; Policy LU-3.2; Policy LU-3.3; Policy LU-3.5)*

Industrial Goal

- Goal: Lands that provide for the development of non-polluting, energy-related and other clean industrial development that broadens the economic and employment base of the City, and assures compatible integration with other, non-industrial land uses. *(General Plan Update Goal OS-4; Policy OS-4.5; Policy OS-4.9)*

Public Facilities Goal

- Goal: Public facilities which are located to efficiently serve the community and are compatible with surrounding land uses. *(General Plan Update Goal LU-9; Policy LU-9.1; Policy LU-9.2; Goal LU-10; Policy LU-10.7)*

Open Space and Conservation Goals:

- Goal 1: Open space areas which protect environmental resources, guard against environmental hazards, provide recreational opportunities and enhanced aesthetic character of the City.*(General Plan Update Goal LU-10; Policy LU-10.1; Policy LU-11.5; Policy LU-10.5; Policy LU-10.6)*

- Goal 2: A land use pattern which preserves the City's resort residential atmosphere, including scenic resources such as hillside and mountain vistas, waterways, and native desert communities.*(General Plan Update Goal LU-10; Policy LU-10.5; Policy LU-10.6)*

The GPU would support the major goals established in the 2000 General Plan. The implementation of the GPU would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

City of Desert Hot Springs Specific Plans
As described above, the City of Desert Hot Springs has several adopted specific plans. Some of the specific plans are outdated and may need to be revised or rescinded. The GPU includes the following policy that addresses specific plans:

- **Policy LU-2.8: Specific Plans.** Update or rescind specific plans that are outdated and do not meet the community goals.

Implementation of the GPU would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

Zoning and Subdivision Ordinances
The zoning ordinance and subdivision ordinance details land use regulations and development standards within the City. Consistent with State law, the Zoning Ordinance would need to be updated to reflect the changes in the GPU. These revisions would ensure that development standards and would be consistent with the development patterns identified within the GPU. The implementation of the GPU would not cause a significant environmental impact due to a conflict with any land use policy adopted for the purpose of avoiding or mitigating an environmental effect.

Level of Significance Before Mitigation:

Less than Significant

Mitigation Measures:

None required

C. Would the project cause substantial adverse cumulative impacts with respect to land use and planning?

Anticipated population growth in Riverside County would result in land use changes at the regional level; the 2016-2040 RTP/SCS anticipates significant population and housing growth within the Riverside County region – and increase of approximately 703,900 residents, 251,900 households, and 325,600 jobs by 2040. Implementation of the GPU would result in the addition of lands designated for future housing units and non-residential square footage, which would help to meet the anticipated regional demand by directing development within the city.

The GPU includes several policies to ensure that long-term sustainable development which consider air quality, health of residents, existing infrastructure networks and services. The GPU also includes goals and policies to balance development with the preservation of environmental systems and the open space areas. Additionally, as specific development projects are proposed under the GPU, site specific environmental evaluations would occur which would evaluate potential environmental impacts, including land use impacts, and identify mitigation measures, if required. The implementation of the GPU would not cause a substantial adverse cumulative impact with respect to land use and planning.

Level of Significance Before Mitigation:

Less than Significant

Mitigation Measures:

None Required

4.11.5 References

Terra Nova Planning and Research, Inc., 2000. *City of Desert Hot Springs Comprehensive General Plan*, Adopted September 5.

Southern California Association of Governments, 2016. *The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy,* April.

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4.12 – Mineral Resources

The following section discusses potential impacts to mineral resources for the Desert Hot Springs General Plan Update (GPU). This section addresses the regulatory framework necessary to evaluate specific impacts resulting from the GPU. This section recommends mitigation measures, if any, for impacts specific to mineral resources concerns.

4.12.1 Environmental Setting

Mineral Resources Defined
Minerals are defined as any naturally occurring chemical elements or compounds, inorganic solids that have their own characteristic chemical composition. Minable minerals or an ‘ore deposit’ is defined as a deposit of ore or a natural concentration of one or more minerals within a host rock having value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area. Generally, a mineral is a single or compound of elements and a rock is an ‘aggregate’ of one or more minerals or a body of undifferentiated mineral matter.

Areas subject to California mineral land classification studies are divided by the State Geologist into various MRZ categories that reflect varying degrees of mineral potential:

1) MRZ-1: Areas were available geologic information indicates that little likelihood exists for the presence of significant mineral resources
2) MRZ-2: Areas of Identified Mineral Resource Significance
3) MRZ-3: Areas of Undetermined Mineral Resource Significance
4) MRZ-4: Areas of Unknown Mineral Resource Significance

Definitions of Key Words:

Mineral Deposit: A mass of naturally occurring mineral material, e.g. metal ores or nonmetallic minerals, usually of economic value, without regard to mode of origin. The mineral material may be of value for its chemical and/or physical characteristics.

Mineral Occurrence: Any ore or economic material in any concentration found in bedrock or as float; especially a valuable mineral in sufficient concentration to suggest further exploration.

Economic: This term implies that profitable extraction or production under defined investment assumptions has been established, analytically demonstrated, or assumed with reasonable certainty.

Mineral Resources: A concentration of naturally occurring solid, liquid, or gaseous material in or on the Earth’s crust in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible.

Reserves: That part of the resource base which could be economically extracted or produced at the time of determination. The term reserves need not signify that extraction facilities are in place and operative. In the case of aggregates the term includes only permitted resources.

Identified Mineral Resources: Resources whose location, grade, quality, and quantity are known or estimated from specific geologic evidence. Identified Mineral Resources include economic, marginally economic, and sub-economic components. To reflect varying degrees of geologic certainty, these economic divisions can be subdivided into demonstrated and inferred.

Demonstrated: A term for the sum of measured plus indicated.

Measured: Quantity is computed from dimensions revealed in outcrops, trench workings, or drill holes; grade and/or quality are computed from the results of detailed sampling. The sites for inspection, sampling, and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth, and mineral content of the resource are well established.

Indicated: Quantity and grade and/or quality are computed from the information similar to that used for measured resources, but the sites for inspection, sampling, and measurement are further apart or otherwise less adequately spaced. The degree of assurance, although lower than that for measured resources, is high enough to assume continuity between points of observation.

Inferred: Estimates are based on an assumed continuity beyond measured and/or indicated resources, for which there is geologic evidence. Inferred resources may or may not be supported by samples or measurements.

Marginal Reserves: That part of the demonstrated reserve base that, at the time of determination, borders on being economically producible. Its essential characteristic is economic uncertainty. Included are resources that would be producible, given postulated changes in economic or technologic factors.

Marginal Resources: That part of the inferred resource base that, at the time of determination, would be economically producible, given postulated changes in economic or technologic factors.

Sub-economic Resources: The part of identified resources that does not meet the economic criteria of marginal resources.

Mineral Resources in the Planning Area

Minerals are an economic commodity, often mined for their potential use or intrinsic value. Because Mineral Resources are so valuable, the California Geological Survey has identified areas of known mineral resources within California. These areas are then further characterized as resource sectors by State Geologist in accordance with the State Mining and Geology Board (SMGB). Mineral Resource Zones (MRZ) are areas based on geologic and economic factors without regard to existing land use and land ownership. The following categories are identified as having a potential for mineral resources:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

The majority of the City has not been designated as an MRZ, which indicates little potential for development of mineral resources. Small portions within the hills along the northern boundaries are designated MRZ-2. The lower portion has been developed as residential uses. The upper portion of the MRZ includes an abandoned concrete mill along Little Morongo Creek, just outside of the Planning Area. The Painted Hills – Super Creek Quarry is located along the western City boundary and mines a decorative mica-flagstone rock. The southern boundary of the Planning Area is adjacent to an area identified as having PCC-grade aggregate; The California Geological Survey has identified areas of known mineral resources within and near the Planning Area. However, the permitted mine (Granite Garnet Pit) associated with this deposit is outside of the Planning Area. Figure 4.12.1 indicates where Mineral Resources can be found inside the Desert Hot Springs Planning Area.

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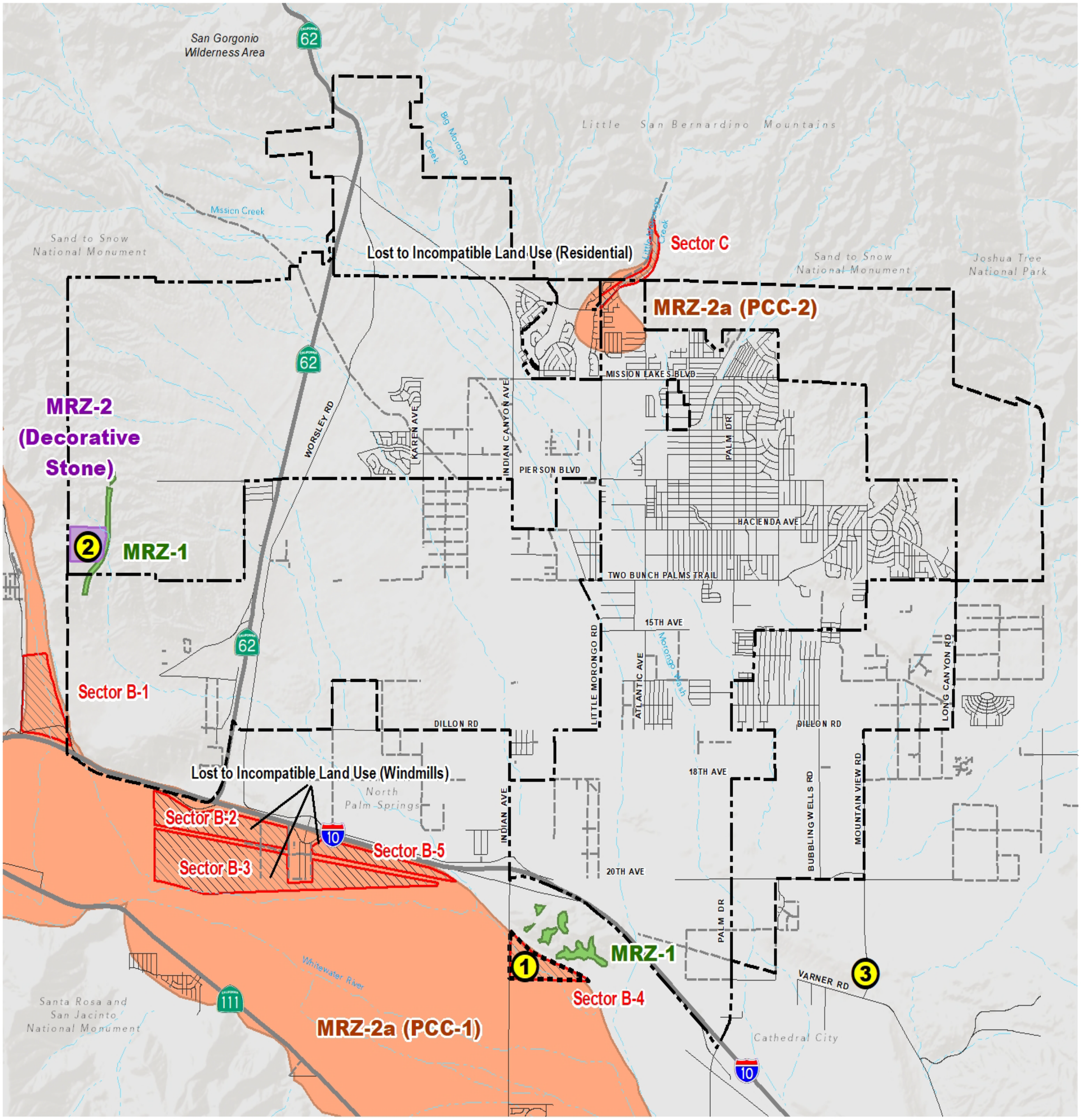

Mineral Resources

Mineral Resource Zone Designations

- MRZ-1
- MRZ-2 (Base, Decorative Stone)
- MRZ-2a (PCC)
- MRZ-3
- Permitted Aggregate Mine Boundary
- Areas designated by the State Mining and Geology Board (1989)

Aggregate Resources

- Regionally significant PCC-grade aggregate resources
- Portions lost to Incompatible Land Use

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

0 0.5 1 2 Miles

Source: Digital General Soil Map of U.S. U.S. Department of Agriculture, Natural Resources Conservation Service, 2016.

Date: July 2019.

Exhibit 4.12.1
Mineral Resources

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4.12.2 Regulatory Framework

Surface Mining and Reclamation Act of 1975
The Surface Mining and Reclamation Act of 1975 (SMARA) was enacted by the California legislature to promote the conservation of the State's mineral resources and to ensure adequate reclamation of mined lands. Among other provisions, SMARA requires the State Geologist to classify land in California into Mineral Resource Zones (MRZ), according to the known or inferred mineral potential of the land. The process is based solely on geology, without regard to existing land use or land ownership. Upon completion of each study, the State Geologist submits the mineral land classification report to the State Mining and Geology Board, which transmits the information to appropriate local governments that maintain jurisdictional authority in mining, reclamation, and related land-use activities. Local governments are required to incorporate the report and maps into their general plans and consider the information when making land use decisions.

SMARA addresses the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. The Act applies to anyone, including government agencies, engaged in surface mining operations in California, including federally managed lands that disturb more than one acre or remove more than 1,000 cubic yards of material cumulatively from one site. Regulated mining activities include prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. The current General Plan incorporates the requirements and mineral classification and designation information of SMARA.

The California Department of Conservation, Division of Mines and Geology (DMG) 'Mineral Land Classification Project' publishes mineral resource maps which have proven to be of value in land use planning and mineral conservation. This is an ongoing process with updates taking place approximately every 10 years. DMG is also in the process of identifying lands throughout the county with the potential for mineral resource recovery and will be used by the County in identifying new mineral resource areas to help ensure their preservation.

Areas subject to California mineral land classification studies are divided by the State Geologist into various MRZ categories that reflect varying degrees of mineral potential. The MRZ nomenclature and criteria adopted by the California State Mining and Geology Board (1983) are graphically portrayed on what is referred to as the California Mineral Land Classification Diagram (Exhibit 4.12-2). The diagram presents a relationship between mineral resource occurrence and economic significance. The horizontal axis of the diagram represents the degree of knowledge about mineral occurrence, and the vertical axis portrays economic characteristics of mineral deposits (grade and size).

Desert Hot Springs General Plan Update
There are no proposed GPU policies related to mineral resources.

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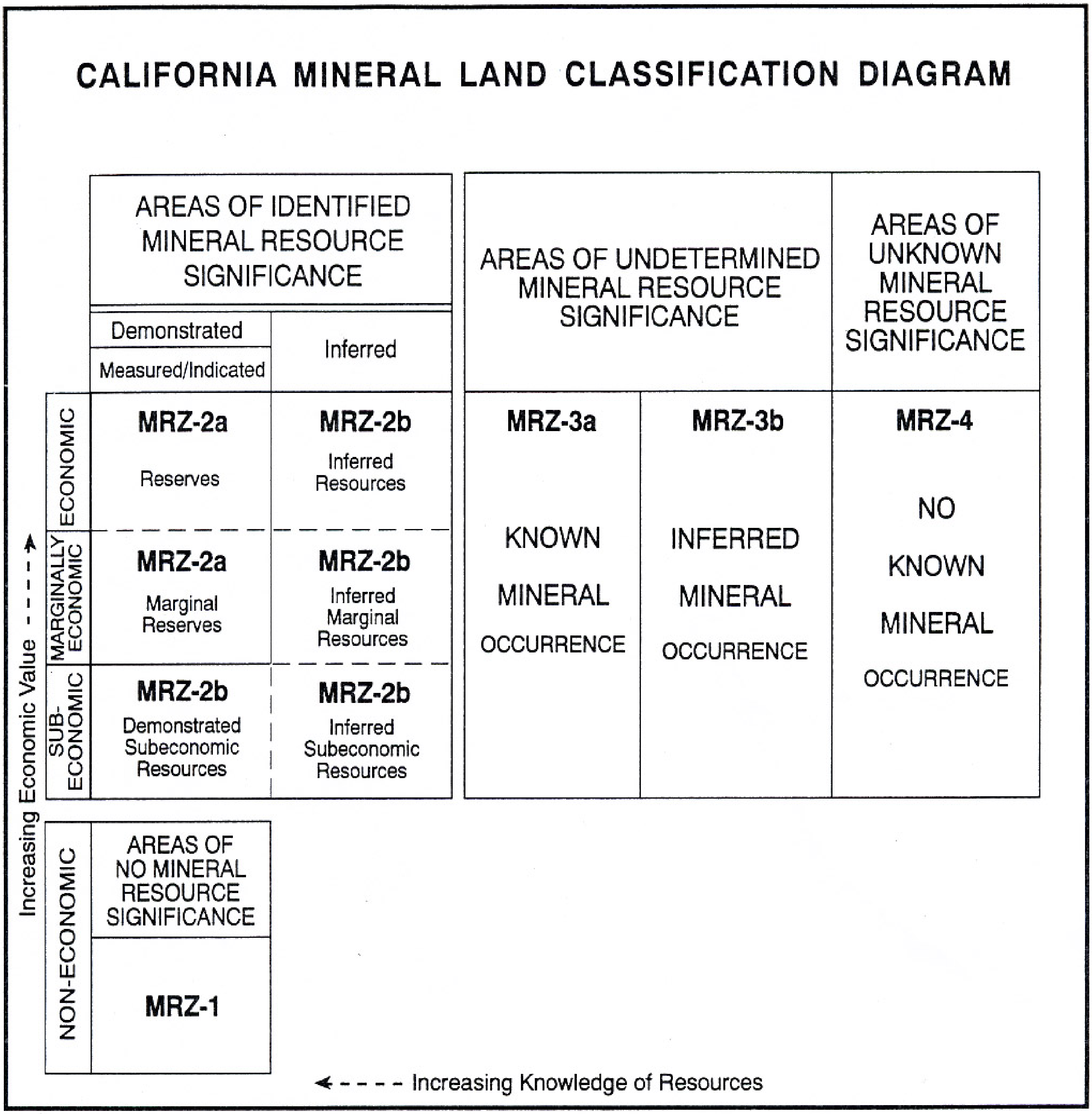
Exhibit 4.12.2
California Mineral Land Classification Diagram



Source: Guidelines for Classification and Designation of Mineral Lands, (Page 5), https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf [Accessed June 26th, 2019]

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4.12.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it would:

A. Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?
B. Result in the loss of availability of a local important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?
C. Would the project cause substantial adverse cumulative impacts with respect to mineral resources?

4.12.4 Environmental Impacts

A. Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

Future development guided by GPU would result in the loss of known statewide, regional, and locally valuable mineral resources if an area was developed above or, potentially, adjacent to the mineral deposits. Most of the Planning Area is designated as having little potential for development of mineral resources. The three key areas where known mineral resources were within or close to the Planning Area will not be substantially impacted.

To the western boundary of the City, the existing quarry that mines decorative stone is not in an area where new development is proposed under the GPU. The existing land use designation is open space and the proposed land use designation is also open space and there will be no change in land use designation which will not impact the current mineral resource operation at the site. Open space land designations are generally compatible with mining operations.

The PCC deposits adjacent to, and south, of the Planning Area will not be impacted by the GPU. The areas adjacent to the identified resource are open space and residential rural desert with less than one dwelling per five acres; these areas are generally across the freeway from the known deposits. Further, the mine is outside of the Planning Area and across I-10 and would not be impacted by development under the GPU.

The third known deposit, on the northern edge of the City contains an abandoned concrete mill. Much of this area is already contains residential development while the northern portion of the PCC deposit along Little Morongo Creek (just outside of the Planning Area), would not be developed under the GPU. As such, there would be no change under the GPU to this deposit.

A less than significant impact to the availability of known mineral resources of value to the region or State will occur as a result of implementation of the proposed GPU.

Level of Significance Before Mitigation

Less Than Significant Impact

Mitigation Measures

No mitigation is required

B. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The existing Desert Hot Springs General Plan and the Riverside County General Plan do not identify any locally important mineral resources. No other planning documents identify any locally important mineral resources. No impacts to locally important mineral resources could occur as a result of the implementation of the proposed GPU.

No impact to the availability of known mineral resources of value to the region or State will occur as a result of implementation of the proposed GPU.

Level of Significance Before Mitigation

No Impact

Mitigation Measures

No mitigation is required

C. Would the project cause substantial adverse cumulative impacts with respect to mineral resources?

The GPU would result in additional population growth and development in the Planning Area; however, this would not result in a substantial loss of mineral resources. Although there are limited known mineral resources in the area, future development projects in the area will not result in a significant impact to mineral resources because the areas targeted for development in the Planning area do not conflict with the existing mineral resources and/or the existing mineral resource already is developed with residential uses.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation is required.

4.12.5 References

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California Department of Conservation (1989). SMARA Designation Report 10. Designation of Regionally Significant Construction Aggregate Resources in the Palm Springs Production-Consumption Region.

Desert Hot Springs General Plan 2000, https://www.cityofdhs.org/planning-documents [Accessed June 26, 2019]

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4.13 – Noise

The following section of the EIR provides pertinent background information on the nature of sound and vibration transmission; describes the existing noise environment in the Planning Area; summarizes applicable noise guidelines, standards, and regulations; and evaluates potential noise and vibration impacts that could result from implementation of the Desert Hot Springs General Plan Update (GPU). Where necessary, this section includes mitigation measures that would reduce noise and vibration impacts associated with the Project.

4.13.1 Environmental Setting

Fundamentals of Environmental Acoustics

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as “noisy” or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, and so on. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels\ \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 *\ 10\,log\left(10^{\left(\frac{50}{10}\right)} +\ 10^{\left(\frac{50}{10}\right)}\right) = 53\ decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz, most of the sounds humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level," filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 4.13-1 for a list common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level (L_{eq}) descriptor is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the L_{01}, L_{10}, L_{50}, and L_{90} descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The L_{90} value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or L_{dn}), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods.

Table 4.13-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans 2013a

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its “sound power level.” Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called “excess attenuation.” Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person’s subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the “ambient” noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Groundborne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

Wind Turbines

Wind turbines generate two types of noise: aerodynamic and mechanical. The significance of a turbine's noise impact is a combination of both. The blades passing through the air generate aerodynamic noise, and the turbine's internal gears and components gene-rate mechanical noise. Large-scale turbines used by utilities are insulated to prevent mechanical noise from proliferating outside the nacelle (cover housing) or tower. Smaller residential turbines are more likely to produce noticeable mechanical noise due to inadequate insulation. The magnitude of aerodynamic noise is related to the ratio of the blade tip speed to wind speed and corresponds to the generation of power.

Depending on the turbine model and the wind speed, aerodynamic noise can generate a whooshing or pulsing effect. Most noise radiates perpendicular to the blades' rotation. However, since turbines rotate to face the wind, they may radiate noise in different directions each day. Wind turbines generate broadband noise with frequency components from 20 hertz to 3.6 kilohertz. The frequency components vary with pitch of the blade and wind and blade speed. The "swish-swish" sound is the high-frequency noise of blade tip turbulence; it does not contain low frequencies. Large variable-speed wind turbines often rotate at slower speeds in low winds and increase in higher winds until the limiting rotor speed is reached. This results in much quieter operation in low winds than comparable constant-speed wind turbines (BLM 2014).

4.13.2 Existing Noise and Vibration Environment

The City's existing General Plan identifies the primary contributors to the city's noise environment as coming from motor vehicles, freight rail, and aircraft overflights. Other sources of community noise include mechanical equipment serving commercial land uses and other larger operations.

The principal noise source within the Planning Area is from vehicular traffic, including automobiles, trucks, buses, and motorcycles. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic speed. In addition to traffic along Highway 62 and the other major arterial roadways impacting the City, the sphere areas of the community are also impacted by rail and vehicular traffic associated with the Southern Pacific Railroad line and U.S. Interstate-10, respectively. While the passage of trains is an intrusive noise event, it occurs only periodically and is limited in duration. The influence of traffic noise of Interstate-10 is more significant and increases at night with persistent truck volumes combined with occasional atmospheric temperature inversions, which tend to reduce the acoustic attenuation typical of distance over open terrain.

Aircraft noise impacting the community emanates from commercial and general aviation operations at the Palm Springs International Airport, located south of the Planning Area.

The existing General Plan indicates industrial operations related to such activities as rock crushing, construction and automotive repair can create substantial noise. Other industrial activities, such as loading and material transfer areas can also be large sources of noise.

Natural sounds are also part of the ambient noise environment. In undeveloped and rural areas, the sound of wind flowing through vegetation is often dominant. Wind-induced noise includes broadband turbulent noise (e.g., wind interaction with natural and anthropogenic structure) and aeolian noise (tones or whistles that vary in frequency with the wind speed). While several factors influence the sound level generated by wind flowing over vegetation, the total magnitude of wind-generated noise depends more on the size of the windward surface of the vegetation than the foliage density (BLM 2014).

Measured Ambient Noise Levels

The existing ambient noise levels in the Planning Area were monitored in May 2019 (MIG 2019; see Appendix E). Ambient noise levels were measured with three Larson Davis SoundTrack LxT Type 1 sound level meters. Ambient noise measurements were collected in 10-minute intervals. Conditions during the monitoring were generally clear and sunny during the daytime, with a daily high of approximately 65 degrees. Winds from the west-northwest were persistent during the monitoring effort, averaging approximately 25 miles per hour during the daytime and approximately 40 miles per hour during the nighttime. At a nearby meteorological station slightly west of the Planning Area, gusts were observed during the nighttime hours of up to 53 miles per hour (NWS 2019). These high wind speeds contributed to measured, ambient noise levels during the monitoring effort.

The ambient noise monitoring conducted for this EIR included two long-term (LT) and five short-term (ST) measurements at locations selected to:

- Provide direct observations of existing noise sources in an in the vicinity of the Planning Area;
- Determine ambient noise levels in and in the vicinity of the Planning Area; and
- Evaluate potential project noise levels at nearby sensitive receptors (see “Noise Sensitive Receptors” below).

The ambient noise monitoring locations are shown on Figure 4.13-1 and described below.

- **Location LT-1** was at the corner of San Gorgonio Street and Bubbling Wells Road, near Bubbling Wells Elementary School, in the southeastern portion of the city. The ambient noise levels measured at LT-1 are considered representative of 24-hour noise exposure levels in rural-residential areas of the city.
- **Location LT-2** was along North Indian Canyon Drive, approximately 370 feet north of Scenic Drive, in the middle of the Planning Area. The ambient noise levels measured at LT-2 are considered representative of 24-hour noise exposure levels along arterial roadways in the center, undeveloped portions of the Planning Area.
- **Location ST-1** was at the northeast corner of Cactus Drive and 1st Street, in the middle of the Planning Area. The ambient noise levels measured at location ST-1 are considered representative of background daytime noise levels along collector roadways in residential portions of the city.
- **Location ST-2** was at the northeast corner of Sonora Drive and Via Del Sol, in the northern portion of the Planning Area. The ambient noise levels measured at ST-2 are considered representative of background daytime noise levels in somewhat developed portions of the city, near schools.
- **Location ST-3** was near the intersection of Painted Hill Road and Salton View Road, in the western portion of the Planning Area. The ambient noise levels measured at ST-3 are considered representative of background daytime noise levels in exposed, rural-residential portions of the Planning Area closer to Banning Pass, which can experience higher winds than other portions of the Planning Area.
- **Location ST-4** was at the intersection of 20th Avenue and Power Line Road, in the southern portion of the Planning Area. The ambient noise levels measured at ST-4 are considered representative of background daytime noise levels in southern, undeveloped portions of the Planning Area. The hum of the electrical utility infrastructure was audible at location ST-4.
- **Location ST-5** was along the northern portion of Club Circle Drive, in the eastern portion of the Planning Area. The ambient noise levels measured at ST-5 are considered representative of background daytime noise levels in the eastern, resort / residential portion of the city. Winds were much calmer at this location. The calmer winds at ST-5 are likely due to structures throughout the city help slow the wind as it progresses eastward.

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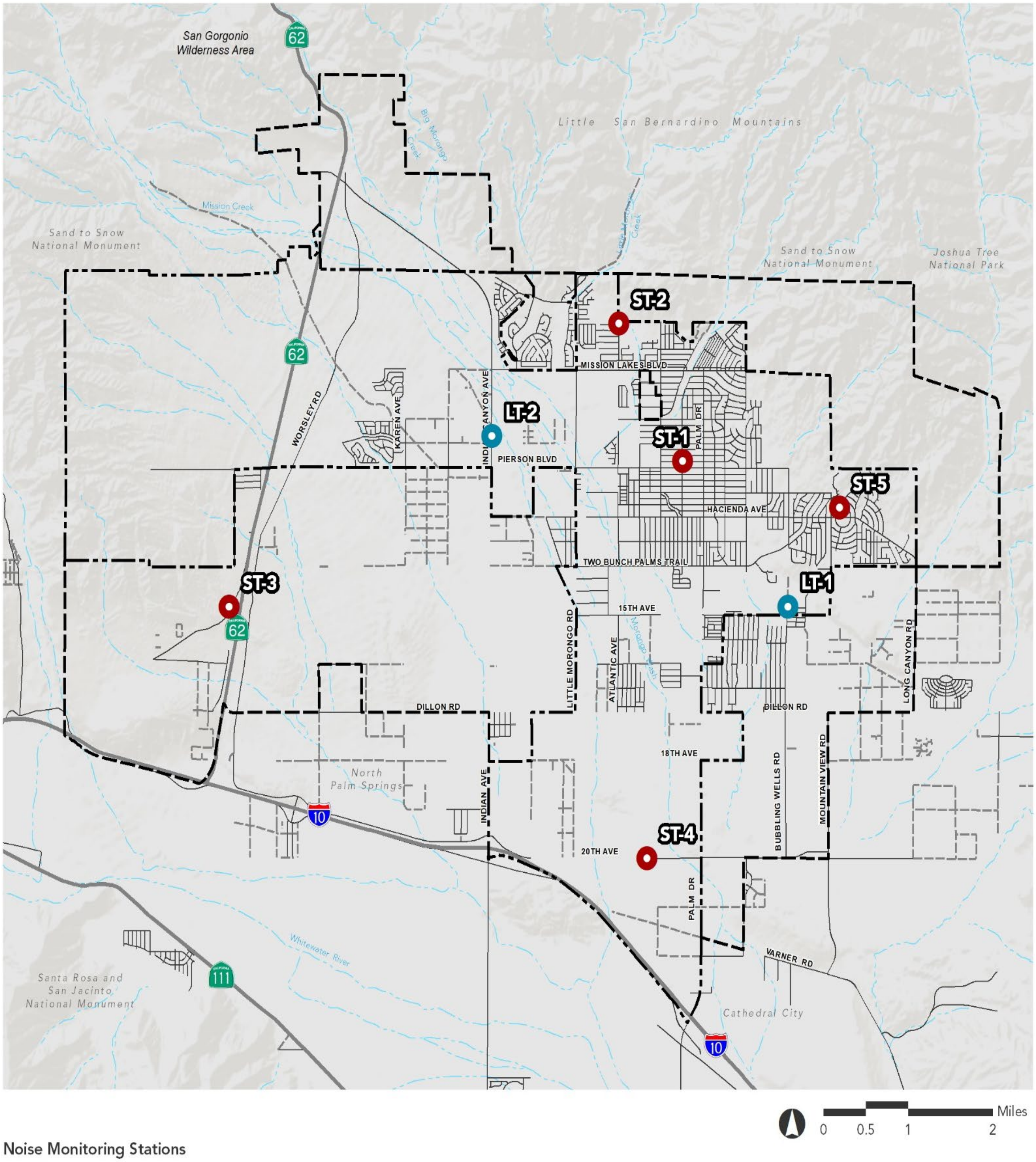

Noise Monitoring Stations

Long-Term Station

Short-Term Station

Base Map Features

City Boundary

Sphere of Influence

Water Courses

Source: MIG, 2019.

Date: October 2019.

Exhibit 4.13-1: Ambient Noise Monitoring Locations

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Based on observations made during the ambient noise monitoring, the existing noise environment in the Planning Area consists primarily of localized and regional transportation noise sources (i.e., cars on local roads and main thoroughfares, such as Highway 62 and Indian Canyon Drive). High winds were also observed to be a major contributor to ambient noise measurements in the Planning Area. Table 4.13-2 summarizes the results of the ambient noise monitoring conducted for this EIR.

Table 4.13-1
Existing Ambient Noise Levels (dBA) in the Planning Area

Monitoring Site	Duration	L_{min}	L_{max}	L_{eq} Range			CNEL
				Daytime (7 AM - 7 PM)	Evening (7 PM - 10 PM)	Nighttime (10 PM - 7 AM)	
LT-1	24 Hours	34.1	88.2	47.3 – 61.6	52.3 – 61.1	42.9 – 53.7	59.3
LT-2	24 Hours	34.1	100.6	71.8 – 75.2	71.1 – 73.3	63.7 – 72.8	76.6
ST-1	30 Minutes	46.1	74.9	60.9 – 62.1	N/A[(A)]	N/A[(A)]	N/A[(A)]
ST-2	30 Minutes	38.2	67.5	48.0 – 50.2	N/A[(A)]	N/A[(A)]	N/A[(A)]
ST-3	30 Minutes	46.9	76.5	55.0 – 59.7	N/A[(A)]	N/A[(A)]	N/A[(A)]
ST-4	20 Minutes	50.9	77.7	63.3	N/A[(A)]	N/A[(A)]	N/A[(A)]
ST-5	30 Minutes	44.5	62.1	49.0 – 50.0	N/A[(A)]	N/A[(A)]	N/A[(A)]

Source: MIG 2019 (see Appendix E)
(A) Data is not available for these noise metrics because noise data was not collected for the time period in question or the noise metric was not available for use in this table.

As shown in Table 4.13-2, daytime noise levels were generally lowest in the northern and eastern portions of the Planning Area (LT-1, ST-2, and ST-5), and highest near major roads and the western portion of the Planning Area (LT-2 and ST-4). Measured noise levels were the highest along North Indian Canyon Drive (LT-2). Though measurement location ST-4 was only approximately 600 feet from Highway 62, very little transportation noise was observed at this location. This is likely due to the high wind conditions at that location, which blew due east.[1]

Existing Traffic Noise Levels

Existing (Year 2019) traffic noise levels were computed using the U.S. Department of Transportation Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 2.5. The model uses traffic volume, vehicle mix, vehicle speed, roadway geometry, and other variables to compute 24-hour traffic noise levels at user-defined receptor distances from the roadway center. The TNM modeling conducted for this EIR incorporates worst-case assumptions about motor vehicle traffic and noise levels; specifically, calculations are based on "hard" site conditions and do not incorporate any natural or artificial shielding.

Information on existing average daily traffic volumes was obtained from City traffic speed surveys (Desert Hot Springs 2018), the traffic impact analysis (TIA) prepared for the Project (Ganddini Group, Inc. 2019), and Caltrans traffic count information (for SR 62 and I-10; Caltrans 2012, 2013c, 2017a, and 2017b). Traffic noise levels were estimated for typical daytime (7 AM to 7 PM), evening (7 PM to 10 PM), and nighttime (10 PM to 7 AM) hours using hourly distribution assumptions recommended by the Riverside County Department of Environmental Health

[1] Wind speed can bend the path of sound to "focus" it on the downwind side and create a "shadow" on the upwind side of the source. At short distances, the wind has a minor influence on the measured sound level. For long distances, wind effects become measurably greater.

(Riverside County 2015). Hourly traffic noise levels were then summed to derive the 24-hour CNEL along modeled roadway segments. The mix of automobiles, medium trucks, and heavy duty trucks assigned to the roadway system varied according to the type of roadway modeled (e.g., collector, arterial), but was assumed to be consistent with Riverside County recommendations for daily traffic vehicle class distributions (Riverside County 2015). Due to the number of roadway segments identified for modeling, truck trips were converted to estimates of equivalent vehicles using FHWA and Caltrans scaling factors (Caltrans 2013a, pg. 3-19). In addition, not all roadway segments were modeled using TNM. Rather, where roadway geometry, traffic mix and distribution, and vehicle speed variables were constant between roadway segments, the resulting change in traffic noise levels attributable to differences was estimated using computational equations (Caltrans 2013a, pg. 2-12). Vehicles were assumed to travel the higher of either the average recorded speed limit (from City speed surveys) or the posted speed limit on each modeled roadway segment. Existing traffic noise contours are shown in Figure 4.13-2 (Existing Traffic Noise Contours). The distances to the CNEL contours for the roadway are shown in Table 4.13-3. Please refer to Appendix E for detailed information on existing traffic noise modeling assumptions.

The results of the traffic noise modeling indicate that existing traffic noise levels within the Planning Area are highest along Indian Canyon Drive, Little Morongo Road, Palm Drive (south of Pierson Boulevard), Mountain View Road (south of Dillon Road), Pierson Boulevard, and Dillon Road. Specifically, the modeling shows:

- Traffic noise levels along Indian Canyon Drive are estimated to be approximately 68 to 72 CNEL at a distance of 100 feet from the center of the roadway. A mix of open space, commercial, and residential land uses (single family and mobile home) are present along Indian Canyon Drive. The estimated traffic noise levels exceed the City’s conditionally acceptable noise exposure levels contained in the existing General Plan for residential and commercial land uses (65 CNEL).
- Traffic noise levels along Little Morongo Road, between Two Bunch Palms Trail and Dillon Road, are estimated to be approximately 69 CNEL at a distance of 100 feet from the center of the roadway. Limited commercial and residential land uses are present along this segment of Little Morongo Road. The estimated traffic noise levels exceed the City’s conditionally acceptable noise exposure levels contained in the existing General Plan for residential and commercial land uses (65 CNEL).
- Traffic noise levels along Palm Drive, south of Pierson Boulevard, are estimated to be approximately 65 to 76 CNEL at a distance of 100 feet from the center of the roadway. A mix of office, commercial, open space, and limited residential land uses (single family) are present along this portion of Palm Drive. The estimated traffic noise levels exceed the City’s conditionally acceptable noise exposure levels contained in the existing General Plan for residential and commercial land uses (65 CNEL).
- Traffic noise levels along Mountain View Road, between Dillon Road and Varner Road, are estimated to be approximately 70 to 71 CNEL at a distance of 100 feet from the center of the roadway. Residential land uses are present along this portion of Mountain View Road. The estimated traffic noise levels exceed the City’s generally unacceptable noise exposure level contained in the existing General Plan for residential a land uses (70 CNEL).

- Traffic noise levels along Pierson Boulevard, between Indian Canyon Road and Palm Drive, are estimated to be approximately 61 to 68 CNEL at a distance of 100 feet from the center of the roadway. A mix of commercial, school, open space, and residential land (single family and mobile home) land uses are present along this portion of Pierson Boulevard. The estimated traffic noise levels exceed the City's conditionally acceptable noise exposure levels contained in the existing General Plan for commercial, school, and residential land uses (65 CNEL).
- Traffic noise levels along Dillon Road, east of Indian Canyon Drive, are estimated to be approximately 70 to 71 CNEL at a distance of 100 feet from the center of the roadway. This roadway is largely vacant, although a limited mix of commercial, office, and residential land (single family and mobile home) land uses are present along this portion of Dillon Road. The estimated traffic noise levels exceed the City's generally unacceptable noise exposure levels contained in the existing General Plan for office, commercial, and residential a land uses (70 CNEL).

Future Baseline Traffic Noise Levels
The TIA prepared for the Project includes an analysis of future traffic conditions that would occur in Year 2040 based on implementation of the current General Plan and the land use development intensities permitted by the current General Plan.

The future baseline Year 2040 traffic noise levels were estimated using the same general methodology as described for the existing 2019 traffic noise analysis. Traffic noise levels computed using TNM, Version 2.5 and the same roadway geometry factors assumed for 2019 traffic noise levels, unless new roads were planned for construction or existing roads were improved and reclassified (e.g., from collector to arterial). The distances to the CNEL contours for the roadway are shown in Table 4.13-4. Please refer to Appendix E for detailed information on future baseline traffic noise modeling assumptions. The increase in traffic generally increased noise levels by approximately 2 to 5 dBA for most modeled roadway segments, although in some cases where roadway improvements expanded travel lanes the increase in traffic noise would be as much as 21 dBA.

Other Non-Transportation Noise Sources
Non-transportation sources also contribute to the Planning Area's existing noise environment. Commercial and industrial land uses located throughout the Planning Area (but primarily along roadways like Palm Drive and Dillon Road), schools, outdoor park and recreation facilities, and residential land uses generate noise from daily operations of landscaping equipment, stationary sources such as heating, ventilation, and air conditions (HVAC) equipment, business deliveries, solid waste pickup services, and other common activities. Such sources are considered a local source of noise that influence only the immediate surroundings.

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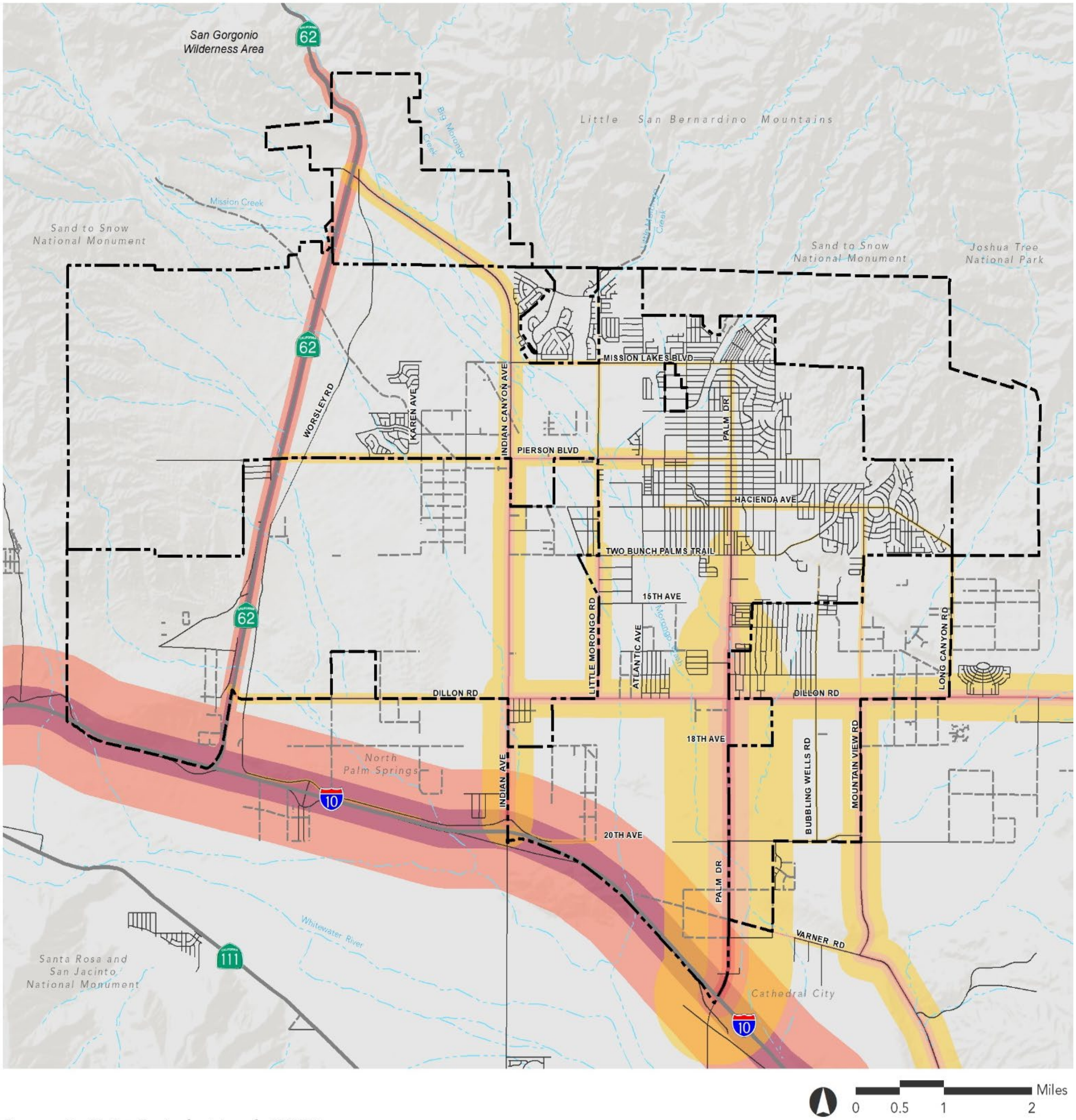

Source: MIG, 2019.

Date: October 2019.

Community Noise Equivalent Levels (CNEL)

Existing Noise Contours (2019)

- 75 CNEL
- 70 CNEL
- 65 CNEL
- 60 CNEL

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

Exhibit 4.13-2: Existing 2019 Traffic Noise Contours

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Table 4.13-3
Existing (2019) Traffic Noise Level Contour Distances

ID	Road	Segment	CNEL at 100 Feet (dBA)(A)	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	51.5	1	4	14	44
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	49.2	1	3	8	26
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	50.0	1	3	10	31
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	50.0	1	3	10	31
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	51.0	1	4	13	40
1F	Worsley Rd	Dillon Rd to 20th Ave	53.9	2	8	24	77
2A	Oasis Dr(B)	13th Ave to 14th Ave	-	-	-	-	-
3A	Diablo Rd	14th Ave to Dillon Rd	51.8	2	5	15	48
4A	Karen Ave(B)	Indian Canyon Dr to 10th Ave	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	46.8	0	2	5	15
4C	Karen Ave(B)	Pierson Blvd to 13th Ave	-	-	-	-	-
4D	Karen Ave(B)	13th Ave to 14th Ave	-	-	-	-	-
4E	Karen Ave(B)	14th Ave to Dillon Rd	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	68.2	66	208	658	2,080
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	67.5	56	178	564	1,784
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	67.5	56	178	564	1,784
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	68.7	73	232	733	2,319
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	69.9	98	311	983	3,108
5F	Indian Canyon Dr	13th Ave to 14th Ave	70.0	100	317	1,001	3,166
5G	Indian Canyon Dr	14th Ave to Dillon Rd	69.8	96	304	962	3,041
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	71.9	154	486	1,537	4,859
6A	Little Morongo Rd	North of Mission Lakes Blvd	56.3	4	14	43	135
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	61.2	13	42	132	417
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	63.7	23	74	235	742
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	64.4	27	87	274	866
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	69.0	79	251	792	2,505
6F	Little Morongo Rd(B)	Dillon Rd to 20th Ave	-	-	-	-	-
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	56.2	4	13	41	131
7B	West Dr	Pierson Blvd to Hacienda Ave	57.5	6	18	57	180
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	59.4	9	28	87	276
8A	Palm Dr	North of Mission Lakes Blvd	43.5	0	1	2	7
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	62.9	20	62	197	623

ID	Road	Segment	CNEL at 100 Feet (dBA)[(A)]	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
8C	Palm Dr	Pierson Blvd to Hacienda Ave	65.5	36	113	357	1,130
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	66.9	49	156	492	1,555
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	71.6	145	457	1,445	4,571
8F	Palm Dr	Camino Campanero to Camino Aventura	72.8	190	600	1,898	6,002
8G	Palm Dr	Cam. Aventura to Dillon Rd	74.9	308	972	3,075	-[(D)]
8H	Palm Dr	Dillon Rd to I-10 Freeway	75.9	385	1,219	3,855	-[(D)]
9A	Bubbling Wells Rd	North of Dillon Rd	58.8	8	24	75	237
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	59.2	8	26	84	264
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	61.8	15	48	153	483
10B	Mountain View Rd	Dillon Rd to 20th Ave	70.4	109	345	1,091	3,451
10C	Mountain View Rd	20th Ave to Varner Rd	70.8	120	379	1,200	3,794
11A	Long Canyon Rd	North of Dillon Rd	62.5	18	56	178	563
12A	10th Ave[(B),(C)]	SR-62 to Worsley Rd	-	-	-	-	-
12B	10th Ave[(B),(C)]	Worsley Rd to Karen Rd	-	-	-	-	-
12C	10th Ave[(B),(C)]	Karen Rd to Indian Canyon Dr	-	-	-	-	-
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	62.4	17	55	174	549
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	61.6	14	46	145	458
12F	Mission Lakes Blvd	West Dr to Palm Dr	59.5	9	28	88	279
13A	Pierson Blvd	SR-62 to Worsley Rd	63.9	25	78	245	776
13B	Pierson Blvd	Worsley Rd to Diablo Rd	64.6	29	91	287	907
13C	Pierson Blvd	Diablo Rd to Karen Ave	64.6	29	91	287	907
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	64.1	26	81	257	812
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	66.4	44	139	439	1,389
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	67.8	60	191	605	1,912
13G	Pierson Blvd	Atlantic Ave to West Dr	66.9	49	154	488	1,542
13H	Pierson Blvd	West Dr to Palm Dr	61.0	13	40	127	402
13I	Pierson Blvd	Palm Dr to Miracle Hill	56.6	5	14	45	144
14A	13th Ave[(B),(C)]	Diablo Rd to Karen Ave	-	-	-	-	-
14B	13th Ave[(B),(C)]	Karen Ave to Indian Canyon Dr	-	-	-	-	-
14C	13th Ave[(B),(C)]	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	-	-	-	-	-
14E	Hacienda Ave	Cholla Dr to Palm Dr	61.8	15	48	150	476
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	60.9	12	39	124	393
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	62.3	17	54	170	539
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	62.3	17	54	170	539
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	63.5	22	71	223	706
14J	Hacienda Ave	East of Mountain View Rd	60.1	10	32	101	321

ID	Road	Segment	CNEL at 100 Feet (dBA)[A]	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
15A	14th Ave[B],[C]	SR-62 to Worsley Rd	-	-	-	-	-
15B	14th Ave[B],[C]	Worsley Rd to Diablo Rd	-	-	-	-	-
15C	14th Ave[B],[C]	Diablo Rd to Karen Ave	-	-	-	-	-
15D	14th Ave[B],[C]	Karen Ave to Indian Canyon Dr	-	-	-	-	-
15E	14th Ave[B],[C]	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-
15F	2 Bunch Palms Tr	Little Morongo Rd to Cabot Dr	60.9	12	39	123	388
15G	2 Bunch Palms Tr	Cabot Dr to Cholla Dr	60.9	12	39	123	388
15H	2 Bunch Palms Tr	Cholla Dr to West Dr	60.9	12	39	123	388
15I	2 Bunch Palms Tr	West Dr to Palm Dr	59.5	9	28	90	284
15J	2 Bunch Palms Tr	East of Palm Dr	57.5	6	18	57	180
16A	Dillon Rd	SR-62 to Worsley Rd	64.8	30	95	301	953
16B	Dillon Rd	Worsley Rd to Diablo Rd	64.6	29	91	288	912
16C	Dillon Rd	Diablo Rd to Karen Ave	64.9	31	97	308	973
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	64.4	28	87	275	870
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	70.2	104	329	1,042	3,294
16F	Dillon Rd	Little Morongo Rd to Palm Dr	70.3	108	340	1,076	3,401
16G	Dillon Rd	Palm Dr to Mountain View Rd	70.5	112	355	1,123	3,550
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	70.6	116	366	1,158	3,661
16I	Dillon Rd	East of Long Canyon Rd	71.3	134	423	1,337	4,227
17A	20th Ave	Worsley Rd to Diablo Rd	59.4	9	27	87	274
17B	20th Ave	Diablo Rd to Karen Ave	59.4	9	27	87	274
17C	20th Ave	Karen Ave to Indian Canyon Dr	55.2	3	11	33	105
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	61.2	13	42	133	420
17E	20th Ave	Little Morongo Rd to Palm Dr	-	-	-	-	-
17F	20th Ave[B]	Palm Dr to Mountain View Rd	61.2	13	42	133	420
18A	Varner Rd	Mihaylo Rd to Palm Dr	45.5	0	1	4	11
18B	Varner Rd	Palm Dr to Mountain View Rd	63.3	21	67	212	669
18C	Varner Rd	East of Mountain View Rd	71.1	129	408	1,290	4,079
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	50.5	1	4	11	35
20	SR-62	I-10 to Indian Canyon Drive	76.6	457	1,446	4,573	-[D]
21	I-10	SR-62 to Date Palm Drive	85.1	3,254	-[D]	-[D]	-[D]

Source: Ganddini Group, Inc. 2019, Caltrans 2017a, Caltrans 2017b, and MIG 2019 (see Appendix E)
(A) All CNEL values at listed distances are measured from the center of the modeled roadway.
(B) "-" indicates the roadway segment does not exist for the modeled scenario.
(C) 10th, 13th, and 14th Avenues become part of Mission Lakes Boulevard, Hacienda Avenue, and Two Bunch Palms Trail, respectively, under future conditions.
(D) Distances to these contours are more than 1.5 miles and are not presumed to be representative due to topographic and meteorological effects on sound propagation at these distances.

Table 4.13-4
Future (2040) Existing General Plan Traffic Noise Level Contour Distances

ID	Road	Segment	CNEL at 100 Feet (dBA)(A)	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	52.9	2	6	19	61
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	67.1	52	163	516	1,632
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	62.4	17	55	174	551
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	62.4	17	55	174	551
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	69.6	90	286	904	2,858
1F	Worsley Rd	Dillon Rd to 20th Ave	66.4	44	138	436	1,378
2A	Oasis Dr(B)	13th Ave to 14th Ave	58.5	7	22	71	225
3A	Diablo Rd	14th Ave to Dillon Rd	61.3	14	43	136	430
4A	Karen Ave(B)	Indian Canyon Dr to 10th Ave	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	-	-	-	-	-
4C	Karen Ave(B)	Pierson Blvd to 13th Ave	-	-	-	-	-
4D	Karen Ave(B)	13th Ave to 14th Ave	-	-	-	-	-
4E	Karen Ave(B)	14th Ave to Dillon Rd	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	72.3	169	535	1,691	5,347
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	72.0	158	501	1,583	5,005
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	72.0	159	504	1,594	5,041
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	72.2	166	524	1,657	5,241
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	73.5	226	715	2,260	7,148
5F	Indian Canyon Dr	13th Ave to 14th Ave	73.7	233	738	2,332	7,376
5G	Indian Canyon Dr	14th Ave to Dillon Rd	74.8	302	955	3,021	-(D)
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	77.0	497	1,570	4,966	-(D)
6A	Little Morongo Rd	North of Mission Lakes Blvd	58.2	7	21	66	209
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	66.0	40	126	398	1,258
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	66.6	45	143	453	1,431
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	66.9	49	154	485	1,535
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	73.2	208	658	2,080	6,578
6F	Little Morongo Rd	Dillon Rd to 20th Ave	71.3	134	423	1,337	4,227
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	62.1	16	51	162	512
7B	West Dr	Pierson Blvd to Hacienda Ave	62.6	18	58	184	582
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	62.6	18	58	184	582
8A	Palm Dr	North of Mission Lakes Blvd	50.4	1	3	11	35
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	68.6	72	228	722	2,282

ID	Road	Segment	CNEL at 100 Feet (dBA)(A)	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
8C	Palm Dr	Pierson Blvd to Hacienda Ave	68.1	64	203	642	2,030
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	69.4	87	274	866	2,739
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	76.8	476	1,506	4,763	-(D)
8F	Palm Dr	Camino Campanero to Camino Aventura	77.7	583	1,845	5,833	-(D)
8G	Palm Dr	Cam. Aventura to Dillon Rd	78.2	665	2,103	6,652	-(D)
8H	Palm Dr	Dillon Rd to I-10 Freeway	77.7	593	1,876	5,931	-(D)
9A	Bubbling Wells Rd	North of Dillon Rd	60.6	11	36	114	361
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	61.9	16	49	156	494
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	71.6	144	455	1,438	4,547
10B	Mountain View Rd	Dillon Rd to 20th Ave	74.2	261	826	2,611	-(D)
10C	Mountain View Rd	20th Ave to Varner Rd	74.7	295	933	2,951	-(D)
11A	Long Canyon Rd	North of Dillon Rd	61.5	14	44	140	444
12A	10th Ave(C)	SR-62 to Worsley Rd	52.9	2	6	20	62
12B	10th Ave(C)	Worsley Rd to Karen Rd	63.3	21	67	212	671
12C	10th Ave(C)	Karen Rd to Indian Canyon Dr	64.9	31	97	306	969
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	64.5	28	89	282	891
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	63.1	20	65	204	646
12F	Mission Lakes Blvd	West Dr to Palm Dr	60.3	11	34	108	341
13A	Pierson Blvd	SR-62 to Worsley Rd	71.7	147	466	1,473	4,658
13B	Pierson Blvd	Worsley Rd to Diablo Rd	71.3	133	422	1,334	4,217
13C	Pierson Blvd	Diablo Rd to Karen Ave	71.1	129	409	1,292	4,086
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	70.7	117	369	1,166	3,686
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	70.3	107	337	1,067	3,373
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	71.6	145	459	1,450	4,587
13G	Pierson Blvd	Atlantic Ave to West Dr	69.8	95	301	951	3,007
13H	Pierson Blvd	West Dr to Palm Dr	69.8	95	301	951	3,007
13I	Pierson Blvd	Palm Dr to Miracle Hill	65.7	37	117	370	1,169
14A	13th Ave(B),(C)	Diablo Rd to Karen Ave	-	-	-	-	-
14B	13th Ave(B),(C)	Karen Ave to Indian Canyon Dr	-	-	-	-	-
14C	13th Ave(C)	Indian Canyon Dr to Little Morongo Rd	61.0	13	40	125	395
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	63.2	21	66	210	664
14E	Hacienda Ave	Cholla Dr to Palm Dr	65.8	38	120	381	1,204
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	65.4	34	109	344	1,087
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	65.4	34	109	344	1,087
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	65.4	34	109	344	1,087
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	65.4	34	109	344	1,087
14J	Hacienda Ave	East of Mountain View Rd	66.0	40	126	398	1,257

ID	Road	Segment	CNEL at 100 Feet (dBA)(A)	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
15A	14th Ave(B),(C)	SR-62 to Worsley Rd	-	-	-	-	-
15B	14th Ave(B),(C)	Worsley Rd to Diablo Rd	-	-	-	-	-
15C	14th Ave(B),(C)	Diablo Rd to Karen Ave	-	-	-	-	-
15D	14th Ave(B),(C)	Karen Ave to Indian Canyon Dr	-	-	-	-	-
15E	14th Ave(C)	Indian Canyon Dr to Little Morongo Rd	60.6	11	36	114	361
15F	2 Bunch Palms Tr	Little Morongo Rd to Cabot Dr	66.8	47	150	473	1,497
15G	2 Bunch Palms Tr	Cabot Dr to Cholla Dr	66.8	47	150	473	1,497
15H	2 Bunch Palms Tr	Cholla Dr to West Dr	67.0	50	159	503	1,591
15I	2 Bunch Palms Tr	West Dr to Palm Dr	67.0	50	159	503	1,591
15J	2 Bunch Palms Tr	East of Palm Dr	65.3	34	107	338	1,068
16A	Dillon Rd	SR-62 to Worsley Rd	72.1	161	511	1,614	5,105
16B	Dillon Rd	Worsley Rd to Diablo Rd	69.8	95	301	953	3,013
16C	Dillon Rd	Diablo Rd to Karen Ave	70.7	119	375	1,187	3,754
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	71.0	126	399	1,261	3,988
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	73.3	213	673	2,128	6,731
16F	Dillon Rd	Little Morongo Rd to Palm Dr	74.0	248	785	2,483	7,852
16G	Dillon Rd	Palm Dr to Mountain View Rd	73.2	209	659	2,085	6,594
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	71.8	151	476	1,507	4,764
16I	Dillon Rd	East of Long Canyon Rd	72.8	191	603	1,908	6,033
17A	20th Ave	Worsley Rd to Diablo Rd	64.2	26	83	262	828
17B	20th Ave	Diablo Rd to Karen Ave	61.9	16	49	155	491
17C	20th Ave	Karen Ave to Indian Canyon Dr	60.9	12	39	123	389
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	70.6	114	362	1,144	3,617
17E	20th Ave	Little Morongo Rd to Palm Dr	69.7	93	294	929	2,938
17F	20th Ave	Palm Dr to Mountain View Rd	70.3	108	341	1,079	3,413
18A	Varner Rd	Mihaylo Rd to Palm Dr	67.1	51	161	511	1,615
18B	Varner Rd	Palm Dr to Mountain View Rd	69.2	83	262	828	2,618
18C	Varner Rd	East of Mountain View Rd	74.9	310	980	3,098	-(D)
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	61.1	13	40	128	404
20	SR-62	I-10 to Indian Canyon Drive	79.1	813	2,572	-(D)	-(D)
21	I-10	SR-62 to Date Palm Drive	88.0	6,344	20,062	-(D)	-(D)

Source: Ganddini Group, Inc. 2019 and MIG 2019 (see Appendix E)
(A) All CNEL values at listed distances are measured from the center of the modeled roadway.
(B) "-" indicates the roadway segment does not exist for the modeled scenario.
(C) 10th, 13th, and 14th Avenues become part of Mission Lakes Boulevard, Hacienda Avenue, and Two Bunch Palms Trail, respectively, under future conditions.
(D) Distances to these contours are more than 1.5 miles and are not presumed to be representative due to topographic and meteorological effects on sound propagation at these distances.

Noise-Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. In general, the noise-sensitive receptors within the Planning Area include, but are not limited to (see Figure 4-13.1):

- Existing low density, medium density, high density, and mixed use residential receptors within the city.
- Existing schools and educational or institutional facilities, such as Bubbling Wells Elementary, Painted Hills Middle School, and Desert Hot Springs High School.
- Existing parks, such as Guy J Tedesco Park, Wardman Park, and Missions Springs Park.

The Project would increase development density in Desert Hot Springs and would provide for new residential and non-residential (e.g., commercial, industrial, and retail) opportunities. New sensitive receptors would be located throughout the city as growth envisioned in the General Plan Update occurs.

4.13.3 Regulatory Framework

Federal

Federal Transit Administration (FTA)

No federal regulations apply to noise or vibration from the proposed project, but the FTA's 2018 *Transit Noise and Vibration Impact Assessment Manual* document sets groundborne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings were people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 4.13-5.

Table 4.13-5
FTA Ground-Borne Vibration Impact Criteria for General Assessment

Vibration Land Use Category/Type	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional buildings	75 VdB	78 VdB	83 VdB
Source: FTA 2018 Note: VdB = Velocity decibel			

State

California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

California Green Building Standards Code

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for nonresidential development that may be applicable to the Project.

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dBA L_{eq} (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.
- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA L_{eq} pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA L_{eq} in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

Caltrans

The California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2013b). Chapters Six and Seven of this manual summarize vibration detection and annoyance criteria from various agencies and provide Caltrans' recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 4.13-6 and Table 4.13-7.

Table 4.13-6
Caltrans' Vibration Threshold Criteria for Building Damage

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Extremely fragile buildings, ruins, monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50

Source: Caltrans 2013b
Note: PPV = peak particle velocity

Table 4.13-7
Caltrans' Vibration Threshold Criteria for Human Response

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Source: Caltrans 2013b Note: PPV = peak particle velocity		

Local

Desert Hot Springs General Plan
The Safety and Noise Element of the proposed GPU addresses noise in the community. The following policies are identified in the Safety and Noise Element that would be applicable to construction and operational noise that would be generated in the Planning Area under growth envisioned in the GPU:

- Policy SN-8.1: Sensitive Land Uses
- Policy SN-8.2: Noise Impacts
- Policy SN-8.3: Noise Mitigation
- Policy SN-8.4: Circulation Pattern
- Policy SN-8.5: Compatible Land Uses
- Policy SN-8.6: Truck Routes
- Policy SN-8.7: Wind Farm Noise Impacts
- Policy SN-8.8: Interior Noise Standards
- Policy SN-8.9: Exterior Noise Standards
- Policy SN-8.10: Noise-generating Uses
- Policy SN-8.11: Noise Level Compliance
- Policy SN-8.12: Delivery or Service noise Generation
- Policy SN-8.13: Noise Reducing Pavement
- Policy SN-8.14: Noise Compliant Response

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

In addition, the City's Safety and Noise Element establishes land use compatibility standards, as shown in Table 4.13-8.

Table 4.13-8
Noise/Land Use Compatibility Guidelines

Land Use Category	CNEL Acceptability			
	Normally Acceptable	Conditionally Acceptable	Generally Unacceptable	Discouraged
Residential - Single- and Multi-Family Dwellings, Group Quarters	50-60	60-65	65-75	75+
Residential – Mobile Homes	50-55	55-60	60-70	75+
Transient Lodging: Hotels and Motels	50-60	60-70	70-80	80+
Schools, Libraries, Churches, Hospitals, Nursing Homes, and Convalescent Hospitals	50-60	60-65	65-75	75+
Recreation Land Uses: Golf Courses, Open Space (with Walking, Bicycling or Horseback Riding Trails, etc.)	50-70	70-75	75+	N/A
Playgrounds, Neighborhood Parks	50-65	65-70	70-75	75+
Office Building, Person Business, and Professional Services	50-65	65-75	75-80	80+
Commercial Land Uses: Retail Trade, Movie Theaters, Restaurants, Bars, Entertainment Activities, Services	50-70	70-80	85+	N/A
Heavy Commercial/Industrial: Wholesale, Manufacturing, Utilities, Transportation, Communications	50-70	70+	N/A	N/A
Auditoriums, Concert Halls, Amphitheaters, Music Shells, Meeting Hall	N/A	50-60	60-70	70+
Source: Desert Hot Springs, 2019; Modified by MIG, 2019				

City of Desert Hot Springs Municipal Code
Municipal Code Title 8 (Health and Safety), Chapter 12 (Noise Control) includes the City's standards related to noise. Section 8.12.030 establishes, "It is unlawful for any period to make, suffer, permit, allow, continue, or cause to be made, suffered, permitted, allowed, or continued within the City limits or within 200 feet therefore, any noise disturbance," where a noise disturbance means any sound that:

1. Endangers the safety or health or any period;
2. Disturbs a reasonable person of normal sensitivities; or

3. Endangers personal or real property.

Section 8.12.090 of the Municipal Code states that it is unlawful for any person to cause, suffer, allow, or permit any of the following outside of the following hours: Monday through Friday, 7:00 AM through 6:00 PM; Saturday, 8:00 AM through 6:00 PM; and Sunday, 9:00 AM through 5:00 PM:

- Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects in such a manner as to cause a noise disturbance across a residential real property boundary.
- Operating any mechanically powered saw, sander, drill, grinder, lawn or garden tool, or similar device so as to cause a noise disturbance across a residential real property boundary.

Section 8.12.100 of the Municipal Code stipulates that it is unlawful for any person to cause, suffer, allow or permit any construction, drilling, or demolition work, or the use of tools or equipment:

1. Between the hours of 5:00 PM and 7:00 AM of the following day, except when daylight savings time is in effect;
2. When daylight savings time is in effect, no activities shall be permitted between the hours of 6:00 PM and 6:00 AM of the following Day.
3. At any time on Sundays.

Municipal Code Title 17 (Zoning), Chapter 17.40 (Property Development Standards), Section 17.40.180 (Noise), states: No loud speaker, bells, gongs, buzzers, mechanical equipment or other sounds, attention attracting, or communication device associated with any use shall be discernible beyond any boundary line of the parcel, except fire protection devices, burglar alarms and church bells. The following provisions shall apply:

A. In residential areas, no exterior noise levels shall exceed 65 dBA and no interior noise level shall exceed 45 dBA.

B. All residential developments shall incorporate the following standards to mitigate noise levels:

   1. Increase the distance between the noise source and receiver.
   2. Locate land uses not sensitive to noise (i.e., parking lots, garages, maintenance facilities, utility areas, etc.) between the noise source and the receiver.
   3. Bedrooms should be located on the side of the structure away from major rights-of-way.
   4. Quiet outdoor spaces may be provided next to a noisy right-of-way by creating a U-shaped development which faces away from the right-of-way.

C. The minimum acceptable surface weight for a noise barrier is 4 pounds per square foot (equivalent to ¾ inch plywood). The barrier shall be of a continuous material which is resistant to sound including: (1) masonry block; (2) precast concrete; or (3) earth berm or a combination of earth berm with block concrete.

D. Noise barriers shall interrupt the line of sight between noise source and receiver.

Section 17.40.300 of the Municipal Code states no vibration associated with any use shall be permitted that is discernible beyond the boundary line of the property.

4.13.4 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update would have a significant impact related to noise or vibration if it would result in:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

B. Generation of excessive groundborne vibration or groundborne noise levels;

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or

D. Would the project cause substantial adverse cumulative impacts with respect to noise?

For the purposes of this EIR, a substantial permanent increase in ambient noise is defined as: 1) an increase of 5 dBA or more where the ambient noise level would remain normally or conditionally acceptable; 2) An increase of 3 dBA or more that causes the existing ambient noise level to change from normally or conditionally acceptable to normally unacceptable; or 3) an increase of 1 dBA or more that causes the existing ambient noise level to change from normally unacceptable to clearly unacceptable, or where the existing ambient noise levels are already clearly unacceptable.

4.13.5 Environmental Impacts

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Analysis of Impacts

Project implementation would involve construction that would result in temporary noise generation, primarily from the use of heavy-duty construction equipment.

Project implementation would have the potential to change the existing amounts and types of land uses within the Planning Area. These potential land use changes would increase the number of residents and employees. This increase in population and employment would lead to increased vehicle traffic on the local roadway system, which could result in traffic-related noise levels that pose land use compatibility issues or result in a substantial permanent increase in traffic-related noise levels throughout the Planning Area.

Project implementation could also involve increases in stationary noise and other sources of noise within the Planning Area.

These potential effects are evaluated below.

Construction Noise Levels

The Project would result in the development of approximately 34,564 new dwelling units, approximately 17,135,438 square feet of non-residential building space, and approximately 897 new hotel/motel rooms. Most of the new development envisioned in the GPU would occur in undeveloped portions of the Planning Area. Low density residential land uses would remain the would remain the predominant land use under the Project. New low density development within the Planning Area would be focused in the western portion, generally along Pierson Blvd between Indian Canyon Avenue and Worsley Road, and in the southern portion, generally east of Palm Drive, between Two Bunch Palms Trail and 20th Ave. Other key changes in land uses include the development of a commercial corridor along Highway 62, and a mixed use corridor that runs along Palm Drive and into downtown Desert Hot Springs. A large portion of land in the southern portion of the city would be rezoned to industrial land use and have the cultivation overlay, meaning that it is a district that allows for cannabis-related uses.

Although the Project would focus on new development in certain areas, future individual construction and development projects could occur throughout the Planning Area over the approximately 20-year period planned for by the Project. These projects could occur on any property (based on land uses allowed by the Land Use Plan) and could affect existing or future land uses, including potentially sensitive residential, commercial, park, or school land uses that may or may not currently be present near future development areas. Thus, this analysis addresses the potential for the Project to result in temporary construction noise impacts, wherever they might occur.

Since individual project-specific information is not available at this time, potential short-term (construction-related) noise impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction source noise and vibration levels were developed based on methodologies, reference noise levels, typical equipment usage, and other operating factors documented and contained in FHWA's Construction Noise Handbook (FHWA 2010), FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2013b). Reference levels are noise emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Construction activities associated with future development projects could include: staging, demolition, site preparation (e.g., land clearing), grading, utility trenching, foundation work (e.g., excavation, pouring concrete pads, drilling for piers), material deliveries (requiring travel along Planning Area roads), building construction (e.g., framing, concrete pouring, welding), paving, coating application, and site finishing work. In general, these activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as, but not limited to, backhoes, tractors, loaders, graders, excavators, rollers, cranes, material lifts, generators, and air compressors. Table 4.13-9 presents the noise levels associated with typical types of construction equipment that could be used in the Planning Area for future individual projects.

Table 4.13-9
Typical Construction Equipment Noise Levels (dBA)

Equipment	Reference Noise Level at 50 Feet (L_{max})(A)	Percent Usage Factor(B)	Predicted Noise Levels (L_{eq}) at Distance(C)					
			50 Feet	100 Feet	200 Feet	300 Feet	400 Feet	500 Feet
Bulldozer	85	40	81	75	71	67	64	62
Backhoe	80	40	76	70	66	62	59	57
Compact Roller	80	20	73	67	63	59	56	54
Concrete Mixer	85	40	81	75	71	67	64	62
Crane	85	16	77	71	67	63	60	58
Excavator	85	40	81	75	71	67	64	62
Generator	82	50	79	73	69	65	62	60
Pneumatic tools	85	50	82	76	72	68	65	63
Scraper	85	40	82	76	72	68	64	62
Delivery Truck	85	40	81	75	71	67	64	62
Vibratory Roller	80	20	73	67	63	59	56	54

Sources: Caltrans 2013a and FHWA 2010

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2013a: L_{eq} (hourly) = L_{max} at 50 feet – 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

Demolition, site preparation, and grading phases typically result in the highest temporary noise levels due to the use of heavy-duty equipment such as bulldozers, excavators, graders, loaders, scrapers, and trucks. As shown in Table 4.13-9, the worst-case L_{eq} and L_{max} noise levels associated with the operation of, for example, a bulldozer, excavator, or scraper, are predicted to be approximately 82 and 85 dBA, respectively, at a distance of 50 feet from the equipment operating area. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. The concurrent operation of two or more pieces of construction equipment would result in noise levels of approximately 85 to 88 dBA at a distance of 50 feet from equipment operating areas[2].

The magnitude of each individual future project's temporary and periodic increase in ambient noise levels would be dependent upon a number of project-specific factors that are not known at this time, including: the amount and type of equipment being used; the distance between the area where equipment is being operated and the location of the specific land use or receptor where noise levels are being evaluated; the time of day construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. For example, a noise level of 88 dBA L_{max} would be approximately 10 dBA or more than typical L_{max} levels measured throughout the Planning Area (see Appendix E).

[2] As shown in Table 4.13-9, a single bulldozer provides a sound level of 81 dBA L_{eq} at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA L_{eq} and when three identical sound levels are combined, the noise level increases to 86 dBA L_{eq}. These estimates assume no shielding or other noise control measures are in place at or near the work areas.

Sustained L_{eq} levels of 85 dBA could be approximately 25 dBA above ambient conditions in developed, residential/commercial portions of the Planning Area (e.g., ST-1; see Table 4.13-2), and approximately 30 dBA in some undeveloped and partially undeveloped portions of the Planning Area (e.g., ST-2, ST-3, and ST-5; see Table 4.13-2). Construction activities adjacent to major arterials (e.g., Indian Canyon Drive) would be approximately 15 dBA above ambient conditions. Typically, sustained construction noise levels of 80 to 85 dBA or higher would require the implementation of construction noise control practices such as staging area restrictions (e.g., siting staging areas away from sensitive receptors), equipment controls (e.g., covered engines and use of electrical hook-ups instead of generators), and/or the installation of temporary noise barriers of sufficient height, size (length or width), and density to achieve targeted noise reductions.

The City's proposed Safety and Noise Element, as discussed in Section 4.13.3, focuses on protecting Desert Hot Springs citizens from excessive construction noise levels that could disturb and disrupt human activities and affect the physical and psychological health of individuals. In particular, Policy SN-8.1 highlights the City's commitment to protecting sensitive land uses from high noise levels, and Policy SN-8.3 requires the implementation of mitigation in the form of sound walls, insulation, etc. for new development in areas that exceed the City's noise standards. Furthermore, the City's Municipal Code, Section 8.12.100, establishes limitations for when construction activities can occur.

The City's Municipal Code does not have specific, numeric noise standards (e.g., 90 dB L_{eq}) for construction noise. Although the City's General Plan sets forth a requirement to assess and minimize noise levels into the development review process, it does not specifically stipulate a requirement for project proponents to minimize potential construction noise levels (e.g., through the use of best management practices or noise control measures such as sound barriers). While all projects in the city would be subject to the permissible construction hours established by the Municipal Code, it is possible that some discretionary and non-discretionary construction activities could result in temporary increases in noise levels above ambient conditions of 15 to 30 dBs or more during permissible time frames, which would be perceived by noise-sensitive land uses as doubling or quadrupling of loudness, respectively. This situation is most likely to occur in areas where the Project would permit increased development density in a relatively undeveloped portion of the city (e.g., in the northern and western portions of the Planning Area).

Level of Significance Before Mitigation (Temporary/Construction)

Potential temporary construction-related noise increases of more than 10 dBA above ambient conditions during permissible construction hours would be a **potentially significant impact**.

Mitigation Measures

Mitigation Measure NOI-1: Assess and Minimize Temporary Construction Noise Levels

To ensure that future development projects implement appropriate construction noise controls, the City shall require development projects that are subject to discretionary review and that are located near (i.e., within 200 feet) of noise-sensitive land uses (e.g., residential, school, or long term medical care facilities) to assess potential construction noise levels and minimize substantial adverse impacts by implementing feasible construction noise control measures that reduce construction noise levels at sensitive receptor locations. Such measures may include, but are not limited to: 1) construction management techniques (e.g., providing advance notice of construction activities to nearby noise-sensitive receptors, siting staging areas away from noise-sensitive land uses, phasing activities to take advantage of shielding/attenuation provided by topographic features or buildings, monitoring construction); 2) construction equipment controls (e.g., ensuring equipment has mufflers, use of electric hook-ups instead of generators); 3) use of temporary sound barriers (equipment enclosures, berms, walls, blankets, or other devices) when necessary; 4) preparation of a plan, procedures, or other mechanism to receive track, respond, and resolve construction noise complaints, including designation of an on-site appointee to handle such complaints, and report back to City staff; and 5) require monitoring construction noise levels if complaints are received to verify the need for additional noise controls.

Level of Significance After Mitigation

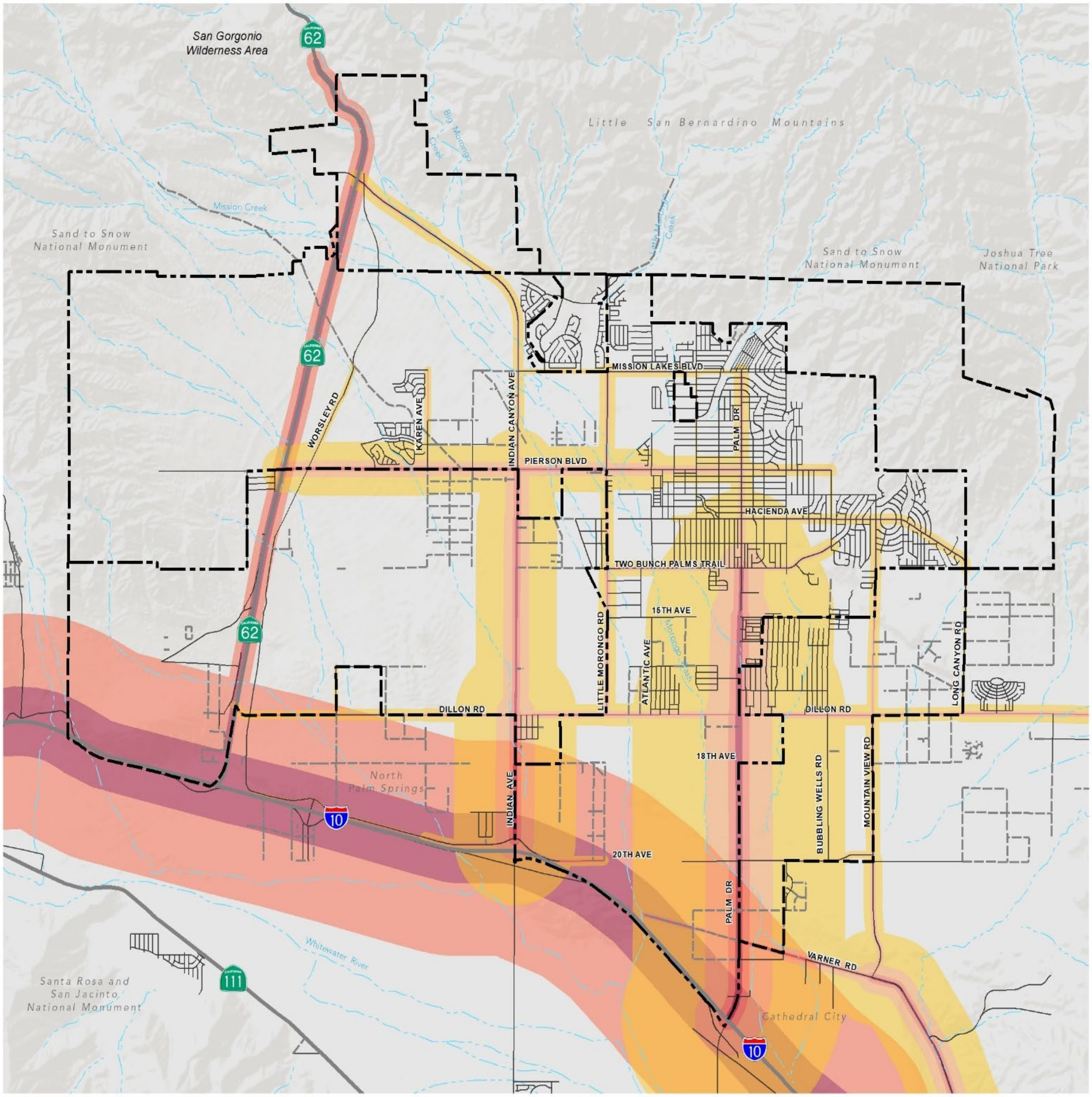
Although specific construction activities and noise levels associated with future development projects are not known at this time, Mitigation Measure NOI-1 would require the implementation of feasible construction noise control measures when development occurs near noise-sensitive land uses and, therefore, would render potential construction noise impacts from future development projects a **less than significant impact with mitigation.**

Increases in Traffic Noise Levels

Although the proposed Project in itself does not authorize any specific development project or increase in existing vehicular traffic levels, the City contracted with a professional transportation engineering firm (Ganddini Group, Inc.) to prepare estimates of the potential total net increase in trips resulting from the land use changes associated with potential Project growth (Appendix F). The vehicle trip estimates prepared for the Project provide a sufficient level of detail to generally evaluate the potential future increases in traffic-related noise levels associated with Project growth.

Future development could be exposed to incompatible traffic noise levels. In addition, existing development within the Planning Area may also be exposed to increases in traffic noise as a result of potential land use changes resulting from the Project. Residential development, schools, libraries, hospitals, convalescent homes, and places of worship are considered the most noise-sensitive land uses with regards to community noise. High density and mixed-use residential, commercial, and industrial developments are less noise-sensitive because uses are primarily indoors, and typically noise exposure can be reduced through design and material choices (e.g., outdoor activity areas are located in courtyards surrounded by structures, materials with greater insulation are used).

Future 2040 traffic noise levels with the Project were computed using the same methodology (TNM Version 2.5) and data sources used to calculate existing 2019 and future baseline 2040 traffic noise levels (see Section 4.13.2), except that Project traffic levels were obtained from the TIA prepared for the Project and entered into the traffic model. Future traffic noise contours are shown in Figure 4.13-3 (Project 2040 Transportation Noise Contours). The distances to the modeled CNEL contours for the roadway are shown in Table 4.13-10. In addition, Table 4.13-11 summarizes the net change in average daily traffic (ADT) and traffic noise levels (at a distance of 100 feet) that would occur with implementation of the Project. Refer to Appendix E for detailed existing and future traffic noise modeling results.



Miles
0 0.5 1 2

Community Noise Equivalent Levels (CNEL)

Future Noise Contours (2040)

- 75 CNEL
- 70 CNEL
- 65 CNEL
- 60 CNEL

Source: MIG, 2019.

Date: October 2019.

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

Exhibit 4.13-3: Future Project 2040 Traffic Noise Contours

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Table 4.13-10
Future (2040) General Plan Update Traffic Noise Level Contour Distances

ID	Road	Segment	CNEL at 100 Feet (dBA)[(A)]	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	52.8	2	6	19	61
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	62.6	18	57	180	570
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	52.8	2	6	19	61
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	50.6	1	4	11	36
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	51.3	1	4	14	43
1F	Worsley Rd	Dillon Rd to 20th Ave	54.3	3	9	27	86
2A	Oasis Dr[(B)]	13th Ave to 14th Ave	62.6	18	57	181	572
3A	Diablo Rd	14th Ave to Dillon Rd	61.3	13	42	134	425
4A	Karen Ave	Indian Canyon Dr to 10th Ave	63.2	21	66	208	658
4B	Karen Ave	10th Ave to Pierson Blvd	63.1	20	65	205	648
4C	Karen Ave	Pierson Blvd to 13th Ave	64.2	26	83	262	827
4D	Karen Ave	13th Ave to 14th Ave	64.8	30	96	304	961
4E	Karen Ave	14th Ave to Dillon Rd	64.7	29	93	293	926
5A	Indian Canyon Dr	SR-62 to Worsley Rd	67.1	51	161	510	1,613
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	66.8	48	151	478	1,511
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	64.9	31	99	313	989
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	65.6	36	115	363	1,148
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	73.5	223	704	2,227	7,043
5F	Indian Canyon Dr	13th Ave to 14th Ave	73.8	240	758	2,398	7,582
5G	Indian Canyon Dr	14th Ave to Dillon Rd	73.8	240	758	2,398	7,582
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	75.6	361	1,142	3,612	-[(C)]
6A	Little Morongo Rd	North of Mission Lakes Blvd	56.5	4	14	44	141
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	66.7	46	147	465	1,469
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	65.9	39	124	392	1,240
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	65.9	39	122	387	1,222
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	67.2	53	167	527	1,665
6F	Little Morongo Rd	Dillon Rd to 20th Ave	64.5	28	90	284	897
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	57.8	6	19	60	189
7B	West Dr	Pierson Blvd to Hacienda Ave	57.8	6	19	60	189
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	59.0	8	25	79	250
8A	Palm Dr	North of Mission Lakes Blvd	47.8	1	2	6	19

ID	Road	Segment	CNEL at 100 Feet (dBA)[(A)]	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	66.5	44	140	444	1,405
8C	Palm Dr	Pierson Blvd to Hacienda Ave	68.1	64	203	642	2,030
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	69.3	84	267	845	2,672
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	76.3	424	1,342	4,244	-[(C)]
8F	Palm Dr	Camino Campanero to Camino Aventura	77.5	557	1,761	5,570	-[(C)]
8G	Palm Dr	Cam. Aventura to Dillon Rd	77.5	557	1,761	5,570	-[(C)]
8H	Palm Dr	Dillon Rd to I-10 Freeway	78.0	629	1,989	6,291	-[(C)]
9A	Bubbling Wells Rd	North of Dillon Rd	56.9	5	16	49	156
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	55.0	3	10	31	99
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	65.2	33	104	329	1,042
10B	Mountain View Rd	Dillon Rd to 20th Ave	66.3	43	135	426	1,348
10C	Mountain View Rd	20th Ave to Varner Rd	67.5	56	176	556	1,758
11A	Long Canyon Rd	North of Dillon Rd	59.6	9	29	91	289
12A	10th Ave[(B)]	SR-62 to Worsley Rd	59.3	9	27	85	269
12B	10th Ave[(B)]	Worsley Rd to Karen Rd	60.1	10	33	103	327
12C	10th Ave[(B)]	Karen Rd to Indian Canyon Dr	62.3	17	54	171	541
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	61.9	16	49	155	491
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	64.7	29	92	292	925
12F	Mission Lakes Blvd	West Dr to Palm Dr	61.0	12	40	125	395
13A	Pierson Blvd	SR-62 to Worsley Rd	71.1	128	406	1,282	4,055
13B	Pierson Blvd	Worsley Rd to Diablo Rd	71.6	146	462	1,462	4,622
13C	Pierson Blvd	Diablo Rd to Karen Ave	71.6	146	462	1,462	4,622
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	71.1	128	406	1,282	4,055
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	70.9	124	391	1,237	3,913
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	70.5	113	357	1,130	3,572
13G	Pierson Blvd	Atlantic Ave to West Dr	68.8	75	237	750	2,372
13H	Pierson Blvd	West Dr to Palm Dr	68.8	75	237	750	2,372
13I	Pierson Blvd	Palm Dr to Miracle Hill	65.3	34	107	338	1,069
14A	13th Ave[(B)]	Diablo Rd to Karen Ave	60.9	12	39	122	387
14B	13th Ave[(B)]	Karen Ave to Indian Canyon Dr	57.8	6	19	60	190
14C	13th Ave[(B)]	Indian Canyon Dr to Little Morongo Rd	60.1	10	33	103	327
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	59.4	9	28	87	276
14E	Hacienda Ave	Cholla Dr to Palm Dr	62.7	18	58	185	584
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	64.5	28	88	280	885
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	64.5	28	88	280	885
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	64.5	28	88	280	885

ID	Road	Segment	CNEL at 100 Feet (dBA)(A)	CNEL Contour and Distance from Roadway Center in Feet			
				70 dBA	65 dBA	60 dBA	55 dBA
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	64.5	28	88	280	885
14J	Hacienda Ave	East of Mountain View Rd	64.6	29	92	290	917
15A	14th Ave(B)	SR-62 to Worsley Rd	51.3	1	4	14	43
15B	14th Ave(B)	Worsley Rd to Diablo Rd	51.3	1	4	14	43
15C	14th Ave(B)	Diablo Rd to Karen Ave	57.6	6	18	57	181
15D	14th Ave(B)	Karen Ave to Indian Canyon Dr	59.8	10	30	96	305
15E	14th Ave(B)	Indian Canyon Dr to Little Morongo Rd	61.9	16	49	156	492
15F	2 Bunch Palms Tr	Little Morongo Rd to Cabot Dr	66.3	43	136	429	1,356
15G	2 Bunch Palms Tr	Cabot Dr to Cholla Dr	66.3	43	136	429	1,356
15H	2 Bunch Palms Tr	Cholla Dr to West Dr	66.6	45	143	453	1,431
15I	2 Bunch Palms Tr	West Dr to Palm Dr	66.6	45	143	453	1,431
15J	2 Bunch Palms Tr	East of Palm Dr	66.5	45	142	450	1,423
16A	Dillon Rd	SR-62 to Worsley Rd	64.0	25	79	250	790
16B	Dillon Rd	Worsley Rd to Diablo Rd	63.9	24	77	244	772
16C	Dillon Rd	Diablo Rd to Karen Ave	65.1	32	102	323	1,023
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	65.7	37	118	372	1,177
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	67.7	59	187	591	1,870
16F	Dillon Rd	Little Morongo Rd to Palm Dr	67.8	61	191	605	1,914
16G	Dillon Rd	Palm Dr to Mountain View Rd	67.6	57	180	570	1,802
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	65.8	38	120	378	1,195
16I	Dillon Rd	East of Long Canyon Rd	66.9	49	156	494	1,562
17A	20th Ave	Worsley Rd to Diablo Rd	56.5	4	14	44	140
17B	20th Ave	Diablo Rd to Karen Ave	57.6	6	18	58	182
17C	20th Ave	Karen Ave to Indian Canyon Dr	64.9	31	98	308	975
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	64.4	27	86	273	864
17E	20th Ave	Little Morongo Rd to Palm Dr	63.8	24	75	238	753
17F	20th Ave	Palm Dr to Mountain View Rd	63.3	21	68	214	676
18A	Varner Rd	Mihaylo Rd to Palm Dr	66.7	47	147	465	1,471
18B	Varner Rd	Palm Dr to Mountain View Rd	70.9	122	387	1,224	3,871
18C	Varner Rd	East of Mountain View Rd	74.1	255	806	2,547	8,055
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	59.7	9	29	92	292
20	SR-62	I-10 to Indian Canyon Drive	77.5	563	1,779	5,626	-(C)
21	I-10	SR-62 to Date Palm Drive	87.6	5,786	-(C)	-(C)	-(C)

Source: Ganddini Group, Inc. 2019 and MIG 2019 (see Appendix E)
(A) All CNEL values at listed distances are measured from the center of the modeled roadway.
(B) 10th, 13th, and 14th Avenues become part of Mission Lakes Boulevard, Hacienda Avenue, and Two Bunch Palms Trail, respectively, under future conditions.
(C) Distances to these contours are more than 1.5 miles and are not presumed to be representative due to topographic and meteorological effects on sound propagation at these distances.

Table 4.13-11
Net Change in ADT and Traffic Noise Levels

ID	Road	Segment	Existing		Future		Net Change	
			ADT	CNEL(A)	ADT	CNEL(A)	ADT	CNEL(A)
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	236	51.5	700	52.8	464	1.4
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	188	49.2	6,700	62.6	6,512	***13.4***
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	223	50.0	700	52.8	477	2.9
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	223	50.0	400	50.6	177	0.6
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	291	51.0	500	51.3	209	0.3
1F	Worsley Rd	Dillon Rd to 20th Ave	563	53.9	1,000	54.3	437	0.5
2A	Oasis Dr(B)	13th Ave to 14th Ave	-	-	4,600	62.6	4,600	***62.6(F)***
3A	Diablo Rd	14th Ave to Dillon Rd	239	51.8	5,000	61.3	4,761	***9.5***
4A	Karen Ave(B)	Indian Canyon Dr to 10th Ave	-	-	7,800	63.2	7,800	***63.2***
4B	Karen Ave	10th Ave to Pierson Blvd	41	46.8	7,700	63.1	7,659	***16.3***
4C	Karen Ave(B)	Pierson Blvd to 13th Ave	-	-	9,800	64.2	9,800	***64.2(F)***
4D	Karen Ave(B)	13th Ave to 14th Ave	-	-	11,400	64.8	11,400	***64.8(F)***
4E	Karen Ave(B)	14th Ave to Dillon Rd	-	-	11,000	64.7	11,000	***64.7(F)***
5A	Indian Canyon Dr	SR-62 to Worsley Rd	6,056	68.2	19,100	67.1	13,044	-1.1
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	5,190	67.5	17,900	66.8	12,710	-0.7
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	5,190	67.5	11,700	64.9	6,510	-2.6
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	6,765	68.7	13,600	65.6	6,835	-3.1
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	9,063	69.9	24,800	73.5	15,737	***3.6***
5F	Indian Canyon Dr	13th Ave to 14th Ave	9,236	70.0	26,700	73.8	17,464	***3.8***
5G	Indian Canyon Dr	14th Ave to Dillon Rd	8,862	69.8	26,700	73.8	17,838	4.0
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	14,183	71.9	39,200	75.6	25,017	***3.7***
6A	Little Morongo Rd	North of Mission Lakes Blvd	1,778	56.3	3,100	56.5	1,322	0.2
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	4,010	61.2	17,200	66.7	13,190	***5.5***
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	4,088	63.7	14,500	*65.9*	10,412	2.2
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	4,758	64.4	14,300	*65.9*	9,542	1.5
6E	Little Morongo Rd	Two Bunch Palms Tr to Dillon Rd	7,382	69.0	19,500	67.2	12,118	-1.8
6F	Little Morongo Rd(B)	Dillon Rd to 20th Ave	-	-	10,500	64.5	10,500	***64.5(F)***
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	3,750	56.2	4,200	*57.8*	450	1.6
7B	West Dr	Pierson Blvd to Hacienda Ave	3,300	57.5	4,200	*57.8*	900	0.2

ID	Road	Segment	Existing		Future		Net Change	
			ADT	CNEL[A]	ADT	CNEL[A]	ADT	CNEL[A]
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,053	59.4	5,600	59.0	547	-0.4
8A	Palm Dr	North of Mission Lakes Blvd	272	43.5	400	47.8	128	4.4
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	11,500	62.9	16,500	66.5	5,000	***3.5***
8C	Palm Dr	Pierson Blvd to Hacienda Ave	20,850	65.5	24,000	*68.1*	3,150	2.5
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	28,752	66.9	31,600	*69.3*	2,848	2.4
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	28,750	71.6	46,400	76.3	17,650	***4.7***
8F	Palm Dr	Camino Campanero to Camino Aventura	29,000	72.8	46,400	77.5	17,400	***4.7***
8G	Palm Dr	Cam. Aventura to Dillon Rd	29,000	74.9	46,400	77.5	17,400	***2.6***
8H	Palm Dr	Dillon Rd to I-10 Freeway	29,000	75.9	52,400	78.0	23,400	***2.1***
9A	Bubbling Wells Rd	North of Dillon Rd	3,149	58.8	3,500	56.9	351	-1.8
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	1,445	59.2	2,200	55.0	755	-4.3
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	3,750	61.8	12,200	65.2	8,450	***3.3***
10B	Mountain View Rd	Dillon Rd to 20th Ave	10,133	70.4	15,800	66.3	5,667	-4.1
10C	Mountain View Rd	20th Ave to Varner Rd	11,137	70.8	20,600	67.5	9,463	-3.3
11A	Long Canyon Rd	North of Dillon Rd	3,067	62.5	3,400	59.6	333	-2.9
12A	10th Ave[B],[C]	SR-62 to Worsley Rd	-	-	3,100	59.3	3,100	***59.3***[F]
12B	10th Ave[B],[C]	Worsley Rd to Karen Rd	-	-	3,800	60.1	3,800	***60.1***[F]
12C	10th Ave[B],[C]	Karen Rd to Indian Canyon Dr	-	-	6,300	62.3	6,300	***62.3***[F]
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	3,985	62.4	5,700	61.9	1,715	-0.5
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	4,400	61.6	10,800	64.7	6,400	***3.1***
12F	Mission Lakes Blvd	West Dr to Palm Dr	3,641	59.5	4,600	*61.0*	959	1.5
13A	Pierson Blvd	SR-62 to Worsley Rd	2,286	63.9	14,200	71.1	11,914	***7.2***
13B	Pierson Blvd	Worsley Rd to Diablo Rd	2,700	64.6	16,200	71.6	13,500	***7.1***
13C	Pierson Blvd	Diablo Rd to Karen Ave	2,700	64.6	16,200	71.6	13,500	***7.1***
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	2,384	64.1	14,200	71.1	11,816	***7.0***
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	5,196	66.4	13,700	70.9	8,504	***4.5***
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	7,200	67.8	12,500	70.5	5,300	***2.7***
13G	Pierson Blvd	Atlantic Ave to West Dr	7,450	66.9	8,300	68.8	850	***1.9***
13H	Pierson Blvd	West Dr to Palm Dr	7,400	61.0	8,300	68.8	900	***7.7***
13I	Pierson Blvd	Palm Dr to Miracle Hill	2,600	56.6	6,500	65.3	3,900	***8.7***
14A	13th Ave[B],[C]	Diablo Rd to Karen Ave	-	-	4,500	60.9	4,500	***60.9***[F]

ID	Road	Segment	Existing		Future		Net Change	
			ADT	CNEL(A)	ADT	CNEL(A)	ADT	CNEL(A)
14B	13th Ave(B),(C)	Karen Ave to Indian Canyon Dr	-	-	2,200	57.8	2,200	***57.8(F)***
14C	13th Ave(B),(C)	Indian Canyon Dr to Little Morongo Rd	-	-	3,800	60.1	3,800	***60.1(F)***
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	-	-	3,200	59.4	3,200	***59.4(F)***
14E	Hacienda Ave	Cholla Dr to Palm Dr	4,600	61.8	6,800	62.7	2,200	0.9
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	7,200	60.9	10,300	64.5	3,100	***3.5***
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	7,200	62.3	10,300	64.5	3,100	***2.2***
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	7,200	62.3	10,300	64.5	3,100	2.2
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	9,400	63.5	10,300	64.5	900	1.0
14J	Hacienda Ave	East of Mountain View Rd	4,250	60.1	10,700	64.6	6,450	***4.6***
15A	14th Ave(B),(C)	SR-62 to Worsley Rd	-	-	500	51.3	500	51.3
15B	14th Ave(B),(C)	Worsley Rd to Diablo Rd	-	-	500	51.3	500	51.3
15C	14th Ave(B),(C)	Diablo Rd to Karen Ave	-	-	2,100	57.6	2,100	***57.6(F)***
15D	14th Ave(B),(C)	Karen Ave to Indian Canyon Dr	-	-	3,600	59.8	3,600	***59.8(F)***
15E	14th Ave(B),(C)	Indian Canyon Dr to Little Morongo Rd	-	-	5,800	61.9	5,800	***61.9(F)***
15F	2 Bunch Palms Tr	Little Morongo Rd to Cabot Dr	3,750	60.9	16,000	66.3	12,250	***5.4***
15G	2 Bunch Palms Tr	Cabot Dr to Cholla Dr	3,750	60.9	16,000	66.3	12,250	***5.4***
15H	2 Bunch Palms Tr	Cholla Dr to West Dr	3,750	60.9	16,900	66.6	13,150	***5.7***
15I	2 Bunch Palms Tr	West Dr to Palm Dr	3,750	59.5	16,900	66.6	13,150	***7.0***
15J	2 Bunch Palms Tr	East of Palm Dr	3,300	57.5	16,800	66.5	13,500	***9.0***
16A	Dillon Rd	SR-62 to Worsley Rd	2,832	64.8	9,200	64.0	6,368	-0.8
16B	Dillon Rd	Worsley Rd to Diablo Rd	2,650	64.6	9,000	63.9	6,350	-0.7
16C	Dillon Rd	Diablo Rd to Karen Ave	2,842	64.9	11,900	65.1	9,058	0.2
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	2,557	64.4	13,700	*65.7*	11,143	1.3
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	9,779	70.2	21,800	67.7	12,021	-2.5
16F	Dillon Rd	Little Morongo Rd to Palm Dr	10,081	70.3	22,300	67.8	12,219	-2.5
16G	Dillon Rd	Palm Dr to Mountain View Rd	10,539	70.5	21,000	67.6	10,461	-2.9
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	10,866	70.6	13,900	65.8	3,034	-4.9
16I	Dillon Rd	East of Long Canyon Rd	12,544	71.3	18,200	66.9	5,656	-4.3
17A	20th Ave	Worsley Rd to Diablo Rd	1,489	59.4	1,600	56.5	111	-2.9
17B	20th Ave	Diablo Rd to Karen Ave	1,489	59.4	2,100	57.6	611	-1.8
17C	20th Ave	Karen Ave to Indian Canyon Dr	530	55.2	11,400	64.9	10,870	***9.7***

ID	Road	Segment	Existing		Future		Net Change	
			ADT	CNEL(A)	ADT	CNEL(A)	ADT	CNEL(A)
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	1,214	61.2	10,100	64.4	8,886	3.1
17E	20th Ave	Little Morongo Rd to Palm Dr	-	-	8,800	63.8	8,800	63.8
17F	20th Ave(B)	Palm Dr to Mountain View Rd	1,214	61.2	7,900	63.3	6,686	2.1
18A	Varner Rd	Mihaylo Rd to Palm Dr	8	45.5	17,300	66.7	17,292	***21.2***
18B	Varner Rd	Palm Dr to Mountain View Rd	1,964	63.3	13,600	70.9	11,636	***7.6***
18C	Varner Rd	East of Mountain View Rd	12,050	71.1	28,300	74.1	16,250	***3.0***
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Ave	1,000	50.5	6,520	59.7	5,520	***9.2***
20	SR-62	I-10 to Indian Canyon Dr	18,667	76.6	24,775	77.5	6,109	0.9
21	I-10	SR-62 to Date Palm Dr	90,000	85.1	173,258	87.6	83,258	2.5

Source: MIG 2019 (See Appendix E).

(A) All CNEL values are presented at a distance of 100 feet from the center of the modeled roadway.

(B) "-" indicates the roadway segment does not exist for the modeled scenario.

(C) 10th, 13th, and 14th Avenues become part of Mission Lakes Boulevard, Hacienda Avenue, and Two Bunch Palms Trail, respectively, under future conditions.

(D) *Italicized* text indicates future ambient noise levels at residential receptor locations (at a distance of 100 feet from the roadway center) would either change (i.e., from normally acceptable to conditionally acceptable) or continue to be normally or conditionally acceptable, but would not increase ambient noise levels by more than 3.0 dBA. See Section 4.13.4, Significance Thresholds.

(E) ***Bold and italicized*** text indicates a net increase of: 1) 5.0 dBA or more where noise levels remain below normally acceptable levels; or 2) a net increase of 3.0 dBA or more where noise levels change from normally acceptable to conditionally acceptable, or from conditionally acceptable to generally unacceptable (or worse), or otherwise remain conditionally acceptable; or 3) a net increase of 1.0 dBA or more where noise levels change from normally unacceptable to discouraged or remain normally acceptable or discouraged. These increases are considered a potentially significant impact. The assessment is generally for the most-sensitive land use along the road segment, which is typically residential land uses. See Section 4.13.4, Significance Thresholds.

(F) This road segment would represent a new source of traffic noise under 2040 Project conditions that would exceed normally acceptable land use and noise compatibility thresholds for the planned land uses along the segment.

As shown in Table 4.13-11, traffic noise levels within the Planning Area are estimated to increase along a majority of road segments in the Planning Area (52 out of 100 modeled road segments). In addition, some increases in traffic noise levels would cause noise exposure along certain roadway segments to change from acceptable levels to conditionally acceptable levels or generally unacceptable levels. The results of the traffic noise modeling indicate that existing traffic noise levels within the Planning Area would be highest along major travel corridors such as Indian Canyon Drive, Little Morongo Road, Palm Drive, Mountain View Road, Pierson Boulevard, Two Bunch Palms Trail, Dillon Road, and Varner Road. Specifically, the modeling shows, in part:

- Traffic noise levels along all segments of Indian Canyon Drive south of Pierson Boulevard would increase by 3 to 4 dBA.[3] For all segments, including segments with planned low density residential land uses, traffic noise levels area estimated to increase to levels above 70 CNEL. This noise level would exceed the City's generally acceptable noise level for

3 For the purposes of this noise analysis and consistent with the California Environmental Quality Act (CEQA), all Project 2040 increases in noise are compared against existing 2019 noise levels. This provides a conservative approach (i.e., likely to overestimate the Project impact) because traffic noise increases are expected to occur in the Planning Area over time even without the Project.

residential land uses (70 CNEL).

- Traffic noise levels along all Little Morongo Road between Mission Lakes and Pierson Boulevard would increase by approximately 5.5 dBA but remain within the generally unacceptable noise level for residential land uses (70 CNEL).
- Traffic noise levels along all segments of Palm Drive are estimated to increase by approximately 2.1 to 4.7 dBA. In addition:
  - Traffic noise levels along the segment of Palm Drive from Mission Lakes Boulevard to Pierson Boulevard would increase by 3.5 dBA and change noise exposure levels for the planned visitor serving/residential land uses along this segment of Palm Drive from conditionally acceptable to generally unacceptable (greater than 65 CNEL).
  - Traffic noise levels along the segment of Palm Drive from Two Bunch Palms Trail to Camino Aventura would increase by 4.7 dBA and change noise exposure levels for the planned residential components of mixed use development projects from generally unacceptable to land use discouraged (greater than 75 CNEL).
- Traffic noise levels along all segments of Pierson Boulevard are estimated to increase to by approximately 1.9 to 8.7 dBA. In addition:
  - Traffic noise levels along the segments of Pierson Boulevard from SR-62 to Little Morongo Road are estimated to increase by approximately 4.5 to 7.2 dBA and change noise exposure levels for the planned commercial land uses along this portion of Pierson Boulevard from normally acceptable to conditionally acceptable (greater than 70 CNEL).
  - Traffic noise levels along the segments of Pierson Boulevard from West Drive to Miracle Hill Road are estimated to increase by approximately 7.7 to 8.7 dBA and change noise exposure levels for the planned visitor serving/residential l land uses along this portion of Pierson Boulevard from normally acceptable to conditionally acceptable (greater than 60 CNEL).
- Traffic noise levels along Two Bunch Palms Trail east of Little Morongo Road are estimated to increase by approximately 5.4 to 9.0 dBA and change noise exposure levels for the planned industrial land uses along this portion of Two Bunch Palms Trail from normally acceptable to conditionally acceptable (greater than 65 CNEL). This increase would also change noise exposure levels for existing single family residential land uses along this portion of Two Bunch Palms Trial from conditionally acceptable to generally unacceptable (greater than 65 CNEL).
- Traffic noise levels would decrease along some roadway segments due to changes in classification in and lower travel speeds that come with the change in classification, such as Dillon Road.

Pursuant to State noise standards, new residential structures would be required to be constructed such that interior noise levels do not exceed an hourly L_{eq} value of 45 dBA. Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22–25 dBA with all windows and doors closed (HUD 2009a and 2009b).[4] These interior noise reductions would be adequate for some developments occurring under the Project; however, new residential and mixed use developments along Karen Avenue, Pierson Boulevard, Palm Drive, and other roadway segments are likely to require additional noise attenuation design features since traffic noise levels along these roadways are estimated to exceed 70 CNEL under existing and future conditions. Adherence to the State's mandatory noise standards would ensure residential and mixed use structures within the Planning Area meet or exceed the 45 dBA L_{eq} standard.

Furthermore, the City's proposed GPU includes goals and policies that serve to minimize the impact of ambient noise levels throughout the city.

- Policy SN-8.1 Sensitive Land Uses calls for protecting noise sensitive land uses from high noise levels from both existing and future noise sources.
- Policy SN-8.2 Noise Impacts calls for assessing development and associated traffic for the potential to generate adverse and incompatible impacts and requiring mitigation where impacts are identified.
- Policy SN-8.3 Noise Mitigation requires the installation of walls, berms, and other noise attenuation mitigation measures for new development in areas where noise levels may exceed City noise limits.
- Policy SN-8.5 Compatible Land Uses designates land uses that are compatible with higher noise levels adjacent to major roadways and industrial lands.
- Policy SN-8.9 Exterior Noise Standards allows for exterior noise standards to be exceeded as long as mitigation is provided for interior noise levels.
- Policy SN-8.13 Noise Reducing Pavement encourages the use of noise reducing paving materials for road surfacing projects near sensitive land uses.

As demonstrated above, the City's Safety and Noise Element establishes the overall goal and intent of the City to protect residents from excessive noise by requiring the City to review the location of new noise-sensitive land uses, locate such land uses away from major noise sources, and ensure new land uses meet the City's noise standards through evaluation and design considerations. In addition, the proposed General Plan's Circulation Element goals and policies include a number of actions to reduce vehicle trips on the City's roads, which could lower traffic-related noise levels. Although these policies require noise to be addressed for new development, existing development could be exposed to increased noise levels that result in a change in terms of compatibility (i.e., from normally acceptable to conditionally acceptable), and as shown in Table 4.13-11, increases in traffic-related noise levels would be significant along many of the roads in the Planning Area, including segments of Worsley Road, Oasis Drive, Diablo Road, Karen

[4] The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

Avenue, Indian Canyon Drive, Little Morongo Road, Palm Drive, Mountain View Road, Mission Lakes Boulevard, Pierson Boulevard, Hacienda Avenue, Two Bunch Palms Trail, 20th Avenue, Varner Road, and Miracle Hill Road.

Level of Significance Before Mitigation (Traffic/Permanent)

The application of the policies and objectives outlined in the GPU would reduce the amount of future vehicle trips generated from implementation of the General Plan, however, the potential level of reduction is uncertain at this time and would be contingent on the characteristic of each individual future development project. Since a reduction in vehicle trips cannot be guaranteed, and future noise levels would increase by 3 dB or more and/or potentially expose noise-sensitive land uses to conditionally acceptable or higher noise levels, this impact is considered **potentially significant**.

Mitigation Measures

No additional feasible mitigation measures are available.

Level of Significance After Mitigation

Since the potential level of traffic noise reduction that would be achieved by the General Plan's Safety and Noise Element is uncertain at this time and cannot be guaranteed, future noise levels would increase by 3 dB or more and/or potentially expose noise-sensitive land uses to conditionally acceptable or higher noise levels. This impact would be significant and unavoidable.

Increases in Stationary and Other Sources of Noise

Stationary and other sources of noise in the Planning Area include those associated with typical activities associated with different types of land use. These sources could include, but are not limited to, landscape and building maintenance activities, stationary mechanical equipment (e.g., pumps, generators, HVAC units), garbage collection activities, commercial and industrial activities, and other stationary and area sources such as people's voices, amplified music, and public address systems. In addition, wind turbines used to produce energy are another source of stationary source noise in and near the Planning Area.

Noise generated by residential or commercial uses is generally short-term and intermittent. Industrial uses may generate noise on a more continual basis due to the types of their activities. The Project would provide for increases in residential and commercial development within the Planning Area, and would also provide for mixed use development in which residential and commercial uses are integrated into a single development project. These types of developments tend to have higher noise levels associated with the mix of land uses contained within them. Future planned development could also result in new stationary and area sources as well as exposure of new sensitive land uses to existing stationary and area sources.

The City's existing General Plan includes goals and policies that minimize the impact of ambient noise levels throughout the City. For example:

- Policy SN-8.1 Sensitive Land Uses calls for protecting noise sensitive land uses from high noise levels from both existing and future noise sources.

- Policy SN-8.2 Noise Impacts calls for assessing development and associated traffic for the potential to generate adverse and incompatible impacts and requiring mitigation where impacts are identified.
- Policy SN-8.3 Noise Mitigation requires the installation of walls, berms, and other noise attenuation mitigation measures for new development in areas where noise levels may exceed City noise limits.
- Policy SN-8.5 Compatible Land Uses designates land uses that are compatible with higher noise levels adjacent to major roadways and industrial lands.
- Policy SN-8.7 Wind Farm Noise Impacts calls for minimizing noise impacts from existing and future wind farm development.
- Policy SN-8.9 Exterior Noise Standards allows for exterior noise standards to be exceeded as long as mitigation is provided for interior noise levels.
- Policy SN-8.10 Noise-generating Uses requires specific design for noise-generating uses such as restaurants, bars, and industrial businesses located near noise sensitive land uses.
- Policy SN-8.12 Delivery or Service Noise Generation limits delivery or service hours for businesses with potential noise-generating features such as trash bins, docks, loading areas that are located near noise sensitive land uses.

The GPU Safety and Noise Element policies would protect residents from excessive stationary noise sources and ensure new land uses meet the City's Municipal Code noise standards (see Section 14.3.3) through evaluation and design considerations. Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, as well as the City's Municipal Code, which limit allowable noise levels at adjacent properties. Therefore, future stationary noise sources would comply with City standards and would not expose people to a substantial permanent increase in noise levels.

Level of Significance Before Mitigation (Stationary and Other Sources)

The application of the policies and objectives outlined in the City's General Plan update would reduce the potential increases in stationary and other sources of noise to levels that meet City standards. This impact is considered **less than significant**.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not applicable.

B. Generation of excessive groundborne vibration or groundborne noise levels?

Analysis of Impacts

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment are generally the primary cause of construction-related vibration impacts. The use of such equipment is generally limited to sites where there are extensive layers of very hard materials (e.g., compacted soils, bedrock) that must be loosened or penetrated to achieve grading and foundation design requirements. The need for such methods is usually determined through site-specific geotechnical investigations that identify the subsurface materials within the grading envelope, along with foundation design recommendations and the construction methods needed to safely permit development of a site.

Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration include excavation equipment, static compaction equipment, vibratory pile drivers, and pile-extraction equipment. Equipment or activities typical of transient (single-impact) or low-rate repeated impact vibration include impact pile drivers, and crack-and-seat equipment. Pile driving and blasting activities produce the highest levels of ground vibration and can result in structural damage to existing buildings.

Since individual project-specific information is not available at this time, potential short-term construction-related vibration impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and industrial development. Potential construction source vibration levels were developed based on methodologies, reference noise levels, and typical equipment usage and other operating factors documented and contained in the FHWA's Construction Noise Handbook (FHWA 2010), FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2013b). Reference levels are vibration emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Future development as a result of the Project would occur in primarily urban settings where land is already disturbed and, therefore, is not likely to require blasting, which is typically used to remove unwanted rock or earth. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. Table 4.13-12 presents the typical types of equipment that could be used for future development activities in the Planning Area.

Table 4.13-12
Groundborne Vibration and Noise from Typical Construction Equipment

Equipment	Peak Particle Velocity (in/sec) (A)			Velocity Decibels (VdB) (B)		
	25 feet	50 feet	100 feet	25 feet	50 feet	100 feet
Small bulldozer	0.003	0.001	0.001	58	49	40
Jackhammer	0.035	0.016	0.008	79	70	61
Rock Breaker	0.059	0.028	0.013	83	74	65
Loaded truck	0.076	0.035	0.017	86	77	68
Auger Drill Rig	0.089	0.042	0.019	87	78	69
Large bulldozer	0.089	0.042	0.019	87	78	69
Vibratory Roller	0.210	0.098	0.046	94	85	76
Impact Pile Driver (upper range)	1.518	0.708	0.330	112	103	94
Impact Pile Driver (typical)	0.644	0.300	0.140	104	95	86
Sonic Pile Driver (upper range)	0.734	0.42	0.160	105	96	87
Sonic Pile Driver (typical)	0.170	0.079	0.037	93	84	75

Sources: Caltrans 2013b and FTA 2018

(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 ft; and D= distance from equipment to receiver.

As shown in Table 4.13-12, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. Vibration levels dissipate rapidly with distance, such that even maximum impact pile driving activities would result in vibration levels below Caltrans' recommended 0.5 PPV threshold for transient vibration-induced damage in historic, older buildings at a distance 100 feet; all other activities would be below Caltrans' threshold for transient vibration-induced damage in historic, older buildings at a distance of 25 feet. For human responses, maximum impact pile driving activities would result in groundborne vibration and noise levels below Caltrans' threshold for a distinctly perceptible response (0.24 PPV) and the FTA's vibration standard for infrequent events at residential lands (80 VdB) at a distance of approximately 150 feet and 300 feet, respectively. All other activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses.

<u>Level of Significance Before Mitigation</u>

Typical construction activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses. Most construction equipment does not operate in the same location for prolonged periods of time. Therefore, even if construction equipment were to operate near a building where receptors may feel vibration, it would only be for a temporary amount of time and would not be considered excessive. This impact is considered **less than significant**.

<u>Mitigation Measures</u>

No significant impact.

<u>Level of Significance After Mitigation</u>

Not applicable.

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

<u>Analysis of Impacts</u>

The closest airport to the Planning Area is the Palm Springs International Airport, located approximately 2.5 miles south of the closest Planning Area boundary. This public airport serves both aircraft and helicopters and is anticipated to continue to grow and serve approximately 2.5 million passengers in 2020 (City of Palm Springs 2019). The Planning Area is not located within a noise contour zone associated with Palm Springs International Airport (Riverside County 2005). There are no private airstrips located in the Planning Area.

<u>Level of Significance Before Mitigation</u>

The Project is not located within the vicinity of a private air strip or an airport land use plan and would not expose people residing or working in the Planning Area to excessive airport-related noise levels. This impact would be **less than significant**.

<u>Mitigation Measures</u>

No mitigation is required.

<u>Level of Significance After Mitigation</u>

Not applicable.

D. Would the project cause substantial adverse cumulative impacts with respect to noise?

Analysis of Impacts

Project implementation would result in construction noise and vibration as individual development projects are constructed over time. Each individual development would be subject to City regulations and policies regarding construction noise and vibration, as well as Mitigation Measure NOI-1 contained in this EIR. These policies and measures establish the overall goal and intent of the City to protect residents from excessive construction noise and vibration, to require the appropriate evaluation of construction noise and vibration impacts at sensitive receptor locations, and to implement feasible construction noise and vibration control measures when development occurs near noise-sensitive land uses. Therefore, construction noise would not make a cumulatively considerable contribution to a significant cumulative construction noise impact.

Once constructed, development projects would contribute to the potential permanent increases in noise levels. The long-term increases in traffic in the Planning Area would result in a cumulatively considerable increase in noise levels along many road segments in the Planning area, including segments of Worsley Road, Oasis Drive, Diablo Road, Karen Avenue, Indian Canyon Drive, Little Morongo Road, Palm Drive, Mountain View Road, Mission Lakes Boulevard, Pierson Boulevard, Hacienda Avenue, Two Bunch Palms Trail, 20th Avenue, Varner Road, and Miracle Hill Road (see Table 4.13-11).

Each individual development project would be subject to City regulations and policies that limit and control non-transportation noise generation and exposure from these noise sources, and that render potential cumulative increases in noise levels from non-transportation noise sources to a less than significant level.

Level of Significance Before Mitigation

Potential temporary construction-related noise increases of more than 10 dBA above ambient conditions during permissible construction hours would be a **potentially significant impact**.

The long-term increases in traffic in the Planning Area would result in a cumulatively considerable increase in noise exposure along many road segments in the Planning Area. This is considered a **potentially significant impact**.

Mitigation Measures

See Mitigation Measure NOI-1.

Level of Significance After Mitigation

Although specific construction activities and noise levels associated with future development projects are not known at this time, Mitigation Measure NOI-1 would require the implementation of feasible construction noise control measures when development occurs near noise-sensitive land uses and, therefore, would render potential construction noise impacts from future development projects a **less than significant impact with mitigation.**

Since the potential level of traffic noise reduction that would be achieved by the General Plan's Safety and Noise Element is uncertain at this time and cannot be guaranteed, future noise levels would increase by 3 dB or more and/or potentially expose noise-sensitive land uses to conditionally acceptable or higher noise levels. This impact would remain **significant and unavoidable**.

4.13.6 References

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U.S. Federal Transit Administration (FTA). *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. Washington, DC. September 2018.

List of Acronyms, Abbreviations, and Symbols

Acronym / Abbreviation	Full Phrase or Description
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	Decibels, A-Weighted
dBV / VdB	Decibels, Velocity
L_{dn} / DNL	Day-Night Noise Level
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GPU	General Plan Update
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
In/sec	Inches per second
L_{eq}	Average / Equivalent Noise Level
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
LT	Long Term (noise measurement)
OITC	Outdoor/Indoor Transmission Class
PPV	Peak Particle Velocity
ST	Short Term (noise measurement)
STC	Sound Transmission Class
TIA	Traffic Impact Analysis
TNM	Traffic Noise Model

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4.14 – Population and Housing

This section describes existing population and housing conditions in the Planning Area. The section also includes a discussion of the regulatory framework necessary to evaluate potential environmental impacts resulting from the General Plan Update (GPU), describes potential impacts that could result from the plans, and discusses goals and policies that would avoid or reduce those potential impacts, if any.

This section examines population and housing growth factors during the life of the proposed GPU (2019-2040), including the Housing Element (2013-2021). Housing and population employment estimates and projections for the Planning Area were obtained from the Land Use and Community Design Element of the proposed GPU.

4.14.1 Environmental Setting

Desert Hot Springs currently consists predominantly of low-density residential development, several commercial centers at key intersections, a pedestrian scale downtown, and light industrial uses on the periphery. Much of the Planning Area is undeveloped; there are areas on the periphery of the City where newer housing developments have been started. Indoor cultivation of cannabis for commercial purposes occurs in the southern portion of the City. Since incorporation in 1963, the City has seen periods of surging population growth, particularly between 1980 and 2010. During the Great Recession of 2007 to 2009, there was little growth or development. As of 2018, the population of the Planning area is 48,550.

Population
The City is expected to grow over the course of this GPU. As of 2018, the City has a population of 29,390, which is projected to grow to 88,476 by 2040, representing a 201% increase. See Table 4.14-1. The SOI, with an area of approximately 17,837 acres, has a 2019 population of 19,160 as estimated by the Land Use and Community Design Element. The 2018 total population for the Planning Area is estimated to consist of 48,550 persons. By 2040, the Planning Area is anticipated to consist of 136,402 persons.

Housing
The City has an estimated 11,562 housing units in 2018. This figure represents a 6% increase when compared to the 10,902 housing units in 2010. Housing stock in the City primarily consists of single-family residential units as indicated in Table 4.14-1. As of 2018, the SOI contains approximately 7,538 dwelling units, and 19,100 in the entire Planning Area.

Table 4.14-1
General Plan Update Population, Housing and Land Use 2018-2040

Land Use Type	Desert Hot Springs		Sphere of Influence		Planning Area	
	2018	2040	2018	2040	2018	2040
Single Unit	8,358	22,214	7,292	18,025	15,650	40,239
Multiple Unit	3,204	12,594	246	831	3,450	13,425
Total	**11,562**	**34,808**	**7,538**	**18,856**	**19,100**	**53,664**
Population	29,390	88,476	19,160	47,926	48,550	136,402
Non-Residential Building Sq. Ft.	2,655,016	13,140,605	559,250	7,209,099	3,214,266	20,349,704
Employees	4,162	14,611	1,020	5,920	5,182	20,531
Hotel/Motel Rooms	755	1,652	--	--	755	1652
Students	6,326	12,900	763	7,100	7,089	20,000

Source: Table LU-2 Land Use Plan Buildout. Land Use and Community Design Element, City of Desert Hot Springs General Plan Update, April 2019

Employment
According to Southern California Association of Governments (SCAG), Desert Hot Springs has an employment base of 4,162 in 2019. The SOI provides an estimated employment base of 1,020, bringing the total employment base for the Planning Area to approximately 4,523 jobs, per the Land Use and Community Design Element of the General Plan Update.

Table 4.14-2
City of Desert Hot Springs Housing

Unit Type	2010	Percent	2018	Percent
Single Unit	7,304	67%	7,487	65%
Multiple Unit	2,944	27%	3,204	28%
Mobile Homes	545	5%	871	8%
Total	**10,902**	--	**11,562**	--

Note: Data may not add due to rounding.
Source: Table 3-1 Existing Land Use Distribution, Project Description Table H-3, H-11 Housing Element, City of Desert Hot Springs General Plan Update April 2019

4.14.2 Regulatory Framework

Federal

U.S. Department of Housing and Urban Development (HUD): HUD oversees the Federal Housing Administration (FHA), the largest mortgage insurer in the world, as well as regulates housing industry business. Provides Project-Based Rental Assistance and other rental assistance programs, which provide support for low and very low-income households.

State

California Department of Housing and Community Development (HCD): HCD enforces standards for housing construction, maintenance of farmworker housing, and manufactured/factory-built homes. HCD also proposes amendments to California's residential building standards for new construction to the California Building Standards Commission and helps train local government to better understand new requirements. HCD works with regional governments to determine their housing needs and reviews every city and county's housing element of the general plan to determine compliance with State law.

Housing Element Law (California Government Code Article 10.6): The State has established detailed legal requirements for the General Plan Update (GPU) Housing Element beyond Section 65300. State Law requires each City and County to prepare and maintain a current Housing Element as part of the community's GPU to attain a Statewide Goal of providing "decent housing and a suitable living environment for every California family." Under State law, Housing Elements must be updated every five years and reviewed by the California Department of Housing and Community Development (HCD).

California Department of Finance Demographic Research Unit: The Demographic Research Unit uses population data to establish appropriation limitations; distribute various federal program funds and aid in the planning and evaluation of programs. State agencies and departments, local governments, the federal government, school districts, public utilities, the private sector, and the public use the data. Staff provide demographic research and analysis, produce current population estimates, and future projections of population and school enrollment, and disseminate U.S. Census data.

Local

Desert Hot Springs Housing Element 2013-2014: Concurrent to this report, MIG is preparing an Initial Study/Negative Declaration for the Desert Hot Springs 2013-2014 Housing Element as required by HCD. The project is the adoption of the Desert Hot Springs Housing Element 2013-2021 as an amendment to the General Plan. HCD determined that the prior drafts of the Housing Element were out of compliance with the provisions of State housing element law (Article 10.6 of the Government Code).

Housing Authority of the County of Riverside (RHA): The RHA is a public agency chartered by the State to administer the development, rehabilitation or financing of affordable housing programs. The RHA works with the City to administer the Housing Choice Vouchers Program; support the County Housing Authority's applications for additional allocations; and assist the Housing Authority in marketing the program to home seekers and property owners.

Southern California Association of Governments (SCAG): Southern California Association of Governments (SCAG) is a joint powers authority, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

- **Regional Housing Needs Assessment (RHNA)**: Is developed through a process directed by SCAG. The RHNA represents the number of housing units–divided into various household income categories–that have been calculated to represent Desert Hot

Springs' "fair share" of the regional housing need during the Housing Element planning period. By law, the City is required to show in the Housing Element that adequate sites are available to accommodate construction of new housing units consistent with the RHNA.

Desert Hot Springs General Plan

The Housing and Land Use and Community Design elements of the GPU addresses population and housing. Several policies are identified in these elements to maintain housing services of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy H-2.1: Facilitate Affordable Housing
- Policy H-2.2: Housing Production
- Policy H-2.4 Homelessness
- Policy H-4.2: Substandard Rehabilitation
- Policy H-4.3 Substandard Unit Compliance
- Policy H-4.5 Rehabilitation Programs
- Policy HW-1.5: Aging in Place
- Policy LU-1.1: Balanced Growth
- Policy LU-1.2: Complete Neighborhoods
- Policy LU-1.6: Infill Revitalization.
- Policy LU-2.2: Development Transitions

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.14.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?

B. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

C. Would the project cause substantial adverse cumulative impacts with respect to population and housing?

4.14.4 Environmental Impacts

A. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?

According to the GPU, the City is expected to grow in population from 29,390 in 2018, to 88,476 by 2040, representing an increase of 201%. Population growth in the General Plan exceeds the projected population growth forecast from the SCAG. During the same period, SCAG estimates a 100% increase from the 2018 population of 29,390 to 58,900 by 2040. By 2040, the Planning Area is anticipated to consist of 53,664 dwelling units, more than doubling the number of housing units in the Planning Area.

The rollover RHNA from the previous planning period (2008-2014) combined with the current remaining RHNA (2014-2021) yields a total RHNA of 7,120 units that must be accommodated in the 2014-2021 Housing Element. Unit distribution is as follows: 2,797 extremely low/very low-income units, 1,856 low-income units, 650 moderate-income units, and 1,817 above moderate-income units. Overall, the City has the ability to adequately accommodate and exceed RHNA obligations, given ample vacant lots and infill policies (see below).

The General Plan does not determine the rate of growth in Desert Hot Springs; rather, it allocates growth as it occurs in accordance with the City's policies for type, intensity, and location as set forth in the GPU. New development occurring in currently undeveloped areas would be required to expand infrastructure to serve their development, but such expansion would not occur on its own to induce growth. Therefore, the GPU is not structured to induce population growth that would not otherwise occur in Desert Hot Springs, and the impact from the GPU would be less than significant. The City is planning for this growth and has incorporated policies to match this forecasted growth. To meet growth, the City will prioritize infrastructure improvements, code enforcement, and public services provision in high-need areas. To balance the growth, the City will support development and growth that balance residential, commercial, industrial, and open space uses in a manner that meet the needs of the community without overburdening community resources and infrastructure. To plan for the intensification of land use, the City has adopted policies to encourage infill development, including revitalization of underutilized and vacant infill properties closest to available infrastructure and community services.

Physical impacts from increased population growth in itself are less than significant. To adequately assess the indirect impacts of population growth, impacts from the following sections are listed below:

- Air Quality
- Biological Resources
- Greenhouse Gasses
- Public Services
- Utilities

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The GPU does not propose any policies that are intended to or that would indirectly result in displacement or demolition of any permanent or temporary residential structures, or otherwise result in displacement of people or businesses. Overall, the GPU policies increase the number of housing units in the Planning Area.

According to the 2019 Housing Element, Desert Hot Springs has a remaining RHNA of 4,040 units for the 2014-2021 RHNA planning period, after credits for permitted or approved units are taken into consideration. The residential sites inventory to address the current 2014-2021 RHNA consists of over 3,700 acres of vacant land with capacity to yield at least 9,009 new units.

Over time, some older existing structures might be removed due to deterioration. Others may be replaced by more efficient and valuable land uses. Redevelopment could occur whether the proposed GPU is adopted or not; therefore, the proposed plan would have no effect involving displacement of housing or businesses. Additionally, there are no specific policies are included within the GPU requiring or encouraging demolition of existing structures, so the impact will be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

C. Would the project cause substantial adverse cumulative impacts with respect to population and housing?

Implementation of the GPU would result in increased residential density which would increase the population of the City. The City would ensure that existing regulations and land use policies are used to avoid or reduce an identified potential environmental impact. Although some existing housing units are susceptible to redevelopment, the amount of new housing that will be needed exceeds the housing that could be replaced.

In most cases, no one goal, policy, or implementation measure (“policy” for short) is expected to completely avoid or reduce an identified potential environmental impact. However, the collective, cumulative mitigating benefits of the policies listed above will result in a less-than-significant impact related to population and housing. This conclusion is consistent with the purpose and use of a program EIR for a GPU (see EIR Introduction, Section 1).

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation needed.

4.14.5 References

California Department of Finance. City of Desert Hot Springs General Plan Update GIS data, SCAG, 2019.

City of Desert Hot Springs General Plan Update. Table LU-2 Land Use Plan Buildout, Land Use Element, April 2019.

Southern California Council of Governments. City of Desert Hot Springs Sphere of Influence 2016. http://gisdata-scag.opendata.arcgis.com/datasets/0972b675b88445e7a8d6158fa24cfddc_0?geometry=-119.425%2C33.549%2C-114.198%2C34.347 [Accessed July 17, 2019]

Southern California Council of Governments. 2016-2040 Regional Transportation Plan/Sustainable City Final Growth Forecast, April 2016 http://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf [Accessed July 18, 2019]

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4.15 – Public Services

This section analyzes potential impacts associated with maintaining public services at desired levels, while growth occurs as a result of the General Plan Update (GPU); this section also considers the policies in the Safety and Noise, Land Use and Community Design, Open Space and Health and Wellness Elements. Public services are examined with respect to Fire Protection and Emergency Medical Services, Law Enforcement and Public Safety, Public Schools, Parks and Libraries.

4.15.1 Environmental Setting

Fire Services

Areas in the northern and western portions of the Planning Area, most of which are located within the sphere of influence, are located within a state responsibility area (SRA). Exhibit 4.15-1 shows the SRAs along with fire hazard severity zones. An SRA designates those areas of the State where the California Department of Forestry (CDF) has responsibility for wildland fire protection. The Joshua Tree National Park is located at the northeast boundary of the Planning Area and is also in a SRA. These areas fall within the State's Riverside Operational Unit, which also operates the Riverside County Fire Department (RCFD) under contract. As per the mutual aid agreement, aid and services will be provided when called upon. Much of the hills surrounding the City are designated as having a high or very high fire hazard. Due to the limited vegetation in the Planning Area, wildland fires typically have a slow rate of spread unless influenced by the weather (wind) or topography.

In 2018, approximately 76% of Fire Department calls were for medical emergencies. All the fire engines that respond to emergencies in Desert Hot Springs are advanced life support (ALS) vehicles equipped to provide medical aid. All ambulance services and paramedic personnel are provided through a cooperative agreement with American Medical Response (AMR). AMR has the Emergency Medical Services contract for all of Riverside County.

The RCFD currently has two fire stations (Exhibit 4.15-2); the map also shows areas where there may be future needs for fire services. Station #36 and Station #37, which, together, responded to approximately 5,746 calls in FY15. These calls included medical emergencies, vegetation and structure fires, vehicle accidents, public assistance and false alarms. The fire stations provide fire service coverage for both developed and rural portions of the Planning Area.

> **Station #36 – Skyborne. 11535 Karen Ave -** This station is equipped with one Type-1 fire engine and is staffed with three on-duty personnel 24 hours / 7 days a week. This station was constructed in 2010 to improve the level of service on the West end of the City.
>
> **Station #37 - Desert Hot Springs. 65958 Pierson Boulevard, next to City Hall -** This station is equipped with one Type 1 engine (staffed) and one Type 1 reserve engine (unstaffed). There are 3 on-duty personnel. The station was constructed in 1993, and there is an internal RCFD recommendation to move Station 37 to south of Hacienda along Mountain View Road or construct a new station in the northern section of the Coachella Planning Area near the intersection of Mountain View and Dillon Roads (south of Hacienda drive).

The Planning Area is also supported by other Riverside County fire stations and mutual aid agreements with proximate jurisdictions. Riverside County Fire Department fire stations outside of the City can respond to fire emergencies within Desert Hot Springs, helping to further improve fire services to the community (RCFD Contract Fees), while the Hemet Ryan Air Attack Base provides support for wildland fires and other rescue operations. Given the large number of firefighters that are required to respond to a high-risk, high-consequence fire, Fire Departments routinely rely on automatic and mutual aid agreements to address the varying fire suppression needs. RCFD has a mutual aid agreement with the Palm Springs Fire Department and Cathedral City Fire Department that allows each agency to provide fire protection and emergency medical aid response services to areas within the Planning Area. If additional resources are needed due to the intensity or size of a fire, RCFD has an automatic aid agreement between all stations in the County and will send units as needed. These resources can be requested at any time to respond quickly and efficiently to fire events (Snyder 2019). The County also has joint response areas that are reviewed by all involved fire chiefs annually and adjusted if necessary, to ensure reciprocity. In addition to local joint response, all fire departments in California are signatory to a master mutual aid agreement. This agreement was established to aid with major incidents. The agreement states that “political subdivisions will reasonably exhaust local resources before calling for outside assistance.”

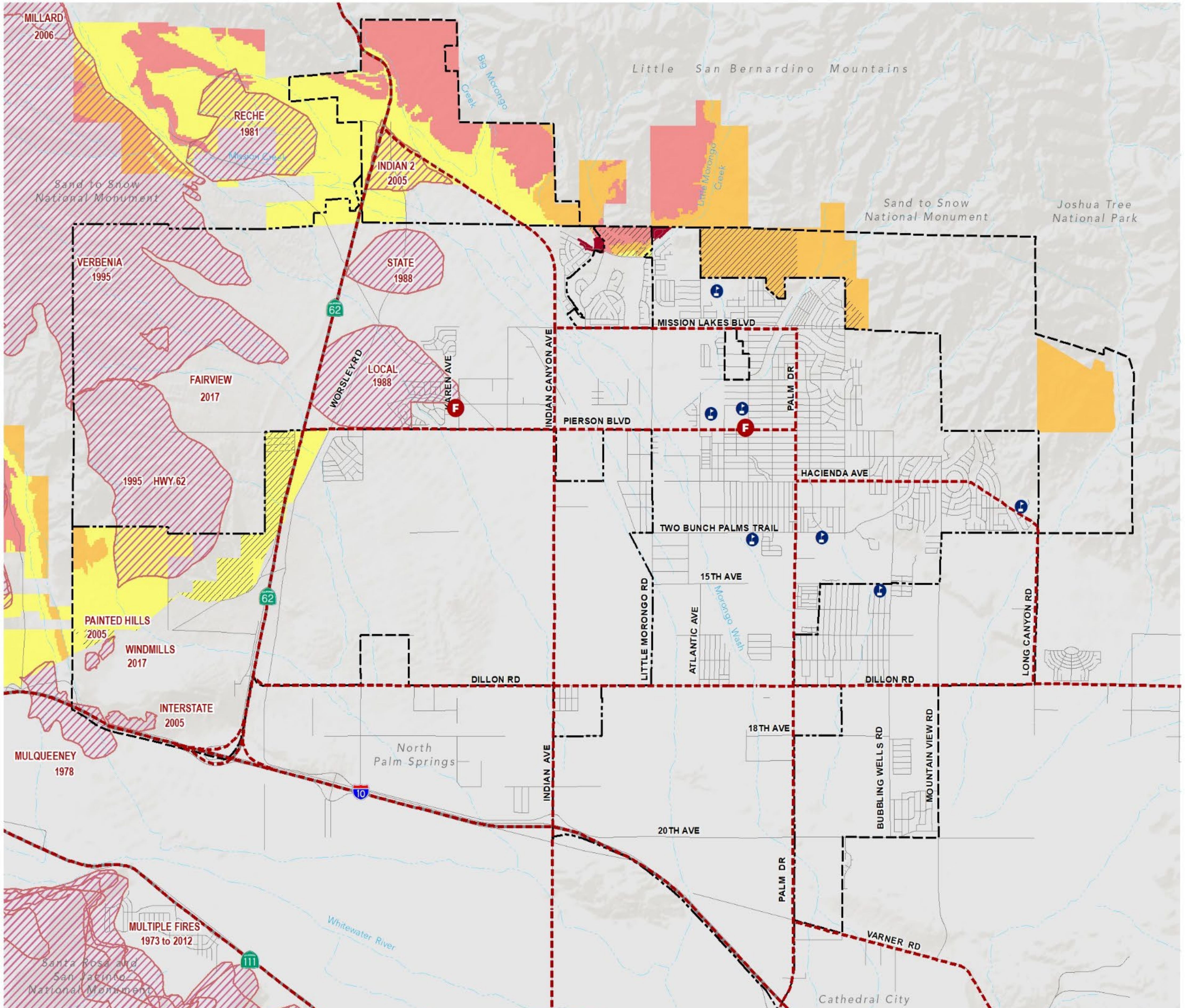
Police Services

The City of Desert Hot Springs Police Department provides the citizens of the Planning Area with police services and protection. Service is primarily provided from the Police Department Office at 65-950 Pierson Blvd. Additional personnel are provided at a satellite office at the Police Neighborhood Office at 66140 West Arroyo located in Tedesco Park. Police services are dispatched from the Police Department Office, but the satellite office is centrally located for greater police presence in the neighborhood and efficient response. Table 4.15-1 (Desert Hot Springs Police Department Staffing) details the current staffing of the Police Department.

The Police Department is authorized for 33 sworn staff, but currently there are 30 sworn officers. There is a new Code & Cannabis Compliance division with 9 staff. The Police Department, Animal Care and Control, and Code & Cannabis Compliance currently have 43 vehicles and three trailers. They have marked and unmarked vehicles, motorcycles, command post trailer, and two other trailers. The Department does not have any off-highway vehicles (Pittenger 2019).

The City’s Police provide a variety of community resources, offering technical expertise to those in the community who want to organize neighborhood watch programs, need crime prevention materials, child safety materials, tours of the agency, or specialized presentations on Department operations. The Community Resources Specialist organizes an annual open house, National Night Out, the community police academy and the junior police camp. Other programs include the Jr. Police Camp, Community Police Academy, and the Citizens on Patrol Program (COPP) that trains volunteers in areas like traffic control, safe patrol techniques, CPR, and first aid.

Exhibit 4.15-1: Fire Hazard Severity Zones



Fire Hazard Severity Zones (State Responsibility Areas)
- Very High
- High
- Moderate

Fire Hazard Severity Zones (Local Responsibility Areas)
- Very High

- Historic Fire Perimeters (1973 to 2017)
- Evacuation Routes
- Riverside County Fire Stations
- Existing and Planned Residential Development in Local and State Responsibility Areas

Base Map Features
- City Boundary
- Sphere of Influence
- Water Courses
- Public Schools

Source: CAL FIRE's Fire and Resource Assessment Program, 2009 and Riverside County GIS (accessed August 2019.)

Date: August 2019

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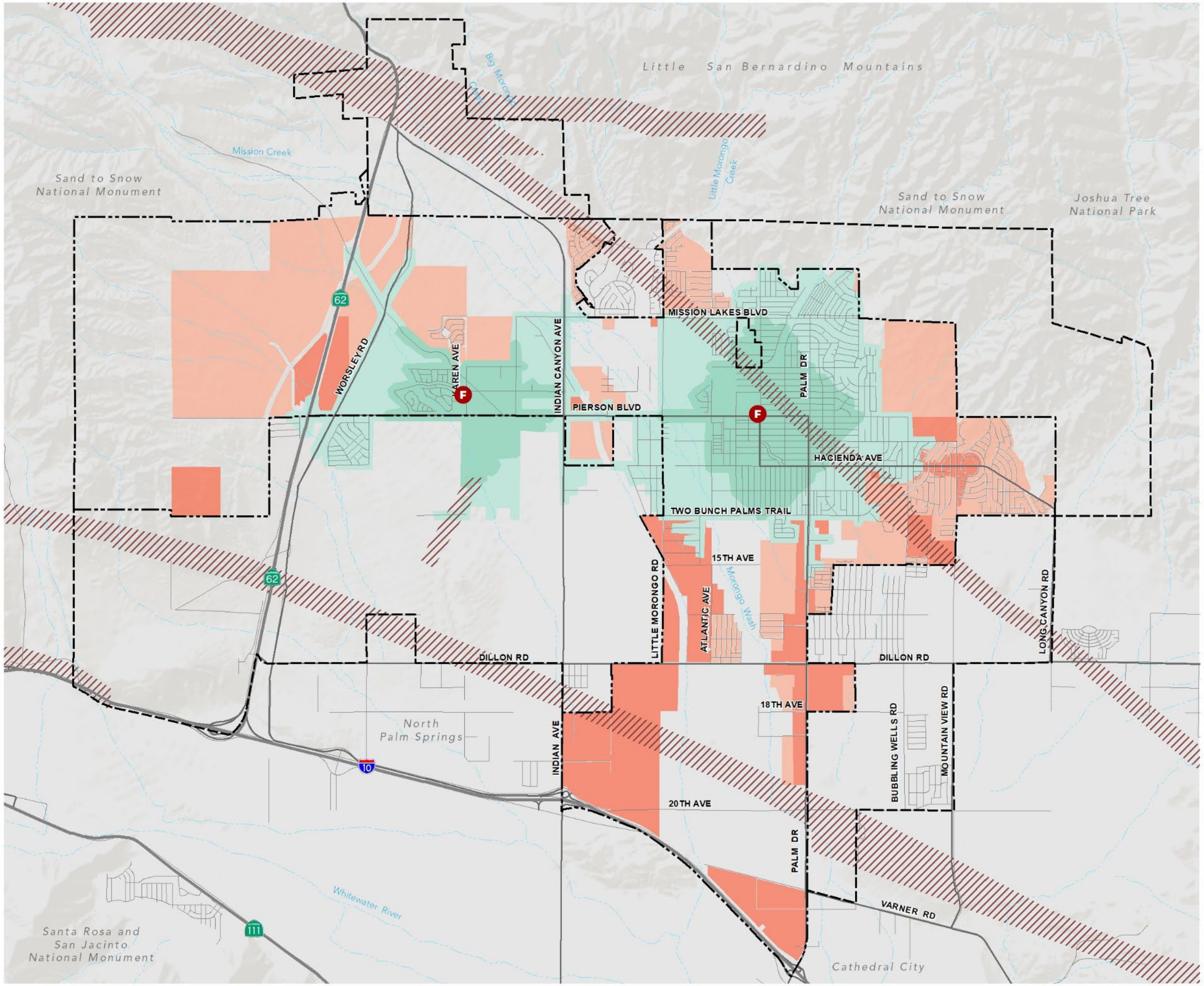
Exhibit 4.15-2: Fire Station Service Areas



Riverside County Fire Stations

Fire Station Service Areas

Areas within 1-Mile from Fire Station

Areas within 2-Miles from Fire Station

Areas of Need

Established/Future Residential Use

Established/Future Non-Residential Use

Physical Constraints

San Andres Fault Zone

San Andres Fault Zone

Base Map Features

City Boundary

Sphere of Influence

Water Courses

Source: City Of Desert Hot Springs and Riverside County.
Date: January 2019.

0 0.25 0.5 1 1.5 2 Miles

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Table 4.15-1
Desert Hot Springs Police Department Staffing (2019)

Position	Staffing Levels
Sworn Personnel	
Chief	1
Deputy Chief	0
Commander	2
Sergeant	5
Police Officer	22
Non-Sworn Personnel	
Admin Assistant	1
Community Resource Specialist	1
Community Services Officer	2
Crime Scene Investigator	1
Management Analyst	1
Property and Evidence Technician	1
Records Supervisor	1
Support Services Manager	1
Total	41

In 2018, the DHSPD responded to 36,830 calls for service, which includes calls for service and officer-initiated calls. The Department had a 3.1-minute response time in 2018 for Priority 1 calls. Priority 1 calls are serious in progress crimes which can include homicides, assaults, and burglaries (Pittenger 2019). The target response time for the Police Department is three minutes. Currently, there are no plans for any new Police Department facilities in the Planning Area. The Police Department maintains mutual aid agreements with the California Highway Patrol, Riverside County Sheriff's Department, and all other law enforcement agencies in Riverside County.

Schools

The Planning Area is served by the Palm Springs Unified School District. In the Planning Area, there are five elementary schools, two middle schools, and one high school, as well as the Wenzlaff Education Center, a continuation school. Table 4.15-2 below outlines the schools' capacities and 2018 enrollment showing a total of approximately 7000 students in the area.

New developments in the Planning Area result in increased property taxes which would assist in paying for the incremental increases in demand for public services. Additionally, the City and other public service providers require development impact fees to maintain schools to meet demand service levels. Development fees are $0.61 per square foot for commercial developments and $3.79 per square foot for residential developments.

Table 4.15-2
Palm Springs Unified School District Capacity (Desert Hot Springs and SOI)

Elementary Schools	**Capacity**	**2018 Enrollment**
Bella Vista Elementary School	780	765
Bubbling Wells Elementary School	760	712
Cabot Yerxa Elementary School	730	701
Julius Corsini Elementary School	485	444
Two Bunch Palms Elementary School	835	807
Middle Schools		
Desert Springs Middle School	945	965
Painted Hills Middle School	800	819
High School		
Desert Hot Springs High School	1,750	1,770
Continuation School		
Wenzlaff Education Center	150	--
Source: Palm Springs Unified School District CBEDS, 2018		

Parks
As of 2019, the City maintained three community gathering facilities: 1) a multi-use facility that includes the Desert Hot Springs Recreation Center, Health & Wellness Fitness Center, and the John H. Furbee Aquatics Center at Wardman Park, which includes pool tables, computer lab, space for the Boys & Girls Club, other indoor activities for youth; 2) the senior center, which provides computers, a kitchen, dining room, and an exercise and performance room; and 3) the Henry V. Lozano Community Center at Guy J. Tedesco Park, which provides a plaza, restrooms, community meeting rooms, kitchen.

The Parks and Recreation Department maintains an agreement with the Palm Springs Unified School District for certain recreation uses at Desert Hot Springs High School. This arrangement expands the supply of specialized park space. While joint use agreements can be difficult to negotiate due to issues involving maintenance, scheduling, safety, and liability, the City recognizes the pluses of joint-use facilities and is committed to continuing such arrangements.

Additionally, the City is regarded as a “recreational gateway” to two federally protected areas. Both federal areas link the habitat protected under the Coachella Valley Multi-Species Habitat Conservation Plan and feature camping, trails, desert specific ecosystems, and rock formations.

Libraries
The library system in Desert Hot Springs is operated by the Riverside County Library System. The County is responsible for setting its own standards, policies and regulations with regards to providing library services. Desert Hot Springs Branch Library is located at 11691 West Drive.

In April 2019, a new library facility got approved that would be a 15,000-square-foot branch at Palm Drive and Park Lane, replacing the 3,527-square-foot library at 11691 West Drive (Desert Sun). The Riverside County Library System utilizes an unadopted standard of 0.5 sq. ft. per resident; the newly approved facility puts the City of Desert Hot Springs in compliance with this standard. Residents are also served by five other County of Riverside Library branches in the Coachella Valley.

4.15.2 Regulatory Framework

Federal

Standardized Emergency Management System and National Incident Management System (SEMS): According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander. Additional information regarding the City's SEMS program can be found in Section 4.9 Hazards and Hazardous Waste.

State

California Building Code: The 2010 California Building Code (CBC) became effective January 1, 2011, including Part 9 of Title 24, the California Fire Code. Section 701A.3.2 of the CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the chapter.

California Health and Safety Code (Sections 13000 et seq.). This code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Fire Code: The City of Desert Hot Springs has adopted the 2016 California Fire Code, with amendments to address specific local conditions and needs (Desert Hot Spring Municipal Code). These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. Specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency 'Very High Fire Hazard Severity Zone' or within a State Responsible 'Moderate', 'High', or 'Very High Fire Hazard Severity Zone'.

Education Code Section 17620: The Code allows school districts to assess fees on new residential and commercial construction within their respective boundaries. These fees can be collected without special city or county approval, to fund the construction of new school facilities necessitated by the impact of residential and commercial development activity. In addition, these fees can also be used to fund the reconstruction of school facilities or reopening schools to accommodate development-related enrollment growth. Fees are collected immediately prior to the time of the issuance of a building permit by the City or the County. Additionally, Riverside County has a $179 development fee for libraries for single family houses in the Western Coachella Valley.

Leroy F. Green School Facilities Act (1998): California Government Code Section 65995 sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the District.

Local

Riverside County Fire Department/CalFire: RCFD has a cooperative agreement with CalFire to bring Fire and Emergency services to the City. Programs sponsored and coordinated by the Fire Department include Public First Aid and CPR classes, National Incident Management System (NIMS) Training for elected officials, and the Fire Marshall Program.

County of Riverside Office of Emergency Services (OES): Provide public training and organization for Community Emergency Response Teams (CERTs). When major damage results from any type of significant emergency, they assist the public. OES Provides multiple disaster preparedness presentation and supports the public and fire department personnel at major emergencies. The office developed and maintained the County Emergency Operations Plan as well as the Hazard Mitigation Plan for Riverside County.

Palm Springs Unified School District (PSUSD): The City Parks and Recreation Department maintains an agreement with PSUSD for certain recreation uses at Desert Hot Springs High School. This arrangement expands the supply of specialized park space and benefits local youth. The City is committed to the joint agreement involving maintenance, scheduling, safety and liability. The Planning Area is served by five elementary schools, two middle schools, and one high school, and a continuation school, which is covered in section 4.14 covering Population and Housing.

Quimby Act (1975). The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland. With the anticipated population growth, the City will use impact fees from development projects to fund park construction. The City has adopted an ordinance implementing the provisions of the Quimby Act (Desert Hot Springs Municipal Code). Additionally, The City has an allocation towards construction and improvement of community facilities in its Development Impact Fees, and special fees for projects in conservation areas (covered in Recreation section). The City also collects fees from property owners in the City based on zones within the City. New residential developments pay fees that support park resources; for example, developers of new detached dwellings pay $2,795 for parkland development, $1660 for community centers, and $221 for the aquatic center. The City also collects fees from property owners in the City based on zones within the City.

Desert Hot Springs General Plan
The Health and Wellness, Safety and Noise and Open Space and Natural Resource Elements of the GPU addresses public services resources. However, policies that guide the City's evaluation of development proposals and inform CEQA adequate levels of fire, police, school and library services are located here: Land Use and Community Development, Mobility and Infrastructure, Open Space and Natural Resources, Safety and Noise, and Health and Wellness. Several policies are identified in these Elements to maintain and enhance the adequate levels of public services in the City as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-1.1: Balanced Growth
- Policy LU-1.2: Complete neighborhoods
- Policy LU-2.5: Adequate Services
- Policy LU-2.7: Higher Residential Density Corridor
- Policy LU-2.9: Residential master Plan Communities
- Policy LU-3.11: Efficiency in Providing City Services and Infrastructure
- Policy LU-9.1: Public Services
- Policy LU-9.5: Public Safety Siting
- Policy LU-10.1: Public Services. Parks and Open Space.
- Policy LU-10.6: Hillside Acquisition
- Policy LU-10.7: New Park Facilities
- Policy OS-1.7: Limited Public Access
- Policy OS-7.8: Scenic Vistas
- Policy SN-1.1: Police and Fire Protection
- Policy SN-1.2: Level of Service
- Policy SN-1.3: New Development Impacts
- Policy SN-1.4: Existing Development Proposal Review
- Policy SN-1.6: Sufficient Water Fire Flows
- Policy SN-1.7: Adequate Fire Resources
- Policy SN-1.9: Onsite Wildfire Prevention Measures
- Policy SN-1.14: Additional Fire Station
- Policy SN-1.15: Fire Department Review
- Policy SN-2.1: Adequate Police Resources
- Policy SN-2.2: Staff Ratio
- Policy SN-2.3: Police Response Times
- Policy SN-7.8: Appropriate Flood Plain Uses
- Policy HW-2.1: Park Access
- Policy HW-2.2: Park Standard
- Policy HW-3.4: Park Master Plan
- Policy HW-4.3: Sustainability
- Policy HW-6.4: Urban Trails
- Policy HW-6.6: Trail Expansion
- Policy HW-7.1: Schools to Meet Growth
- Policy HW-7.2: School District Coordination
- Policy HW-7.7: Library Partnerships

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.15.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection;

ii) Police protection;

iii) Schools;

iv) Parks;

v) Other public facilities.

B. Would the project cause substantial adverse cumulative impacts with respect to public services?

4.15.4 Environmental Impacts

A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire Protection

The proposed GPU would result in a substantial amount of development and increased population throughout the Planning Area. There is an estimated 34,564 new dwelling units that would house roughly 87,852 additional residents and 17,135,438 additional square feet of non-residential building space. Adoption of the proposed GPU would not directly create the need for any new or expanded facilities because the project does not authorize any particular development project or construction activities. However, the increase in growth potential that would be allow under the GPU would likely, at some point result in the requirement for new or expanded facilities.

If a fire facility is to be expanded or constructed as a result of buildout of the proposed GPU, the fire facility would undergo a development review process and be subject to an environmental review pursuant to CEQA. That environmental review would identify site-specific conditions and physical changes resulting from fire station expansion, construction of new fire stations, or trenching needed for fire flow and water supply.

The City has policies (1.7 Adequate Fire Resources and SN-1.14 Additional Fire Station) to examine construction of another fire facility and provide consistent levels of services as the population grows. Additional facilities will require further consultation and coordination with local fire officials as the demand for services increases in pace with the pace of new development and population growth. In an interview with Chief Eddy Moore, a fire station is desired in the southern section of the City within the vicinity of Palm Drive and Park Lane. Chief Moore pointed out that this station would be closer to the planned and existing marijuana cultivation businesses in the western and southern areas of the City. There is another identified area of need near Mountain View and Dillon intersections to help with response time in the northern Coachella Valley. Any additional stations would relieve Station 37 due to its limited size and proximity the San Andreas fault. A new station will need permanent funding provide by development impact fees and other funding sources and will undergo a permitting process pursuant to CEQA. The RCFD has a trigger of 2000 dwelling units for fire station; although new developments, for example, near an existing fire department would not require the construction or expansion of facilities.

There is high demand for service in the eastern part of the Planning Area, especially for EMS calls. By moving Station 37 east, most of the uncovered area would then be covered in eight minutes while providing good coverage east of station 37. There is currently a 4-minute overlap with Station 36 which would allow Station 37 to move east and still have good coverage. Relocating and/or building new fire station within the Planning Area has been under consideration. The interview with Eddy Moore suggests that building a fire station near Hacienda Ave and Mountain View Road is not a priority for fire staff, instead Moore mentions that areas around Dillon Road have slow fire response times due to lack of nearby fire station.

According to Fire Chief Ty Davis and Deputy Fire Marshal Adria Reinertson, there are several factors that influence where to add fire equipment or construct new facilities. When RCFD reviews development plans, size of development (dwelling units and/ or square footage), station locations and response times are all considered. The response time goal in the County is four minutes for the first engine in urban and suburban areas although this can fluctuate given the size of the county and relative level of development. Additionally, fire stations have been conditioned for every two thousand dwelling units as a benchmark for a review. The fire department examines proximity to nearest fire station is and whether it is practical to add another piece of apparatus rather than building a new station. New fire facilities will be constructed to accommodate growth and provide acceptable level of service in the Planning Area.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

Mitigation Measure PS-1: Annual quantitative fire services review and coordination.
The City Council shall annually consider, in conjunction with the state-required annual review of capital improvement projects for consistency with the General Plan, the need for increases in fire equipment and/or facilities, including the need for a new fire station. As part of this review, the City Council will receive for consideration the evaluation and recommendation of the Riverside County Fire Department (RCFD) for providing additional equipment or facilities, including the timing for providing such equipment or facilities. Criteria for determining need shall include, but not be limited to, existing and projected increases within the Planning Area of fire station response times for new development, emergency calls, ratio of RCFD staff to population, the capacity of existing fire stations in the Planning Area to house additional staff and equipment needed to serve existing and projected population.

If the City Council finds that additional equipment or facilities are needed, the City shall coordinate and consult with the RCFD to establish a viable funding method to provide for such facilities and equipment in a manner timely to ensure existing service levels, including response times are not impacted.

Mitigation Measure PS-2: Project Review.
All projects that are subject to CEQA review shall be evaluated to determine whether they can be provided adequate fire prevention and emergency medical services, including adequate response times. In the event that it is determined that adequate services cannot be provided, project specific mitigation may be provided to offset identified service deficiencies.

<u>Level of Significance After Mitigation</u>:

Less than significant.

ii) Police Protection

The build out of the proposed GPU would create increases in population and employment and a potential increase in demand on police services.

Desert Hot Springs Police Department provides police services for the City. The population of the City would be expected to increase under the GPU and the City monitors resource and service adequacy primarily by evaluating response times. Additionally, the City monitors adequacy based on officer to citizen ratios. Through this ongoing monitoring process, the City will determine when additional law enforcement/public safety services are needed and when/where to program construction of any new facilities that may be warranted. Additional facilities will require further consultation and coordination with local police officials as the demand for services increases with the pace of new development and population growth. In relation to police services, the City also has a policy to update the Public Safety Plan every five years to assess the challenges and needs as well as opportunities to provide the necessary level of services.

As of 2019, the Police Department provided 1.3 sworn officers for every 1,000 residents. The law enforcement standard is 1.5 sworn officers for every 1,000 residents; this is consistent with Policy SN-2.2 Staff Ratio. According to the General Plan Update, Police Department staffing will need to expand over time to continue to meet the changing needs of the growing Desert Hot Springs community. The response time for the Police Department is 3.1 minutes, as stated in the Police Setting section; Policy SN-2.3 Police Response Times provides a goal of 3-minutes.

If a new facility were to be built throughout the term of the GPU, it would need to comply with existing environmental regulations. If proposed, the facility would be subject to a development review process and the environmental review pursuant to CEQA. Environmental review would identify site-specific conditions and physical changes resulting from police station expansion and construction of new stations or substations.

<u>Level of Significance Before Mitigation</u>:

Less than significant.

<u>Mitigation Measures</u>:

No mitigation is required.

iii) Schools

New housing would be constructed over the long term as population growth occurs pursuant to the GPU. Construction of new homes would increase the number of school-aged children within the City. There are approximately 7,000 students being served by Planning Area public schools; it is projected that there would be approximately 20,000 students under the GPU in 2040. Pursuant to State law, collection of fees by School Districts is sufficient in mitigating any potential impacts to school facilities resulting from long-term growth in the community. Additionally, any required expansion or construction of school facilities would be subject to environmental review pursuant to State law and CEQA. School development fees are $0.61 per square foot for commercial developments and $3.79 per square foot for residential developments. The City, in collaboration with PSUSD, will continue to monitor growth in the Planning Area and there are policies to incorporate expanded school services to the growing population of Desert Hot Springs discussed in policy HW-7.1 Schools to Meet Growth. The City will coordinate with the school district to identify needs for new facilities, including locations, timing and funding for expanded or new classrooms as outlined in policy HW-7.2 School District Coordination. Specific impacts due to future construction of school facilities cannot be identified at this time, and the district is obligated to assess environmental impacts for all projects pursuant to CEQA.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

iv) Parks

The GPU includes policies that support the addition of parkland at all sizes, from regional to pocket parks. Additional recreational facilities potentially considered within the GPU include an aquatic center, and park renovations. Any expansion or construction of recreational facilities would be subject to environmental review pursuant to State Law and CEQA (Desert Hot Springs Parks Master Plan). Policies to develop better trail signage and systems are also recognized as an important access point to the protected lands outside of the Planning Area.

The district will continue to collect development fees to pay for the costs of expanded park facilities. The proposed GPU would not conflict with any park planning policies or hinder efforts to maintain adequate recreational facilities and would not contribute to any adverse environmental effects that may be associated with future park construction projects.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

v) Other Public Facilities

Library services in the Planning Area are provided by the Riverside County Library System. The Desert Hot Springs Branch Library is located at 11691 West Drive, and a larger library facility has been approved. The Plan proposes enhancing library facilities and expand electronic resources and operation hours. Desert Hot Springs' municipal code mentions that the library system will collect fees from a special fund to pay for the costs of expanded library facilities ($179 for Western Coachella Valley). Impacts due to expansion or creation of library facilities will be considered and will be evaluated pursuant to CEQA. There are no Federal, State, or local mandatory regulations that pertain to libraries and community facilities. Riverside County Library has a guideline of 0.5 sq. ft. of library space per resident; the newly approved facility will bring the City into compliance with this guideline. Additionally, the City is encouraging a policy (HW-7.7 Library Partnerships) to examine a partnership between the library and PSUSD.

Future development in the GPU would presumably increase demand for library resources. It should be noted that library services are increasingly being provided online and this trend is likely to continue. As such, exiting guidelines based on floor space may not be as applicable in the future.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Would the project cause substantial adverse cumulative impacts with respect to public services?

Development that results from the proposed GPU, in combination with other cumulative development in the Planning Area would increase the demand for all public services. Public services can be potentially impacted by increased population, especially when new facilities are not built to meet population increases or when existing facilities are not adequately maintained. Alternatively, impacts may also occur when new facilities are built, resulting in physical impacts to existing resources. Overall, the GPU accounts for both these scenarios. The GPU both provides guidelines to mitigate potential negative environmental impacts. Additionally, new facilities are subject to both the provisions of the GPU and compliance with CEQA, when required. Environmental review would identify site-specific conditions and physical changes resulting from school expansion. Typical impacts associated with new or expanded parks or recreation facilities include short-term construction activities related to air quality pollutant emissions, temporary traffic detours, changes in traffic distribution, and noise. Additionally, this EIR

New developments would result in increased property taxes which would assist in paying for the incremental increases in demand for public services. Additionally, the City and other public services providers require development impact fees to maintain service levels.

Level of Significance Before Mitigation:

Significant.

Mitigation Measures:

Regarding fire protection services, implementation of mitigation measures **PS-1** and **PS-2** will help to reduce cumulative impacts to less than significant

Level of Significance After Mitigation:

Less than significant.

4.15.5 References

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4.16 – Recreation

The following section discusses whether implementation of the General Plan Update (GPU) could result in increased use of existing recreational facilities resulting in physical deterioration of such facilities, or the need to construction or expansion of recreational facilities which have an adverse physical effect on the environment.

4.16.1 Environmental Setting

The City of Desert Hot Springs is a gateway to natural parks and monuments. Conservation areas protect sensitive species and the natural desert drainages of Upper Mission Creek, Big Morongo Canyon Wash, and Long Canyon Wash. The City has seven developed parks in addition to several recreational facilities that are shared with the Palm Springs Unified School District. In addition to park facilities, the City offers a community center for activities. There are no existing or proposed public recreational facilities located within the Sphere of Influence. A complete inventory of the City's existing parks and recreation facilities is provided below in Tables 4.16-1 and 4.16-2.

As of 2019, the City maintained three community gathering facilities: 1) a multi-use facility that includes the Desert Hot Springs Recreation Center, Health & Wellness Fitness Center, and the John H. Furbee Aquatics Center at Wardman Park, which includes pool tables, computer lab, space for the Boys & Girls Club, other indoor activities for youth; 2) the senior center, which provides computers, a kitchen, dining room, and an exercise and performance room; and 3) the Henry V. Lozano Community Center at Guy J. Tedesco Park, which provides a plaza, restrooms, community meeting rooms, kitchen.

The Parks and Recreation Department maintains an agreement with the Palm Springs Unified School District for certain recreation uses at Desert Hot Springs High School. This arrangement expands the supply of specialized park space. While joint-use agreements can be difficult to negotiate due to issues involving maintenance, scheduling, safety, and liability, the City recognizes the pluses of joint-use facilities and is committed to continuing such arrangements.

Table 4.16-1
Parkland Inventory

Park Name	Acres	Amenities
Wardman Park	6.6	Tennis courts, lighted baseball field, swimming pool, recreation building, picnic/BBQ area, Boys & Girls Club facility, open space areas, parking lot. Primary Little League facility
Mission Springs Park	12.0	Lighted baseball field, soccer fields, tot lot, restroom & concession building, parking lot.
Hot Springs Park	3.0	Two sets of hot springs, interpretive information area, participatory fountain, open space
Constitution Park	<0.5	pocket park with open space, chess tables
Guy J. Tedesco Park	4.0	Basketball courts, skate park, tot lot, picnic/BBQ area, recreation and restroom buildings
Veteran's Memorial Park	0.3	Pocket park with picnic tables, open space
Rotary Park	3.0	Picnic/BBQ area, tot lot, access to nature/hiking trails
Total	**28.9**	

Note: Numbers may not add up due to rounding
Source: General Plan Update Health and Wellness Element, City of Desert Hot Springs, 2019

Table 4.16-2
Community Facilities Inventory

Community Facility Name	Location	Amenities
Henry V. Lozano Community Center	12800 Arroyo Dr. Guy J. Tedesco Park	Plaza, restrooms, community meeting rooms, kitchen
Desert Hot Springs Senior Center	11777 West Dr.	Dining room, classrooms, kitchen
Carl May Community Center	11711 West Dr.	Plaza, restrooms, meeting rooms, kitchen
Cabot's Museum	66-616 Desert View Ave.	Walking trail, native garden, gallery, gift shop, interpretive center
Desert Hot Springs Branch Library	11691 West Dr.	33,000 volumes of various media
Desert Hot Springs Recreation, Center and Health & Wellness Fitness Center, and John H. Furbee Aquatics Center	11750 Cholla Dr. Wardman Park	Computer lab, fitness center, youth recreation equipment, health services and programs, Boys & Girls Club facility, and aquatics center
Riverside County Behavioral Health and Nutritional Services Center	14320 Palm Dr.	Clinic, health services and programs

Source: City of Desert Hot Springs and Riverside County, 2018.

The General Plan Update establishes a minimum standard of three acres of parkland for every 1,000 residents. Table 4.16-3 outlines the ratio of population and service levels. Together for all park types, as of 2019, the City provides an existing ratio of 1.34 park acres per 1,000 residents. Park facilities include baseball and soccer fields, basketball courts, tennis courts, a swimming pool, tot lots, picnic areas, and shelters. Based on the 2019 population, the City is deficient of approximately 59.3 acres to meet the minimum standard of three acres of parkland for every 1,000 residents. At the 2040 projected buildout population of 88,476, the City would require a total of 237.2 acres of parkland to achieve its level of service goal.

Table 4.16-3
City's Existing and Projected Park and Open Space Ratio

Year	Estimated and Projected Population	Existing Park Acreage	Desired Acreage of parkland per 1,000 persons	Park Acreage Deficiency
2019	29,390	28.9	88.2	-59.3
2040	88,476	----	265.4	-237.2*
**Note: This number assumes no new construction or increase of parks or park facilities from 2019 acreage.*				

Joshua Tree National Park (JTNP): JTNP is located to the northeast of the Planning Area. It has been a National Monument since 1936, and was declared a National Park in 1994, after passage of the California Desert Protection Act. The park encompasses approximately 800,000 acres and has over one million visitors a year. The abundance of recreational opportunities provided has resulted in a high number of visitors to the park. The park appeals to diverse groups offering many different forms of recreational activities such as nature walks, hiking, stargazing, horseback riding, camping, rock climbing, bird watching and educational programs. Along with the park's headquarters and visitors center, park facilities also include nine campgrounds with tables, fire pits and toilets. There are three primary entrances to JTNP. Direct access to the park from the Planning Area is currently not available by vehicle.

Sand to Snow National Monument: In 2016, the 154,000 acres West of Joshua Tree National Park were dedicated as the Sand to Snow National Monument. The monument spans the northern border of the City and is located within Riverside and San Bernardino Counties. The monument is known for its diversity in land and offer a wide variety of recreation activities including backpacking and stargazing. Both Sand to Snow and Joshua Tree protected areas link the habitat protected under the Coachella Valley Multi-Species Habitat Conservation Plan.

The City is also regarded as a "recreational gateway" to the above two federally protected areas. Both federal areas feature camping, trails, desert specific ecosystems, and rock formations. The City has adopted processes and procedures that include a requirement individual projects within a conservation area to receive a determination of consistency through the Joint Project Review with Coachella Valley Conservation Commission (CVCC). Additionally, for all projects located within the CVMSHCP boundaries, a conservation fee is required. This fee assists the CVCC to obtain property outside of development approvals.

4.16.2 Regulatory Framework

Quimby Act (1975). The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland. With the anticipated population growth, the City will use impact fees from development projects to fund park construction. The City has adopted an ordinance implementing the provisions of the Quimby Act (Desert Hot Springs Municipal Code). Additionally, the City has an allocation towards construction and improvement of community facilities in its Development Impact Fees, and special fees for projects in conservation areas (covered below). The City also collects fees from property owners in the City based on zones within the City.

State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409): The State Public Park Preservation Act is the primary instrument for protecting and preserving parkland in California. Under the act cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This ensures a no net loss of parkland and facilities.

Palm Springs Unified School District (PSUSD): The City Parks and Recreation Department maintains an agreement with PSUSD for certain recreation uses at Desert Hot Springs High School. This arrangement expands the supply of specialized park space and benefits local youth. The City is committed to the joint agreement involving maintenance, scheduling, safety and liability. The Planning Area is served by five elementary schools, two middle schools, and one high school, and a continuation school, which is covered in section 4.14 covering Population and Housing.

Desert Hot Springs General Plan: The Open Space, Natural, and Cultural Resources Element, Health and Wellness, Safety and Noise, and the Land Use and Community Design elements of the General Plan Update addresses recreation resources. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to recreational resources and parkland are addressed in the following elements: Land Use and Community Development, Safety and Noise, Open Space and Natural Resources, and Health and Wellness. Several policies are identified in these Elements to maintain and enhance recreational assets of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-1.2: Complete Neighborhoods.
- Policy LU-2.5: Adequate Services.
- Policy LU-2.7: Higher Residential Density Corridor.
- Policy LU-2.9: Residential Master Plan Communities.
- Policy LU-3.11: Efficiency in Providing City Services and Infrastructure.
- Policy LU-9.1: Public Services.
- Policy LU-10.1: Public Services. Parks and Open Space.
- Policy LU-10.3: Development Cluster.
- Policy LU-10.4:
- Policy LU-10.5: Preserve Hillside Areas.
- Policy LU-10.6: Hillside Acquisition.
- Policy LU-10.7: New Park Facilities.
- Policy LU-11.2: Cluster Development.
- Policy OS-1.8: Compatible Growth.
- Policy OS-1.15: Broaden Cooperation.

- Policy OS-7.8: Scenic Vistas.
- Policy SN-7.8: Appropriate Flood Plain Uses.
- Policy HW-2.1: Park Access.
- Policy HW-2.2: Park Standard.
- Policy HW-2.3: Recreational Programming Expansion.
- Policy HW-2.10: Joint-Use Facilities.
- Policy HW-3.4: Park Master Plan.
- Policy HW-4.1: Park Grants.
- Policy HW-4.2: Partnerships.
- Policy HW-4.3: Sustainability.
- Policy HW-4.4: Volunteer Programs.
- Policy HW-4.5: Fiscal Impacts.
- Policy HW-6.4: Urban Trails.
- Policy HW-6.6: Trail Expansion.

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.16.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

B. Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?

C. Would the project cause substantial adverse cumulative impacts with respect to recreation?

4.16.4 Environmental Impacts

A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Population increases in the Planning Area over the long term will result in additional use of existing City parks and recreation facilities, as well as parks and facilities owned by the Palm Springs Unified School District. Substantial deterioration of existing facilities could occur if the level of usage intensified significantly and the maintenance of affected park and recreation facilities did not keep pace with the intensification of use. The City has proposed policies to preserve, protect, and maintain open space, parks, and recreation facilities as critical spaces, recognizing that park use contributes to increases in quality of life. Although the City is deficient in terms of urban parks given the amount of population, there are numerous regional open spaces, including federally managed National Parks and BLM lands in close proximity to the City.

Pursuant to the Quimby act, the City collects development fees and property taxes to build new and maintain existing parks. With the increase in population and new construction necessary to serve the growing population, there will be an increase of development fees and property taxes collected. Levels of park maintenance and any future improvements to existing parks would be determined through the City's budgeting program and will vary from year to year, based on implementation of the additional General Plan Update policies described below.

The City has incorporated policies for diverse funding streams for maintenance of recreation facilities (Policy HW-4.1: Park Grants; Policy HW-4.2: Partnerships; Policy HW-4.4: Volunteer Programs). The City will pursue grant programs sponsored by public agencies, private groups, and foundations for park or open space purchases, development, and maintenance. The City will also evaluate partnership and annexation into the Desert Recreation District to finance construction/rehabilitation and maintenance of existing and new parks. Other stakeholders will be involved via partnerships similar to an "Adopt a Park" program, allowing volunteer groups and individuals such as the Rotary Club, the Hotelier's Association, and others to take charge of maintenance, funding, and equipment needs developing parks. As a part of fiscal impacts of park construction, the City will evaluate the development review process and the fiscal impacts of a proposed park's construction and continued maintenance on the City and/or a proposed homeowners association.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?

The General Plan Update would create the need for new or expanded recreational facilities because of the projected population growth and increase in service levels. The Desert Hot Springs 2013 Master Facilities Plan identifies park improvements and recommends development of a Community Park at Palm Drive and Park Lane (City of Desert Hot Springs Master Plan). The City has incorporated park construction in a policy to establish new parks to meet the needs of the community. The City will also enforce a policy to cluster development to preserve open space and to provide parkland and community services nearby.

Any environmental issues associated with the construction of potential new facilities will be subject to environmental review on a project-by-project basis pursuant to CEQA. Through that routine planning and environmental impact assessment process, significant environmental impacts that might result from park development will be identified, and measures to mitigate such impacts examined.

The City has proposed policies (Policy HW-2.10: Joint-Use Facilities; HW-4.2: Partnerships) and evaluated the feasibility of establishing active joint-use agreements with all private non-profit organizations and schools that have recreation facilities, such as playfields and multi-purpose rooms. These joint use-agreements help the City reduce its parkland deficiency and improve recreation services in the City and Planning Area over the term of the GPU.

The City will also encourage the development of public facilities in a manner which ensures high levels of service, are located to efficiently serve the community and are compatible with existing and future land uses. Pursuant to the Quimby Act, the City has adopted park dedication standards that require developers to set aside land, donate conservation easements, or pay fees towards parkland development. Further, recreational facilities developed as a result of GPU population growth, will undergo environmental review consistent with CEQA

With incorporation of the above policies, recreational facility construction and expansion will result in a less than significant impact.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

C. Would the project cause substantial adverse cumulative impacts with respect to recreation?

Section 4.16.4.B notes that there is no guarantee that new recreational facilities will be acquired, built, or expanded, and therefore specific potential environmental impacts cannot be identified or evaluated. However, if any facility is proposed to be constructed or expanded, it will be subject to environmental review on a project-by-project basis pursuant to CEQA. Through routine planning and environmental impact assessment process, significant environmental impacts that might result from park development, construction or improvement will be identified, and measures to mitigate such impacts examined.

Level of Significance Before Mitigation:

No impact.

Mitigation Measures:

No mitigation is required.

4.16.5 References

City of Desert Hot Springs. General Plan Update, Open Space and Natural Resources Element Page OS-4.

City of Desert Hot Springs. 2013 Parks and Recreation Master Plan. https://cdn2.hubspot.net/hubfs/4435988/pl%20Final%20Park%20&%20Rec.%20Master%20Plan%202013.pdf [Accessed August 1, 2019]

City of Desert Hot Springs Municipal Code Title 16.16.040 Parks and Recreation construction fee. http://www.qcode.us/codes/deserthotsprings/ [Accessed July 31, 2019]

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4.17 – Transportation and Traffic

This section evaluates transportation impacts associated with implementation of the Desert Hot Springs General Plan Update (GPU). Included in the analysis are issues identified by the CEQA Guidelines, including the Project's consistency with circulation programs and policies, the potential for design hazards, and the adequacy of emergency access. This section is based on a Traffic Impact Analysis (TIA) Report and TIA memo, completed by Ganddini Group, Inc., which is included as Appendix F.

4.17.1 Environmental Setting

The existing transportation network within the Planning Area is described below.

Existing Roadway System

The two major routes providing regional access for the City of Desert Hot Springs are Interstate 10 and State Route 62. Interstate 10 (I-10) provides regional east-west access from its westerly origin in Santa Monica, through the Coachella Valley, and eastward through the southern United States. I-10 is an eight-lane divided freeway through the region. Interchanges providing access for City of Desert Hot Springs are located at Indian Canyon Drive and Palm Drive.

State Route 62 (SR-62) generally trends in a north-south direction along the western side of the City before transitioning into an east-west orientation in Yucca Valley. SR-62 is a four-lane divided highway providing regional access from the junction at I-10 to its eastern terminus at US 95S at the Arizona state line. Primary access points for City of Desert Hot Springs access are provided at Indian Canyon Drive, Pierson Boulevard, and Dillon Road.

The TIA included the following table (Table 4.17-1) showing roadway classifications within the City as well as potential street capacity. Actual daily roadway capacity is a function of many factors, including, but not limited to, roadway alignment, intersection and driveway spacing, signal timing, lane widths, and duration of peak periods. Roadway segment volume-to-capacity ratios, based on daily traffic volumes, are used for planning level analysis to identify locations with potential peak hour deficiencies. Ultimately, actual roadway capacity is generally determined by peak hour intersection operations since intersections are typically the most constraining portions of a roadway. Exhibit 4.17-1 shows the current General Plan roadway classification within the City.

Table 4.17-1
Daily Roadway Capacity Estimates

Classification	Right-of-Way	Number of Lanes	Level of Service E Capacity
Urban Arterial	134 feet	8D	72,000
Major Arterial	110 feet	6D	54,000
Minor Arterial	110 feet	4D	36,000
Major Collector	100 feet	4D	36,000
Minor Collector	88 feet	4U	26,000
Secondary	80 feet	4U	26,000
Local Collector	60 feet	2U	13,000

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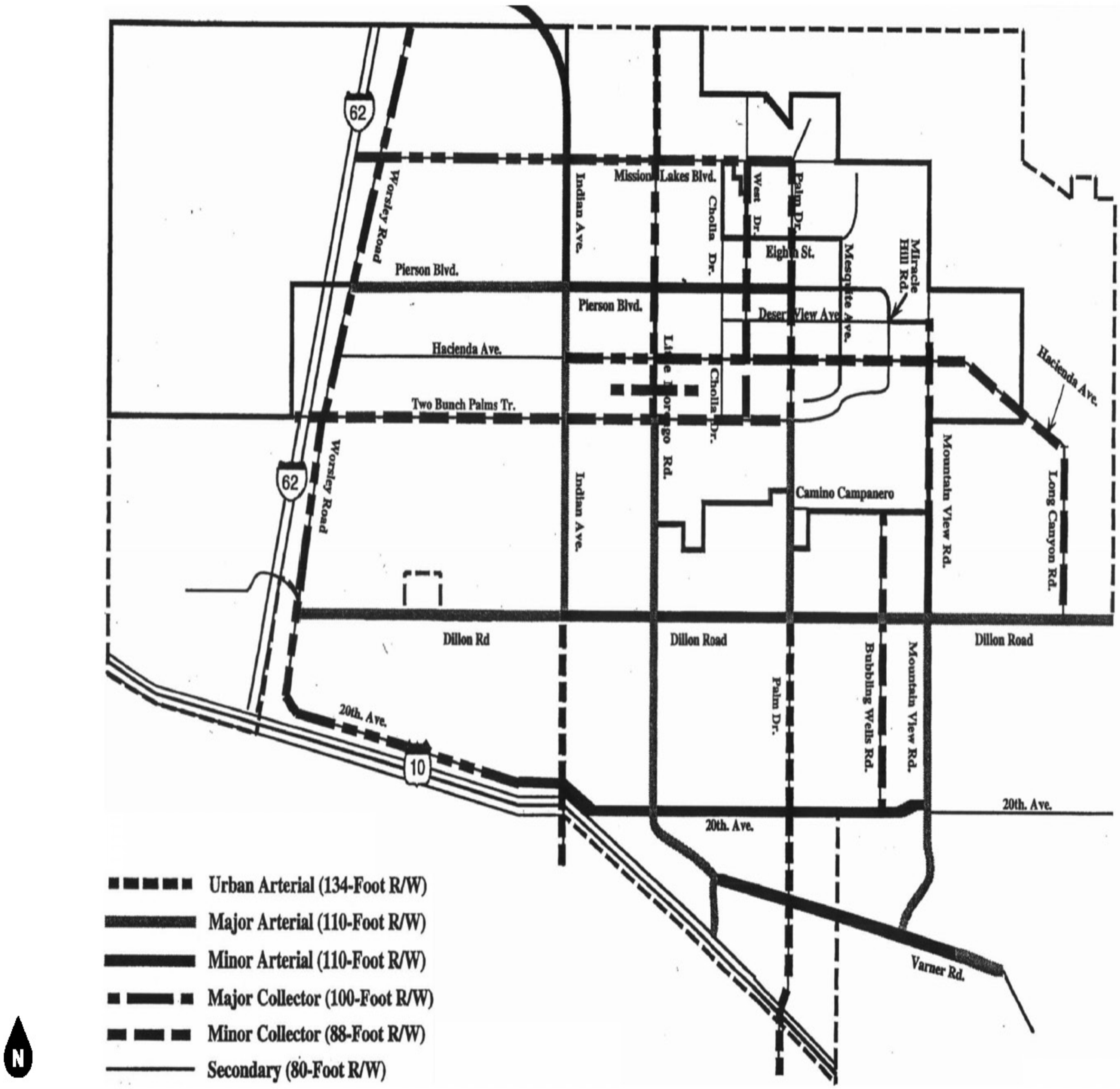

Source: City of Desert Hot Springs

Exhibit 4.17-1:
Current General Plan
Roadway Classification Map

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Study Area Intersections and Roadways

Study locations were selected based on review of previous General Plan updates, review of key intersections and roadway segments, and input from City of Desert Hot Springs engineering staff. Table 4.17-2 shows the study intersections and Table 4.17-3 shows the roadway segments evaluated within the TIA. The study intersection location are shown in Exhibit 4.17-2; figures showing lane geometries are located in the TIA (Appendix F).

Table 4.17-2
Study Intersections and Existing Traffic Controls

Number	Study Intersection	Existing Traffic Control
1	State Route 62 [SR-62] (NS) at Indian Canyon Drive (EW)	Traffic Signal
2	SR-62 (NS) at Pierson Boulevard (EW)	Cross Street Stop
3	SR-62 (NS) at Dillon Road (EW)	Traffic Signal
4	Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW)	Traffic Signal
5	Indian Canyon Drive (NS) at Pierson Boulevard (EW)	All Way Stop
6	Indian Canyon Drive (NS) at 14th Avenue (EW)	No Control
7	Indian Canyon Drive (NS) at Dillon Road (EW)	All Way Stop
8	Indian Canyon Drive (NS) at 20th Avenue (EW)	Traffic Signal
9	Little Morongo Road (NS) at Mission Lakes Boulevard (EW)	All Way Stop
10	Little Morongo Road (NS) at Pierson Boulevard (EW)	All Way Stop
11	Little Morongo Road (NS) at Two Bunch Palms Trail (EW)	All Way Stop
12	Little Morongo Road (NS) at Dillon Road (EW)	All Way Stop
13	*Little Morongo Road (NS) at 20th Avenue (EW)*	*Future Intersection*
14	Palm Drive (NS) at Mission Lakes Boulevard (EW)	All Way Stop
15	Palm Drive (NS) at Pierson Boulevard (EW)	Traffic Signal
16	Palm Drive (NS) at Hacienda Avenue (EW)	Traffic Signal
17	Palm Drive (NS) at Two Bunch Palms Trail (EW)	Traffic Signal
18	Palm Drive (NS) at Dillon Road (EW)	Traffic Signal
19	Palm Drive (NS) at 20th Avenue (EW)	Cross Street Stop
20	Palm Drive (NS) at Varner Road (EW)	Traffic Signal
21	Mountain View Road (NS) at Hacienda Avenue (EW)	Traffic Signal
22	Mountain View Road (NS) at Dillon Road (EW)	Traffic Signal
23	Mountain View Road (NS) at Varner Road (EW)	All Way Stop
24	Long Canyon Road (NS) at Dillon Road (EW)	All Way Stop

Notes:
(NS) North-South Roadway; (EW) East-West Roadway

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Exhibit 4.17-2: Study Intersection Locations

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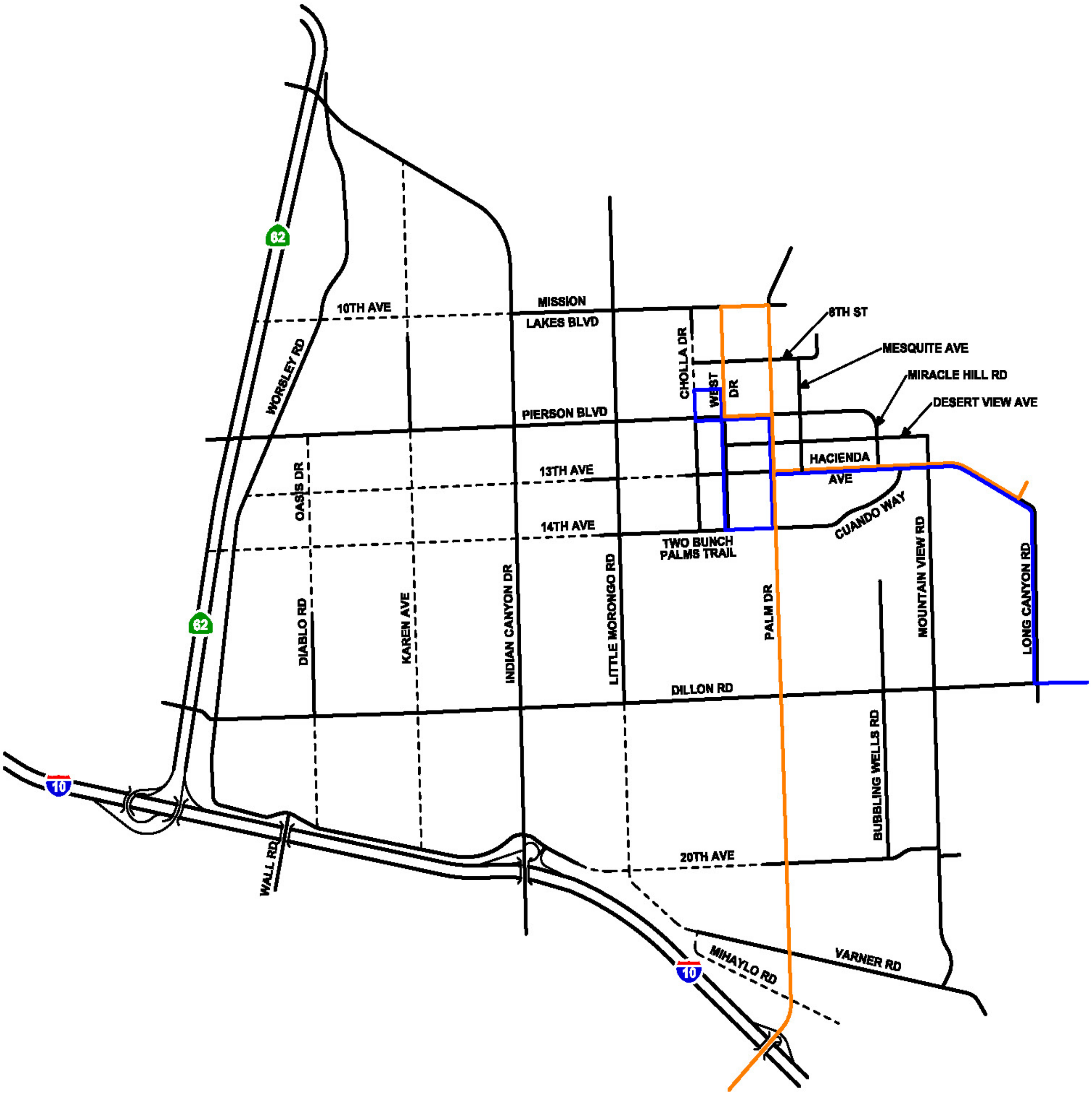
Table 4.17-3
Study Roadway Segments

#	Roadway Segment
1	Worsley Road between Indian Canyon Drive and Mission Lakes Boulevard
2	Worsley Road between Mission Lakes Boulevard and Pierson Boulevard
3	Worsley Road between Pierson Boulevard and Hacienda Boulevard
4	*Worsley Road between Hacienda Boulevard and Two Bunch Palms Trail [Future Segment]*
5	Worsley Road between Two Bunch Palms Trail and Dillon Road
6	Worsley Road between Dillon Road and 20th Avenue
7	*Oasis Drive between 13th Avenue and 14th Avenue [Future Segment]*
8	Diablo Road between 14th Avenue and Dillon Road
9	*Karen Avenue between Indian Canyon Drive and 10th Avenue [Future Segment]*
10	Karen Avenue between 10th Avenue and Pierson Boulevard
11	*Karen Avenue between Pierson Boulevard and 13th Avenue [Future Segment]*
12	*Karen Avenue between 13th Avenue and 14th Avenue [Future Segment]*
13	*Karen Avenue between 14th Avenue and Dillon Road [Future Segment]*
14	Indian Canyon Drive between SR-62 and Worsley Road
15	*Indian Canyon Drive between Worsley Road and Karen Avenue [Future Segment]*
16	Indian Canyon Drive between Karen Avenue and Mission Lakes Boulevard
17	Indian Canyon Drive between Mission Lakes Boulevard and Pierson Boulevard
18	Indian Canyon Drive between Pierson Boulevard and 13th Avenue
19	Indian Canyon Drive between 13th Avenue to 14th Avenue
20	Indian Canyon Drive between 14th Avenue and Dillon Road
21	Indian Canyon Drive between Dillon Road and 20th Avenue
22	Little Morongo Road north of Mission Lakes Boulevard
23	Little Morongo Road between Mission Lakes Boulevard and Pierson Boulevard
24	Little Morongo Road between Pierson Boulevard and Hacienda Avenue
25	Little Morongo Road between Hacienda Avenue and Two Bunch Palms Trail
26	Little Morongo Road between Two Bunch Palms Trail and Dillon Road
27	*Little Morongo Road between Dillon Road and 20th Avenue [Future Segment]*
28	West Drive between 8th Street and Pierson Boulevard
29	West Drive between Hacienda Avenue and Two Bunch Palms Trail
30	Palm Drive north of Mission Lakes Boulevard
31	Palm Drive between Mission Lakes Boulevard and Pierson Boulevard
32	Palm Drive between Pierson Boulevard and Hacienda Avenue
33	Palm Drive between Hacienda Avenue and Two Bunch Palms Trail
34	Palm Drive between Two Bunch Palms Trail and Dillon Road
35	Palm Drive between Dillon Road and 20th Avenue
36	Palm Drive between 20th Avenue and Varner Road
37	Palm Drive between Varner Road and I-10 Freeway
38	Bubbling Wells Road north of Dillon Road
39	Bubbling Wells Road between Dillon Road and 20th Avenue
40	Mountain View Road between Hacienda Avenue and Dillon Road
41	Mountain View Road between Dillon Road and 20th Avenue
42	Mountain View Road between 20th Avenue and Varner Road
43	Long Canyon Road north of Dillon Road
44	*10th Avenue between SR-62 and Worsley Road [Future Segment]*
45	*10th Avenue between Worsley Road and Karen Road [Future Segment]*
46	*10th Avenue between Karen Road and Indian Canyon Drive [Future Segment]*
47	Mission Lakes Boulevard between Indian Canyon Drive and Little Morongo Road
48	Mission Lakes Boulevard between Little Morongo Road and Cholla Drive
49	Mission Lakes Boulevard between Cholla Drive and Palm Drive

#	Roadway Segment
50	Pierson Boulevard between SR-62 and Worsley Road
51	*Pierson Boulevard between Worsley Road and Diablo Road [Future Segment]*
52	Pierson Boulevard between Diablo Road and Karen Avenue
53	Pierson Boulevard between Karen Avenue and Indian Canyon Drive
54	Pierson Boulevard between Indian Canyon Drive and Little Morongo Road
55	Pierson Boulevard between Little Morongo Road and Cholla Drive
56	Pierson Boulevard between Cholla Drive and Palm Drive
57	Pierson Boulevard east of Palm Drive
58	*13th Avenue between Diablo Road and Karen Avenue [Future Segment]*
59	*13th Avenue between Karen Avenue and Indian Canyon Drive [Future Segment]*
60	13th Avenue between Indian Canyon Drive and Little Morongo Road
61	*Hacienda Avenue between Little Morongo Road and Cholla Drive [Future Segment]*
62	Hacienda Avenue between Cholla Drive and Palm Drive
63	Hacienda Avenue between Palm Drive and Mountain View Road
64	Hacienda Avenue east of Mountain View Road
65	*14th Avenue between SR-62 and Worsley Road [Future Segment]*
66	*14th Avenue between Worsley Road and Diablo Road [Future Segment]*
67	*14th Avenue between Diablo Road and Karen Avenue [Future Segment]*
68	*14th Avenue between Karen Avenue and Indian Canyon Drive [Future Segment]*
69	*14th Avenue between Indian Canyon Drive and Little Morongo Road [Future Segment]*
70	Two Bunch Palms Trail between Little Morongo Road and Cholla Drive
71	Two Bunch Palms Trail between Cholla Drive and Palm Drive
72	Two Bunch Palms Trail east of Palm Drive
73	Dillon Road between SR-62 and Worsley Road
74	Dillon Road between Worsley Road and Diablo Road
75	Dillon Road between Diablo Road and Karen Avenue
76	Dillon Road between Karen Avenue and Indian Canyon Drive
77	Dillon Road between Indian Canyon Drive and Little Morongo Road
78	Dillon Road between Little Morongo Road and Palm Drive
79	Dillon Road between Palm Drive and Mountain View Road
80	Dillon Avenue between Mountain View Road and Long Canyon Road
81	Dillon Road east of Long Canyon Road
82	*20th Avenue between Worsley Road and Diablo Road [Future Segment]*
83	20th Avenue between Diablo Road and Karen Avenue
84	20th Avenue between Karen Avenue and Indian Canyon Drive
85	*20th Avenue between Indian Canyon Drive and Little Morongo Road [Future Segment]*
86	*20th Avenue between Little Morongo Road and Palm Drive [Future Segment]*
87	20th Avenue between Palm Drive and Mountain View Road
88	Varner Road between Mihaylo Road and Palm Drive
89	Varner Road between Palm Drive and Mountain View Road
90	Varner Road east of Mountain View Road

Transit Service
The City of Desert Hot Springs is currently served by the SunLine Transit Agency. Exhibit 4.17-3 shows Bus Line 14 and Line 15 which currently serve the City of Desert Hot Springs.

Bicycle Facilities
Exhibit 4.17-4 shows existing bicycle facilities as documented in the City of Desert Hot Springs Bicycle and Pedestrian Master Plan. Exhibit 4.17-5 shows the future bicycle network established in the City of Desert Hot Springs Bicycle and Pedestrian Master Plan.



Legend
- Line 14
- Line 15

Exhibit 4.17-3: Existing Transit Routes

Source: SunLine Transit Agency

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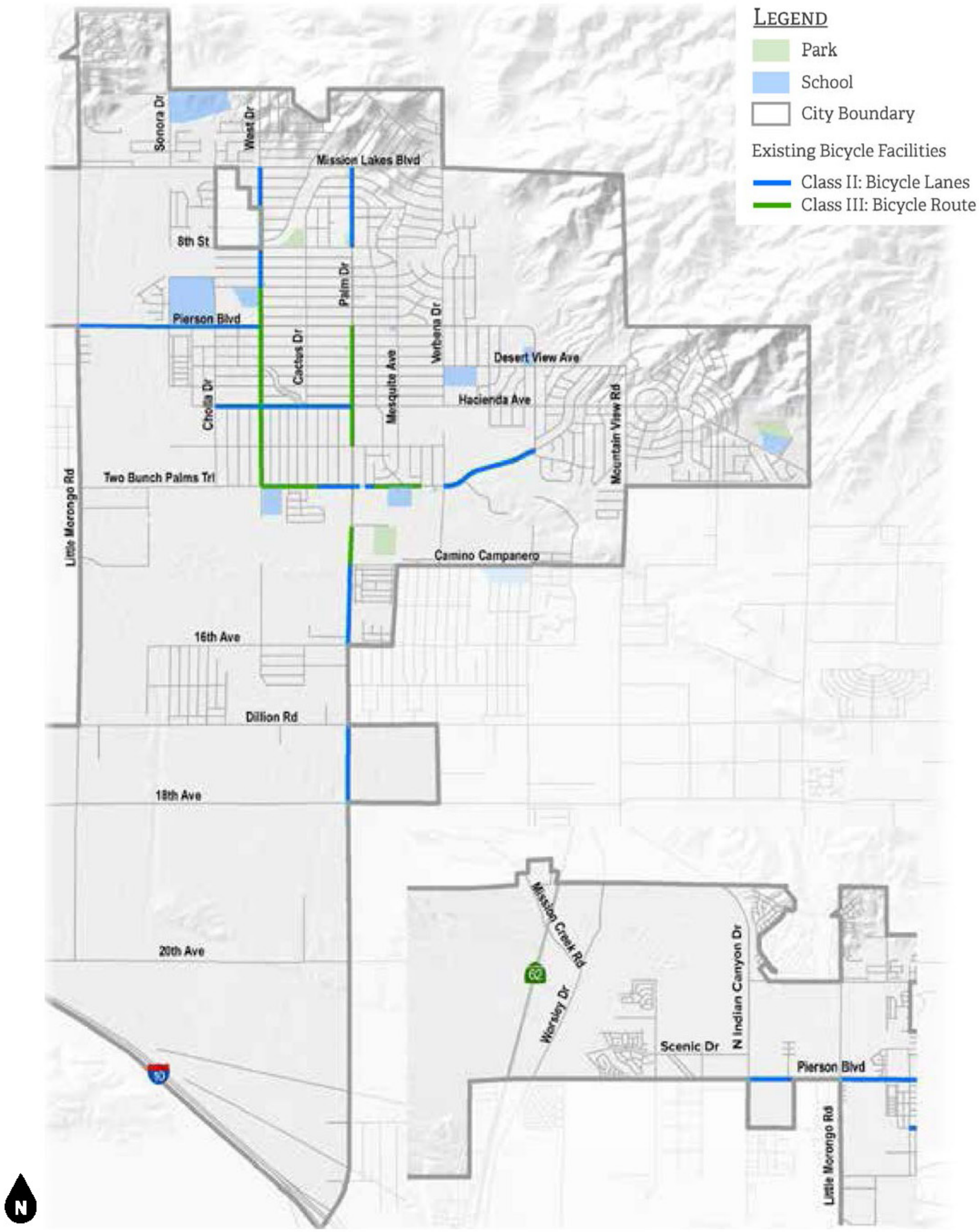

Source: City of Desert Hot Springs

Exhibit 4.17-4:
Existing Bicycle Facilities

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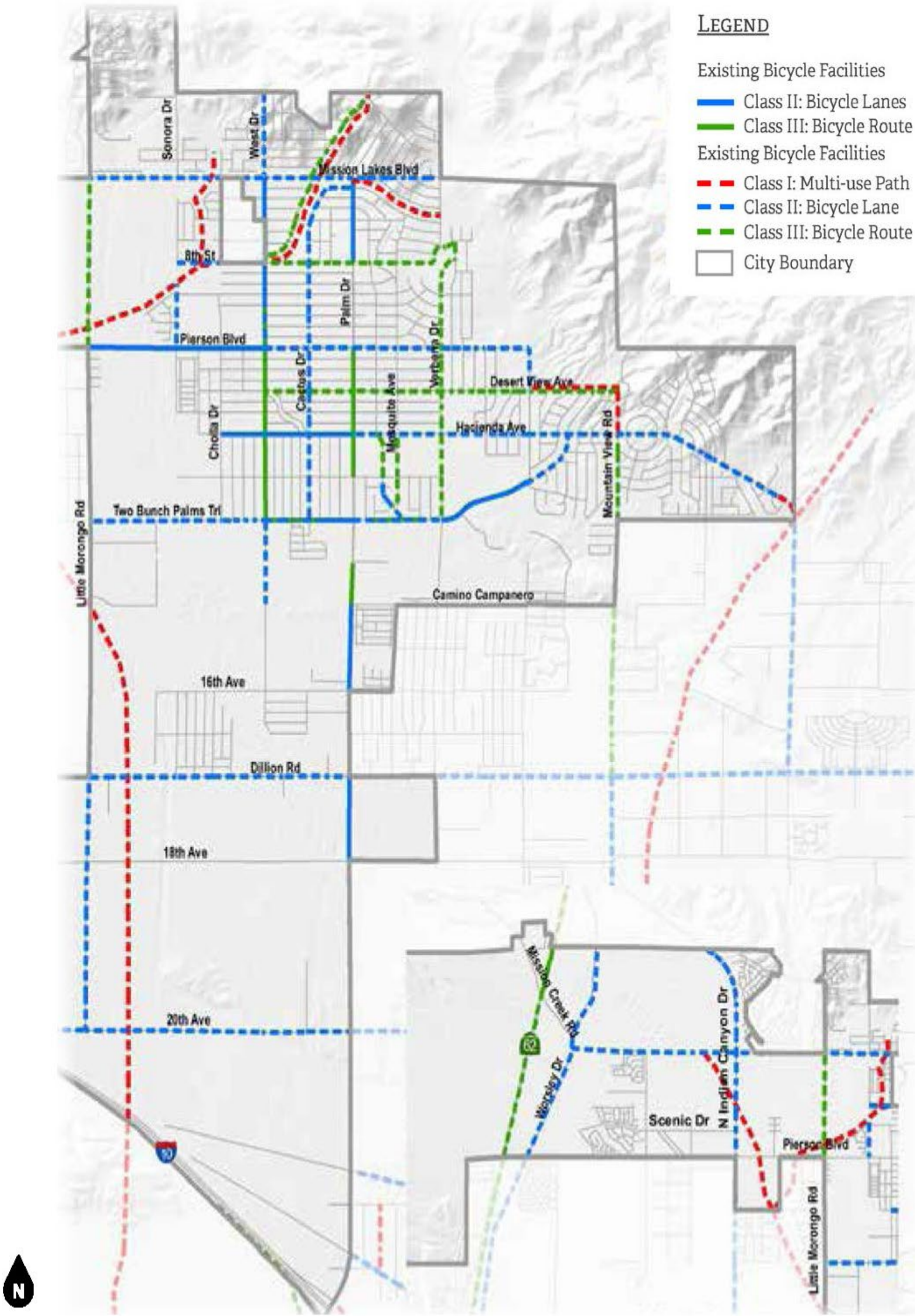

Exhibit 4.17-5: Current Bicycle Facilities Master Plan

Source: City of Desert Hot Springs

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Existing Traffic Conditions
Existing peak hour intersection volumes are based upon AM and PM peak period intersection turning movement counts obtained in April 2018 during typical weekday conditions and while local schools were in session. The AM peak period was counted between 7:00 AM and 9:00 AM and the PM peak period was counted between 4:00 PM and 6:00 PM. The actual peak hour within the peak period is the four consecutive 15 minute periods with the highest total volume when all movements are added together. Thus, the PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Appendix F.

Existing Intersection Level of Service. The study intersection Levels of Service (LOS) for Existing conditions are shown in Table 4.17-4. Existing intersection LOS calculation worksheets and exhibits showing AM and PM peak hour intersection turning movements volumes are provided in Appendix F.

The study intersections currently operate within acceptable LOS (D or better) during the peak hours for Existing conditions, except for the following intersections (see Table 14.7-4):

- 7. Indian Canyon Drive at Dillon Road (LOS E, AM/PM peak hours)
- 19. Palm Drive at 20th Avenue (LOS F, PM peak hour)
- 23. Mountain View Road at Varner Road (LOS F, AM peak hour)

Table 14.7-4
Existing Intersection Level of Service

Number	Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1	SR-62 at Indian Canyon Dr	TS	10.5	B	17.0	B
2A	SR-62 SB at Pierson Blvd	CSS	30.7	D	17.1	C
2B	SR-62 NB at Pierson Blvd	CSS	12.5	B	19.8	C
3	SR-62 at Dillon Rd	TS	9.1	A	8.4	A
4	Indian Canyon Dr at Mission Lakes Blvd	TS	16.6	B	11.1	B
5	Indian Canyon Dr at Pierson Blvd	AWS	15.0	B	15.9	C
6	Indian Canyon Dr at 14th Ave	CSS	15.6	C	17.5	C
7	Indian Canyon Dr at Dillon Rd	AWS	49.3	E	37.1	E
8	Indian Canyon Dr at 20th Ave	TS	15.7	B	16.5	B
9	Little Morongo Rd at Mission Lakes Blvd/16th St	AWS	10.1	B	9.5	A
10	Little Morongo Rd at Pierson Blvd	AWS	14.5	B	11.9	B
11	Little Morongo Rd at 14th Ave/Two Bunch Palms Trail	AWS	12.3	B	11.0	B
12	Little Morongo Rd at Dillon Rd	AWS	19.3	C	14.0	B
13	Little Morongo Rd at 20th Ave	*Future Intersection*				
14	Palm Dr at 16th St	AWS	12.6	B	9.8	A
15	Palm Dr at Pierson Blvd	TS	22.1	C	19.6	B
16	Palm Dr at Hacienda Ave	TS	18.6	B	21.0	C
17	Palm Dr at Two Bunch Palms Trail	TS	55.0	D	47.7	D
18	Palm Dr at Dillon Rd	TS	27.1	C	21.9	C
19	Palm Dr at 20th Ave	CSS	19.0	C	515.5	F
20	Palm Dr at Varner Rd	TS	7.9	A	6.8	A
21	Mountain View Rd at Hacienda Ave	TS	25.2	C	25.5	C

Number	Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
22	Mountain View Rd at Dillon Rd	TS	25.8	C	23.7	C
23	Mountain View Rd at Varner Rd	AWS	83.1	F	22.5	C
24	Long Canyon Rd at Dillon Rd	AWS	12.9	B	13.7	B

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
[2] Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).
[3] LOS = Level of Service

Existing Roadway Segments Level of Service. The study roadway segment capacity analysis and LOS for Existing conditions are shown in Table 4.17-5. The study roadway segments currently operate within acceptable Levels of Service (D or better), except for the following roadway segments:

- R34. Palm Drive between Two Bunch Palms Trail and Dillon Road
- R35. Palm Drive between Dillon Road and 20th Avenue
- R36. Palm Drive between 20th Avenue and Varner Road
- R70. Two Bunch Palms Trail between Little Morongo Road and Cholla Drive

Table 4.17-5
Existing Roadway Segment Level of Service

Roadway	Segment	Classification	Existing number of Lanes	LOS E Capacity	ADT	V/C	LOS
R1. Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Minor Collector	2	13,000	236	0.02	A
R2. Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Minor Collector	2	13,000	188	0.01	A
R3. Worsley Rd	Pierson Blvd and Hacienda Blvd	Minor Collector	2	13,000	223	0.02	A
R4. Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Minor Collector	2	13,000	223	0.02	A
R5. Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Minor Collector	2	13,000	291	0.02	A
R6. Worsley Rd	Dillon Rd and 20th Ave	Minor Collector	2	13,000	563	0.04	A
R8. Diablo Rd A	14th Ave and Dillon Rd	Local Collector	2	13,000	239	0.02	A
R10. Karen Ave	10th Ave and Pierson Blvd	Secondary	2	13,000	41	0.00	A
R14. Indian Canyon Dr	SR-62 and Worsley Rd	Minor Arterial	2	18,000	6,056	0.34	A
R15. Indian Canyon Dr	Worsley Rd and Karen Ave	Minor Arterial	2	18,000	5,190	0.29	A
R16. Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Minor Arterial	2	18,000	5,190	0.29	A
R17. Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Minor Arterial	2	18,000	6,765	0.38	A

Roadway	Segment	Classification	Existing number of Lanes	LOS E Capacity	ADT	V/C	LOS
R18. Indian Canyon Dr	Pierson Blvd and 13th Ave	Major Arterial	2	18,000	9,063	0.50	A
R19. Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	2	18,000	9,236	0.51	A
R20. Indian Canyon Dr	14th Ave and Dillon Rd	Major Arterial	2	18,000	8,862	0.49	A
R21. Indian Canyon Dr	Dillon Rd and 20th Ave	Urban Arterial	2	18,000	14,183	0.79	C
R22. Little Morongo Rd	north of Mission Lakes Blvd	Minor Collector	2	13,000	1,778	0.14	A
R23. Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Major Collector	2	18,000	4,010	0.22	A
R24. Little Morongo Rd	Pierson Blvd and Hacienda Ave A	Major Collector	2	18,000	4,088	0.23	A
R25. Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Major Collector	2	18,000	4,758	0.26	A
R26. Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Major Arterial	2	18,000	7,382	0.41	A
R28. West Dr	8th St and Pierson Blvd	Minor Collector	2	13,000	3,835	0.30	A
R29. West Dr	Hacienda Ave and Two Bunch Palms Trail	Minor Collector	2	13,000	5,053	0.39	A
R30. Palm Dr	north of Mission Lakes Blvd	Secondary	2	13,000	272	0.02	A
R31. Palm Dr	Mission Lakes Blvd and Pierson Blvd	Minor Collector	4	26,000	15,044	0.58	A
R32. Palm Dr	Pierson Blvd and Hacienda Ave	Major Collector	4	36,000	21,779	0.60	A
R33. Palm Dr	Hacienda Ave and Two Bunch Palms Trail	Major Collector	4	36,000	28,752	0.80	C
R34. Palm Dr	Two Bunch Palms Trail and Dillon Rd	Major Arterial	4	36,000	38,105	1.06	F
R35. Palm Dr	Dillon Rd and 20th Ave	Urban Arterial	4	36,000	35,024	0.97	E
R36. Palm Dr	20th Ave and Varner Rd	Urban Arterial	4	36,000	34,062	0.95	E
R37. Palm Dr	Varner Rd and I-10 Freeway	Urban Arterial	4	36,000	30,521	0.85	D
R38. Bubbling Wells Rd	north of Dillon Rd A	Minor Collector	2	13,000	3,149	0.24	A
R39. Bubbling Wells Rd	Dillon Rd and 20th Ave	Minor Collector	2	13,000	1,445	0.11	A
R40. Mountain View Rd	Hacienda Ave and Dillon Rd	Minor Arterial	2	18,000	6,925	0.38	A
R41. Mountain View Rd	Dillon Rd and 20th Ave	Minor Arterial	2	18,000	10,133	0.56	A
R42. Mountain View Rd	20th Ave and Varner Rd	Minor Arterial	2	18,000	11,137	0.62	B
R43. Long Canyon Rd	north of Dillon Rd	Minor Collector	2	13,000	3,067	0.24	A
R47. Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd A	Minor Collector	2	13,000	3,985	0.31	A
R48. Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Minor Collector	2	13,000	4,467	0.34	A

Roadway	Segment	Classification	Existing number of Lanes	LOS E Capacity	ADT	V/C	LOS
R49. Mission Lakes Blvd	Cholla Dr and Palm Dr	Minor Collector	2	13,000	3,641	0.28	A
R50. Pierson Blvd	SR-62 and Worsley Rd	Major Arterial	2	18,000	2,286	0.13	A
R51. Pierson Blvd	Worsley Rd and Diablo Rd	Major Arterial	2	18,000	3,054	0.17	A
R52. Pierson Blvd	Diablo Rd and Karen Ave	Major Arterial	2	18,000	3,054	0.17	A
R53. Pierson Blvd	Karen Ave and Indian Canyon Dr	Major Arterial	2	18,000	2,384	0.13	A
R54. Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	5,196	0.29	A
R55. Pierson Blvd	Little Morongo Rd and Cholla Dr	Minor Arterial	4	36,000	8,482	0.24	A
R56. Pierson Blvd	Cholla Dr and Palm Dr	Minor Arterial	4	36,000	7,566	0.21	A
R57. Pierson Blvd	east of Palm Dr	Secondary	4	26,000	5,906	0.23	A
R62. Hacienda Ave	Cholla Dr and Palm Dr	Minor Collector	2	13,000	6,167	0.47	A
R63. Hacienda Ave	Palm Dr and Mountain View Rd	Minor Collector	2	13,000	9,382	0.72	C
R64. Hacienda Ave	east of Mountain View Rd	Minor Collector	2	13,000	6,741	0.52	A
R70. Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Secondary	2	13,000	12,141	0.93	E
R71. Two Bunch Palms Trail	Cholla Dr and Palm Dr	Secondary	4	26,000	12,129	0.47	A
R72. Two Bunch Palms Trail	east of Palm Dr	Secondary	2	13,000	9,449	0.73	C
R73. Dillon Rd	SR-62 and Worsley Rd	Major Arterial	2	18,000	2,832	0.16	A
R74. Dillon Rd	Worsley Rd and Diablo Rd	Major Arterial	2	18,000	2,650	0.15	A
R75. Dillon Rd	Diablo Rd and Karen Ave	Major Arterial	2	18,000	2,842	0.16	A
R76. Dillon Rd	Karen Ave and Indian Canyon Dr	Major Arterial	2	18,000	2,557	0.14	A
R77. Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	9,779	0.54	A
R78. Dillon Rd	Little Morongo Rd and Palm Dr	Minor Arterial	2	18,000	10,081	0.56	A
R79. Dillon Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	18,000	10,539	0.59	A
R80. Dillon Rd	Mountain View Rd and Long Canyon Rd	Major Arterial	2	18,000	10,866	0.60	A
R81. Dillon Rd	east of Long Canyon Rd	Major Arterial	2	18,000	12,544	0.70	B
R82. 20th Ave	Worsley Rd and Diablo Rd	Minor Collector	2	13,000	1,489	0.11	A
R83. 20th Ave	Diablo Rd and Karen Ave	Minor Collector	2	13,000	1,489	0.11	A
R84. 20th Ave	Karen Ave and Indian Canyon Dr	Minor Collector	2	13,000	530	0.04	A

Roadway	Segment	Classification	Existing number of Lanes	LOS E Capacity	ADT	V/C	LOS
R85. 20th Ave	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	1,214	0.07	A
R87. 20th Ave	Palm Dr and Mountain View Rd A	Minor Arterial	2	18,000	1,214	0.07	A
R88. Varner Rd	Mihaylo Rd and Palm Dr	Minor Arterial	2	18,000	8	0.00	A
R89. Varner Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	18,000	1,964	0.11	A
R90. Varner Rd	east of Mountain View	Minor Arterial	2	18,000	12,050	0.67	B
Notes: (1) LOS = Level of Service; ADT = Average Daily Traffic; V/C = Volume/Capacity							

4.17.2 Regulatory Framework

Federal

No federal agencies or regulations directly apply to the Project transportation impacts.

State

State of California Department of Transportation (Caltrans). The State of California Department of Transportation (Caltrans) implements State planning priorities in all plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact State highway facilities. Pursuant to Public Resources Code § 21092.4, for projects of statewide, regional, or area-wide significance, the lead agency must consult with transportation planning agencies and public agencies that have transportation facilities which could be affected by a project.

Regional And Local

Southern California Association of Governments (SCAG).
The Southern California Association of Governments (SCAG) leads the development of the Regional Transportation Plan (RTP), which presents the vision for transportation throughout most of Southern California, including Riverside County. Senate Bill 375 (SB 375) was passed to reduce greenhouse gas emissions from both automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under SB 375, SCAG is tasked with developing a Sustainable Communities Strategy (SCS). The SCS, as a component of the RTP, provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board. The 2016 RTP/SCS identifies priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the region. The Regional Transportation Improvement Plan (RTIP), also prepared by SCAG based on the RTP, lists all of the regional, funded/programmed improvements within the next seven years. In order to qualify for CEQA streamlining benefits under SB 375, a project must be consistent with the RTP/SCS.

County of Riverside Congestion Management Program.
Every county in California is required to develop a Congestion Management Program (CMP) that looks at the links between land use, transportation and air quality. In its role as Riverside County's

Congestion Management Agency, RCTC prepares and periodically updates the county's CMP to meet federal Congestion Management Process guidelines. RCTC's current CMP was adopted in December 2011, the CMP is currently under review and is planned to be incorporated in the Commission's Long Range Transportation Plan (LRTP), which is anticipated to be completed in 2019 or early 2020.

City of Desert Hot Springs Bicycle & Pedestrian Master Plan.
The Bicycle and Pedestrian Master Plan was developed to provide the City of Desert Hot Springs a guide to improve bicycling and walking activity throughout the City. This year-long project included two workshops to gather residents' feedback on issues and improvements they would like to see now and in the future. A series of priority complete street projects were developed through the outreach process as well as the development of a connected bicycle network.

2000 City of Desert Hot Springs Comprehensive General Plan – Circulation Element.
The Circulation Element of the 2000 Comprehensive General Plan analyses future traffic impacts to the City due to growth in the City and region. The purpose of the Circulation Element is to develop an efficient, cost-effective and comprehensive transportation management strategy consistent with regional plans, local needs to maintain and improve mobility, and in a manner consistent with the goals and character of the community. Transportation related goals and policies included in the 2000 Comprehensive General Plan are listed below:

- GOAL: A circulation network that efficiently, safely and economically moves people, vehicles, and goods using transportation facilities that meet the current demands and projected needs of the City, while maintaining and protecting its residential and spa resort character.
    - Policy 1: Establish and maintain a master plan of roads, which sets forth detailed improvement plans and priority schedules for implementation, to assure minimal levels of mid-block roadway and intersection operations at LOS C and LOS D, respectively.
    - Policy 2: Coordinate and cooperate with CalTrans, CVAG and Riverside County to assure preservation of capacity and maximized efficiency along Palm Drive, Highway 62 and other major roadways.
    - Policy 3: Participate and represent the City's interests in circulation-related regional planning activities, and encourage acceptance of City policies regarding regional transportation issues.
    - Policy 4: Encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency within the City.
    - Policy 5: As a means of reducing traffic associated with work-related out-migration, make every reasonable effort to enhance the City's jobs/housing balance.
    - Policy 6: Promote the use of multi-occupant modes of transportation, and the shifting of employment related trips out of current peak traffic periods.
    - Policy 7: Develop and encourage the use of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.
    - Policy 8: Coordinate with the Riverside County Flood Control District and its consultants to assure the provision of all-weather crossings along critical roadways.
    - Policy 9: Facilitate the design and installation of a community locational/directional signage program to efficiently direct traffic to high use public buildings, parks, and

other facilities.

- Policy 10: Coordinate and cooperate with the Palm Springs Regional Airport Authority to assure that the airport continues to meet the City's transportation, commercial and emergency response needs.
- Policy 11: Streets within planned residential areas shall be installed and maintained as private streets, and shall be developed in accordance with development standards set forth in the Zoning Ordinance and other applicable standards and guidelines
- Policy 12: City truck routes shall be designated and limited to Palm Drive, Two Bunch Palms Trail, Indian Avenue, Little Morongo Road, Pierson Boulevard and Highway 62.

City of Desert Hot Springs Development Impact Fees.
The City of Desert Hot Springs currently collects development impact fees associated with new development. Fees are specifically collected for the city's circulation system, including streets, traffic signals, and bridges. Fees are calulated based on dwelling unit type and number of units for residential development, or by a fee per square foot for commercial, office, industrial, or manufacturing uses.

Desert Hot Springs General Plan Update
The Mobility and Infrastructure Element of the General Plan Update plans for safe, complete, and functional street systems and includes policies addressing roadway safety, pedestrian connections, bike and nature trails, and transit access—all designed to provide for the movement of people and goods throughout Desert Hot Springs and to destinations outside the City. Transportation related policies identified in this Element are listed below:

- Policy MI-1.1: Transportation Network Improvements
- Policy MI-1.2: Community Engagement
- Policy MI-1.3: Multi-Modal
- Policy MI-1.4: Resilient Mobility Network
- Policy MI-1.5: Roadways in Planning Communities
- Policy MI-1.6: Street Classification
- Policy MI-2.1: Complete Streets
- Policy MI-2.2: Balanced Transportation System
- Policy MI-2.3: Context Sensitive Improvements
- Policy MI-2.4: Accessibility
- Policy MI-2.5: Retrofit Streets
- Policy MI-2.6: Rights-of-Ways
- Policy MI-3.1: Safety Prioritization
- Policy MI-3.2: Street Maintenance
- Policy MI-3.3: Adaptive Street Strategies
- Policy MI-3.4: Test Street Improvement
- Policy MI-3.5: Neighborhood Traffic Control
- Policy MI-3.6: Traffic Calming
- Policy MI-3.7: Pedestrian Street Design
- Policy MI-3.8: Safe Routes to School
- Policy MI-3.9: Safety Enhancement Zones
- Policy MI-3.10: Safety Education
- Policy MI-3.11: Public Engagement
- Policy MI-3.12: Transportation Data
- Policy MI-4.1: Prioritize Walking
- Policy MI-4.2: Active Transportation Facilities
- Policy MI-4.3: Connectivity
- Policy MI-4.4: Pedestrian Connections through Parking Lots

- Policy MI-5.1: Reduce Vehicle Miles Traveled
- Policy MI-5.2: Sustainable Transportation and Land Use Strategies
- Policy MI-5.3: Clean Vehicles
- Policy MI-5.4: Traffic Mitigation
- Policy MI-5.5: Green Streets
- Policy MI-5.6: Repaving and Repairing
- Policy MI-7.1: Bus Service
- Policy MI-7.2: Transit Expansion
- Policy MI-7.3: Transit Facilities
- Policy MI-7.4: Paratransit
- Policy MI-8.1: Truck Routes
- Policy MI-8.2: Delivery
- Policy MI-8.3: Evolving Delivery Approaches
- Policy MI-8.4: Accommodating Trucks
- Policy MI-9.1: Intelligent transportation Systems
- Policy MI-9.2: Autonomous Vehicles
- Policy MI-9.3: Funding Sources
- Policy MI-9.4: Special Assessments
- Policy MI-9.5: Mobile Technology
- Policy MI-10.1: Funding Transportation Network
- Policy MI-10.2: Expand Funding
- Policy MI-10.3: Impact Fees
- Policy MI-10.4: Mitigation Fees
- Policy MI-10.5: Capital Improvement Planning
- Policy MI-10.6: Regional Participation

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

The GPU includes a reclassification of roadways in Desert Hot Springs based on their primary function. New roadway classifications are shown in Exhibit 4.17-6 and are described below, and Table 4.17-6 shows how new roadway classifications relate to the prior roadway classifications:

- *Urban Arterials.* Urban Arterials provide up to eight travel lanes (four in each direction) and have a raised median. The primary function of an Urban Arterial is to provide connectivity to major freeways.
- *Primary Streets.* Primary streets (Primary I and Primary II) provide up to six travel lanes (three in each direction) for Primary I and four travel lanes (two in each direction) for Primary II; each includes a raised median. Primary streets include Pierson Boulevard and Indian Avenue.
- *Secondary Streets.* Secondary streets provide connections between arterial streets and provide up to four lanes of travel (two in each direction, divided or undivided) directly to neighborhoods citywide. Secondary I streets are divided by medians, and Secondary II are undivided. Secondary streets include Indian Canyon Avenue, Little Morongo Road, Mountain View Road, Two Bunch Palms Trails, Dillon Road, and portions of Pierson Boulevard.
- *Collector Streets.* Collector streets provide connections to higher classification roadways. The roadway geometrics of Collector streets vary depending upon the connective functions they provide. They have four travel lanes without a center raised median. Collector streets include Mission Lakes Boulevard, Worsley Road, Karen Avenue, Hacienda Avenue, and 20th Avenue.
- *Local Collectors.* Local Collectors functions like Collector Streets, but with fewer vehicle trips. They have two travel lanes, without a center raised median. Local Collector streets include

Cholla Drive, West Drive, Bubbling Wells Road, and the portion of Palm Drive north of Mission Lakes Boulevard.

- *Local Streets.* Local Streets provide local traffic circulation with direct access to adjoining properties. Through traffic is deliberately discouraged.

Table 4.17-6
Current and Proposed General Plan Roadway Classifications and Daily Capacity Estimates

Current				Proposed				
					ROW			
Classification	ROW	Number of Lanes	LOS Capacity	Classification	Without Bike Lane	With Bike Lane	Number of Lanes	LOS Capacity
Urban Arterial	134 ft	8D	72,000	Urban Arterial	n/a	142 ft	8D	72,000
Major Arterial	110 ft	6D	54,000	Primary I	110 ft	118 ft	6D	54,000
Minor Arterial	110 ft	4D	36,000	Primary II	n/a	110 ft	4D	36,000
Major Collector	100	4D	36,000	Secondary I	n/a	100 ft	4D	36,000
Minor Collector	88 ft	4U	26,000	Secondary II	80-88 ft	90 ft.	4U	26,000
Secondary	80 ft	4U	26,000	Collector	72 ft	82 ft	2D	18,000
Local Collector	60 ft	2U	13,000	Local Collector	60 ft	70 ft	2U	13,000

Notes:
ROW = Right-of-Way (in feet)
LOS = Level of Service

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Source: City of Desert Hot Springs

Legend

City Boundary
City Sphere of Influence
Urban Arterial
Primary I
Primary II
Secondary I
Secondary II
Collector
Local Collector

Exhibit 4.17-6:
General Plan Update
Roadway Classification Map

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4.17.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix F of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
B. Conflict or be inconsistent with CEQA Guidelines section 15064.3[1] subdivision (b)?
C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
D. Result in inadequate emergency access?
E. Would the project cause substantial adverse cumulative impacts with respect to transportation and traffic?

4.17.4 Environmental Impacts

The TIA was prepared in accordance with the guidance and parameters established in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide (April 2008) ["Riverside County Guidelines"].

Analysis Methodology

Intersection Delay Methodology
To assess the performance of an intersection, the City of Desert Hot Springs uses the intersection delay method based on procedures contained in the Highway Capacity Manual (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding LOS. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to LOS as shown in Table 4.17-7 below.

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[1] CEQA Guidelines section 15064.3(c) provides that a lead agency "may elect to be governed by the provisions" of the section immediately; otherwise, the section's provisions apply July 1, 2020. Here, the City has not elected to be governed by Section 15064.3. Accordingly, an analysis of vehicles miles traveled (VMT) is not necessary to determine whether the GPU would have a significant transportation impact.

Table 4.17-7
Intersection Control Delay and Level of Service Criteria

LOS	Intersection Control Delay (Seconds/Vehicle) Signalized Intersection	Intersection Control Delay (Seconds/Vehicle) Unsignalized Intersection	Description
A	≤ 10.0	≤ 10.0	EXCELLENT OPERATION. All approaches to the intersection appear quite open, turning movements are easily made and nearly all drivers find freedom of operation.
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0	VERY GOOD OPERATION: Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0	GOOD OPERATION. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0	FAIR OPERATION. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0	POOR OPERATION. Some long-standing vehicular queues develop on critical approaches.
F	> 80.0	> 50.0	FORCED FLOW. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.
Source: Transportation Research Board, Highway Capacity Manual (6th Edition).			

LOS is used to qualitatively describe the performance of a roadway facility, ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, LOS is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), LOS is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

Intersection delay analysis was performed using the Vistro (Version 6.00-00) software. The LOS analysis has been performed in accordance with the input parameters identified in Exhibit C of the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide (Riverside County Guidelines). Default values recommended in the Highway Capacity Manual were used for any values not specifically identified in the Riverside County Guidelines.

Roadway Segment Volume-to-Capacity Methodology

Roadway segment performance is based on the volume-to-capacity ratio, which is calculated by dividing the volume of traffic using the roadway by the theoretical roadway capacity. The volume-to-capacity ratio is then correlated to LOS based on the same thresholds as Intersection Capacity Utilization shown above.

Table 4.17-1, above, shows the theoretical daily traffic volume capacity for roadway segment planning purposes. Actual daily roadway capacity is a function of many factors, including, but not limited to, roadway alignment, intersection and driveway spacing, signal timing, lane widths, and duration of peak periods. Roadway segment volume-to-capacity ratios, based on daily traffic volumes, are used for planning level analysis to identify locations with potential peak hour deficiencies. Ultimately, actual roadway capacity is generally determined by peak hour intersection operations since intersections are typically the most constraining portions of a roadway.

Traffic Analysis Scenarios
The TIA analyzes future traffic conditions associated with Year 2040 Update of the proposed City of Desert Hot Springs General Plan Land Use Element. The following scenarios are analyzed during typical weekday AM and PM peak hour conditions:

- Existing Conditions
- 2040 Baseline Conditions (2040 Conditions without the General Plan Update)
- Proposed General Plan Update (Year 2040)

Level of Service Standard
The current City of Desert Hot Springs General Plan Circulation Element identifies LOS D as generally acceptable during the peak operating periods. Consistent with previous General Plan updates, LOS D shall be maintained as the minimum acceptable LOS for the circulation network.

The Riverside County Congestion Management Program (CMP) states that the Riverside CountyTransportation Commission has adopted a minimum LOS threshold of LOS E.

Riverside Transportation Analysis Model
To derive 2040 Baseline and the proposed General Plan Update traffic volumes, the Riverside Transportation Analysis Model (RivTAM) was used. To provide a general point of reference, the current RivTAM data was used for the 2040 Baseline Conditions analysis. The Traffic Analysis Zones (TAZs) and baseline roadway network were refined for the proposed General Plan land use plan. The socio-economic data for the proposed General Plan were disaggregated by TAZ and input into RivTAM along with the refined roadway network and attributes. Model runs were performed by AFSHA Consulting in accordance with County of Riverside transportation modelling procedures.

Socio-Economic & Roadway Attributes
The socio-economic and roadway network utilized for the proposed General Plan model runs are provided in Appendix F.

Post-Processing Procedures
In accordance with standard post-processing procedures, the long-range traffic volume forecasts have been determined using a growth increment approach on the Year 2008 and Year 2040 roadway link volumes. This approach calculates the incremental traffic growth between RivTAM Year 2008 and Year 2040 projections. This difference defines the growth in traffic volumes over the 32 year period. The incremental traffic growth was factored to reflect the forecast growth between existing traffic volumes (Year 2019) and Year 2040. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2040 condition was assumed. Since the increment between existing Year 2019 and Year 2040 is 21 years of the 32 year time frame, a factor of 0.65 (i.e., 21/32) was used.

To derive AM and PM peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure traffic growth. The end results of the post-processing procedures are future traffic volumes suitable for analysis. Post-processing worksheets and figures illustrating the final analysis volumes are contained in the Traffic Impact Analysis in Appendix F.

A. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

2040 Baseline Conditions (2040 Conditions without the General Plan Update)
This section presents the traffic volume forecasts and operational analysis for the study roadway segments and intersections projected for year 2040 without the General Plan Update (2040 Baseline Conditions). The Riverside Transportation Analysis Model (RivTAM) was used to derive the 2040 projections, which is based on inputs from the existing General Plan.The 2040 Baseline Conditions analysis assumes the roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications used for prior General Plan updates.

Intersection Level. The study intersection LOS for 2040 Baseline Conditions without improvements are shown in Table 4.17-8; as shown, 17 out of the 24 study intersections are forecast to operate at unacceptable LOS (E or F) for the 2040 Baseline Conditions without improvements. As described in the TIA, under the current General Plan, lane configurations are recommended which would maintain the minimum acceptable LOS (D or better) for the 2040 Baseline Conditions. These recommended lane configurations and improvements are detailed within the TIA, included in Appendix F. As shown in Table 4.17-8, all intersections would operate at acceptable LOS with implementation of the lane configurations and improvements.

While Table 4.17-8 shows that all intersections would operate at acceptable LOS for the 2040 Baseline Conditions, it is possible that not all improvements may be feasible. As further described in Appendix F. Intersection #1, #2 and #3 are within Caltrans jurisdiction; as such, the City of Desert Hot Springs cannot guarantee any improvements would be constructed outside its jurisdiction. Additionally, intersections #20 and #23 are also partially, or entirely, within the City of Cathedral City jurisdiction, and the City of Desert Hot Springs cannot guarantee intersection improvements would be constructed. As such, and these intersections may operate at an unacceptable LOS (E or F).

Intersections #7 and #18 have existing development which may prevent implementation of the identified improvements; as such, these intersection may continue to operate at an unacceptable LOS in the 2040 Baseline Conditions.

Roadway Segment LOS. The study roadway segment capacity analysis and LOS for 2040 Baseline Conditions are shown in Table 4.17-9; as shown, the study roadway segments forecast to operate within acceptable Levels of Service (D or better) assuming roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications. However, as further described in Appendix F, while the analysis shows that all roadway segments would operate at an acceptable LOS assuming expansion based on the roadway classification, given the uncertainty of timing regarding future roadway improvements, it is possible that some segments would experience unacceptable LOS prior to installation of the roadway expansion improvement. Additionally, there is also a possibility that not all identified roadway improvements would be ultimately constructed due to site specific physical constraints. Given the uncertainty of timing of installation of roadway improvements, and because there may be physical constraints to expanding roadways as certain locations within the Planning Area, some roadway segments may operate at an unacceptable LOS in the 2040 Baseline Conditions.

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Table 4.17-8
2040 Baseline Conditions LOS - With and Without Improvements

Intersection	AM Peak Hour				PM Peak Hour			
	Without Improvements		With Improvements		Without Improvements		With Improvements	
	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. SR-62 at Indian Canyon Dr	22.3	C	13.0	B	224.0	F	37.0	D
2. SR-62 at Pierson Blvd	10,000.0	F	20.3	C	10,000.0	F	27.6	C
3. SR-62 at Dillon Rd	83.8	F	34.8	C	83.6	F	48.0	D
4. Indian Canyon Dr at Mission Lakes Blvd	18.3	B	18.3	B	20.9	C	20.9	C
5. Indian Canyon Dr at Pierson Blvd	139.7	F	17.6	B	247.7	F	32.9	C
6. Indian Canyon Dr at Two Bunch Palms Trail	48.4	E	4.7	A	104.1	F	5.8	A
7. Indian Canyon Dr at Dillon Rd	486.4	F	44.4	D	518.9	F	28.6	C
8. Indian Canyon Dr at 20th Ave	30.4	C	30.2	C	65.8	E	54.6	D
9. Little Morongo Rd at Mission Lakes Blvd	15.2	C	15.2	C	27.6	D	27.6	D
10. Little Morongo Rd at Pierson Blvd	149.7	F	25.4	C	279.3	F	31.2	C
11. Little Morongo Rd at Two Bunch Palms Trail	198.1	F	31.6	C	392.0	F	53.1	D
12. Little Morongo Rd at Dillon Rd	345.4	F	21.6	C	318.9	F	36.8	D
13. Little Morongo Rd at 20th Ave	16.8	C	16.7	C	44.0	E	19.6	C
14. Palm Dr at Mission Lakes Boulevard	18.8	C	18.8	C	32.3	D	32.3	D
15. Palm Dr at Pierson Blvd	24.5	C	24.5	C	22.8	C	22.8	C
16. Palm Dr at Hacienda Ave	21.9	C	21.9	C	28.9	C	28.9	C
17. Palm Dr at Two Bunch Palms Trail	45.3	D	45.3	D	38.3	D	38.3	D
18. Palm Dr at Dillon Rd	66.7	E	43.8	D	41.6	D	40.6	D
19. Palm Dr at 20th Ave	10,000.0	F	43.4	D	10,000.0	F	18.4	B
20. Palm Dr at Varner Rd	26.0	C	26.5	C	66.9	E	49.4	D
21. Mountain View Rd at Hacienda Ave	28.5	C	28.5	C	50.7	D	50.7	D
22. Mountain View Rd at Dillon Rd	87.0	F	35.9	D	72.7	E	32.4	C
23. Mountain View Rd at Varner Rd	568.7	F	52.4	D	588.3	F	54.9	D
24. Long Canyon Rd at Dillon Rd	20.2	C	25.1	D	61.3	F	28.6	D

Notes:
[1]TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
[2]Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
[3]LOS = Level of Service

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Table 4.17-9
2040 Baseline Conditions Roadway LOS

Roadway	Segment	Classification	Lanes[1] Existing	Lanes[1] Buildout	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R1. Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Minor Collector	2	4U	26,000	300	0.01	A
R2. Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Minor Collector	2	4U	26,000	8,900	0.34	A
R3. Worsley Rd	Pierson Blvd and Hacienda Blvd	Minor Collector	2	4U	26,000	3,000	0.12	A
R4. Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Minor Collector	2	4U	26,000	3,000	0.12	A
R5. Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Minor Collector	2	4U	26,000	15,600	0.60	A
R6. Worsley Rd	Dillon Rd and 20th Ave	Minor Collector	2	4U	26,000	7,500	0.29	A
R7. Oasis Dr	13th Ave and 14th Ave	Secondary	n/a	4U	26,000	2,600	0.10	A
R8. Diablo Rd	14th Ave and Dillon Rd	Local Collector	2	2U	13,000	7,900	0.61	B
R14. Indian Canyon Dr	SR-62 and Worsley Rd	Minor Arterial	2	4D	36,000	15,700	0.44	A
R15. Indian Canyon Dr	Worsley Rd and Karen Ave	Minor Arterial	2	4D	36,000	14,700	0.41	A
R16. Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Minor Arterial	2	4D	36,000	14,800	0.41	A
R17. Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Minor Arterial	2	4D	36,000	15,400	0.43	A
R18. Indian Canyon Dr	Pierson Blvd and 13th Ave	Major Arterial	2	6D	54,000	21,000	0.39	A
R19. Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	2	6D	54,000	21,700	0.40	A
R20. Indian Canyon Dr	14th Ave and Dillon Rd	Major Arterial	2	6D	54,000	28,100	0.52	A
R21. Indian Canyon Dr	Dillon Rd and 20th Ave	Urban Arterial	2	8D	72,000	36,800	0.51	A
R22. Little Morongo Rd	north of Mission Lakes Blvd	Minor Collector	2	4U	26,000	2,000	0.08	A
R23. Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Major Collector	2	4D	36,000	12,100	0.34	A
R24. Little Morongo Rd	Pierson Blvd and Hacienda Ave	Major Collector	2	4D	36,000	13,800	0.38	A
R25. Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Major Collector	2	4D	36,000	14,800	0.41	A
R26. Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Major Arterial	2	6D	54,000	19,300	0.36	A
R27. Little Morongo Rd	Dillon Rd and 20th Ave	Major Arterial	n/a	6D	54,000	12,400	0.23	A
R28. West Dr	8th St and Pierson Blvd	Minor Collector	2	4U	26,000	4,900	0.19	A

Roadway	Segment	Classification	Lanes[1] Existing	Lanes[1] Buildout	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R29. West Dr	Hacienda Ave and Two Bunch Palms Trail	Minor Collector	2	4U	26,000	5,600	0.22	A
R30. Palm Dr	north of Mission Lakes Blvd	Secondary	2	4U	26,000	300	0.01	A
R31. Palm Dr	Mission Lakes Blvd and Pierson Blvd	Minor Collector	4	4U	26,000	22,000	0.85	D
R32. Palm Dr	Pierson Blvd and Hacienda Ave	Major Collector	4	4D	36,000	24,000	0.67	B
R33. Palm Dr	Hacienda Ave and Two Bunch Palms Trail	Major Collector	4	4D	36,000	32,400	0.90	D
R34. Palm Dr	Two Bunch Palms Trail and Dillon Rd	Major Arterial	4	6D	54,000	44,900	0.83	D
R35. Palm Dr	Dillon Rd and 20th Ave	Urban Arterial	4	8D	72,000	43,000	0.60	A
R36. Palm Dr	20th Ave and Varner Rd	Urban Arterial	4	8D	72,000	49,000	0.68	B
R37. Palm Dr	Varner Rd and I-10 Freeway	Urban Arterial	4	8D	72,000	43,700	0.61	B
R38. Bubbling Wells Rd	north of Dillon Rd A	Minor Collector	2	4U	26,000	3,500	0.13	A
R39. Bubbling Wells Rd	Dillon Rd and 20th Ave	Minor Collector	2	4U	26,000	4,800	0.18	A
R40. Mountain View Rd	Hacienda Ave and Dillon Rd	Minor Arterial	2	4D	36,000	13,500	0.38	A
R41. Mountain View Rd	Dillon Rd and 20th Ave	Minor Arterial	2	4D	36,000	24,500	0.68	B
R42. Mountain View Rd	20th Ave and Varner Rd	Minor Arterial	2	4D	36,000	27,700	0.77	C
R43. Long Canyon Rd	north of Dillon Rd	Minor Collector	2	4U	26,000	4,300	0.17	A
R44. Mission Lakes Blvd	SR-62 and Worsley Rd	Major Collector	n/a	4D	36,000	700	0.02	A
R45. Mission Lakes Blvd	Worsley Rd and Karen Rd	Minor Collector	n/a	4U	26,000	7,900	0.30	A
R46. Mission Lakes Blvd	Karen Rd and Indian Canyon Rd	Minor Collector	n/a	4U	26,000	11,400	0.44	A
R47. Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd A	Minor Collector	2	4U	26,000	10,500	0.40	A
R48. Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Minor Collector	2	4U	26,000	7,600	0.29	A
R49. Mission Lakes Blvd	Cholla Dr and Palm Dr	Minor Collector	2	4U	26,000	4,000	0.15	A
R50. Pierson Blvd	SR-62 and Worsley Rd	Major Arterial	2	6D	54,000	13,900	0.26	A
R51. Pierson Blvd	Worsley Rd and Diablo Rd	Major Arterial	2	6D	54,000	12,600	0.23	A
R52. Pierson Blvd	Diablo Rd and Karen Ave	Major Arterial	2	6D	54,000	12,200	0.23	A

Roadway	Segment	Classification	Lanes[1]		LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
			Existing	Buildout				
R53. Pierson Blvd	Karen Ave and Indian Canyon Dr	Major Arterial	2	6D	54,000	11,000	0.20	A
R54. Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	10,000	0.28	A
R55. Pierson Blvd	Little Morongo Rd and Cholla Dr	Minor Arterial	4	4D	36,000	13,600	0.38	A
R56. Pierson Blvd	Cholla Dr and Palm Dr	Minor Arterial	4	4D	36,000	8,900	0.25	A
R57. Pierson Blvd	east of Palm Dr	Secondary	4	4U	26,000	11,400	0.44	A
R60. Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	Minor Collector	n/a	4U	26,000	3,800	0.15	A
R61. Hacienda Ave	Little Morongo Rd and Cholla Dr	Minor Collector	n/a	4U	26,000	6,400	0.25	A
R62. Hacienda Ave	Cholla Dr and Palm Dr	Minor Collector	2	4U	26,000	11,600	0.45	A
R63. Hacienda Ave	Palm Dr and Mountain View Rd	Minor Collector	2	4U	26,000	10,500	0.40	A
R64. Hacienda Ave	east of Mountain View Rd	Minor Collector	2	4U	26,000	12,100	0.47	A
R69. Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	Secondary	n/a	4U	26,000	3,500	0.13	A
R70. Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Secondary	2	4U	26,000	14,600	0.56	A
R71. Two Bunch Palms Trail	Cholla Dr and Palm Dr	Secondary	4	4U	26,000	15,500	0.60	A
R72. Two Bunch Palms Trail	east of Palm Dr	Secondary	2	4U	26,000	10,400	0.40	A
R73. Dillon Rd	SR-62 and Worsley Rd	Major Arterial	2	6D	54,000	15,100	0.28	A
R74. Dillon Rd	Worsley Rd and Diablo Rd	Major Arterial	2	6D	54,000	8,900	0.16	A
R75. Dillon Rd	Diablo Rd and Karen Ave	Major Arterial	2	6D	54,000	11,100	0.21	A
R76. Dillon Rd	Karen Ave and Indian Canyon Dr	Major Arterial	2	6D	54,000	11,800	0.22	A
R77. Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	19,700	0.55	A
R78. Dillon Rd	Little Morongo Rd and Palm Dr	Minor Arterial	2	4D	36,000	23,000	0.64	B
R79. Dillon Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	4D	36,000	19,300	0.54	A
R80. Dillon Rd	Mountain View Rd and Long Canyon Rd	Major Arterial	2	6D	54,000	14,200	0.26	A
R81. Dillon Rd	east of Long Canyon Rd	Major Arterial	2	6D	54,000	18,000	0.33	A
R82. 20th Ave	Worsley Rd and Diablo Rd	Minor Collector	2	4U	26,000	8,100	0.31	A

Roadway	Segment	Classification	Lanes[1]		LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
			Existing	Buildout				
R83. 20th Ave	Diablo Rd and Karen Ave	Minor Collector	2	4U	26,000	4,800	0.18	A
R84. 20th Ave	Karen Ave and Indian Canyon Dr	Minor Collector	2	4U	26,000	3,800	0.15	A
R85. 20th Ave	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	10,700	0.30	A
R86. 20th Ave	Little Morongo Rd and Palm Dr	Minor Arterial	n/a	4D	36,000	8,700	0.24	A
R87. 20th Ave	Palm Dr and Mountain View Rd A	Minor Arterial	2	4D	36,000	10,100	0.28	A
R89. Varner Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	4D	36,000	7,800	0.22	A
R90. Varner Rd	east of Mountain View	Minor Arterial	2	4D	36,000	29,200	0.81	D

Notes:
[1]#D = #-Lanes Divided; #U = #-Lanes Undivded
[2]ADT = Average Daily Traffic; V/C = Volume/Capacity; LOS = Level of Service

Proposed General Plan Update (2040)
This section presents the Proposed General Plan Update traffic volume forecasts and operational analysis for the study roadway segments and intersections. For the Proposed General Plan Update (2040) analysis, the Traffic Analysis Zones (TAZs) and baseline roadway network were refined for the proposed General Plan land use plan. The baseline roadway classifications are based on the classification map used for prior General Plan updates as shown in Appendix F.

Intersection Level of Service. The study intersection LOS for the Proposed General Plan Update conditions without improvements are shown in Table 4.17-10. As shown in the table, 16 out of the 24 study intersections (listed below) are forecast to operate at unacceptable LOS (E or F) for General Plan Update conditions without improvements:

- Intersection 1: SR-62 at Indian Canyon Dr during the PM peak hours
- Intersection 2: SR-62 at Pierson Blvd during the AM and PM peak hours
- Intersection 5: Indian Canyon Dr at Pierson Blvd during the AM and PM peak hours
- Intersection 6: Indian Canyon Dr at 14th Ave during the AM and PM peak hours
- Intersection 7: Indian Canyon Dr at Dillon Rd during the AM and PM peak hours
- Intersection 8: Indian Canyon Dr at 20th Ave during the AM and PM peak hours
- Intersection 10: Little Morongo Rd at Pierson Blvd during the AM and PM peak hours
- Intersection 11: Little Morongo Rd at 14th Ave/Two Bunch Palms Trail during the AM and PM peak hours
- Intersection 12: Little Morongo Rd at Dillon Rd during the AM and PM peak hours
- Intersection 13: Little Morongo Rd at 20th Ave during the PM peak hours
- Intersection 18: Palm Dr at Dillon Rd during the AM and PM peak hours
- Intersection 19: Palm Dr at 20th Ave during the AM and PM peak hours
- Intersection 20: Palm Dr at Varner Rd during the AM and PM peak hours

- Intersection 22: Mountain View Rd at Dillon Rd during the AM peak hours
- Intersection 23: Mountain View Rd at Varner Rd during the AM and PM peak hours
- Intersection 24: Long Canyon Rd at Dillon Rd during the PM peak hours

It should be noted that under existing conditions, Intersections #7, #19, and #23 currently operate at unaccepatable LOS (either LOS E or F) during the AM Peak Hour, PM Peak Hour, or both AM and PM Peak Hours. Detailed intersection LOS calculation worksheets are provided in Appendix F.

Table 4.17-10
Proposed General Plan Update (2040) Intersection LOS (Without Improvements)

ID Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. SR-62 at Indian Canyon Dr	TS	35.9	D	273.9	F
2A. SR-62 SB at Pierson Blvd	CSS	10,000.0	F	10,000.0	F
2B. SR-62 NB at Pierson Blvd	CSS	10,000.0	F	10,000.0	F
3. SR-62 at Dillon Rd	TS	46.3	D	20.2	C
4. Indian Canyon Dr at Mission Lakes Blvd	TS	13.7	B	16.6	B
5. Indian Canyon Dr at Pierson Blvd	AWS	235.0	F	344.1	F
6. Indian Canyon Dr at 14th Ave	CSS	451.7	F	1,372.4	F
7. Indian Canyon Dr at Dillon Rd	AWS	635.3	F	736.5	F
8. Indian Canyon Dr at 20th Ave	TS	85.3	F	83.6	F
9. Little Morongo Rd at Mission Lakes Blvd/16th St	AWS	18.0	C	22.6	C
10. Little Morongo Rd at Pierson Blvd	AWS	233.3	F	305.8	F
11. Little Morongo Rd at 14th Ave/Two Bunch Palms Trail	AWS	209.2	F	489.4	F
12. Little Morongo Rd at Dillon Rd	AWS	350.6	F	304.0	F
13. Little Morongo Rd at 20th Ave	n/a	16.0	C	76.5	F
14. Palm Dr at 16th St	AWS	11.4	B	10.4	B
15. Palm Dr at Pierson Blvd	TS	23.5	C	20.5	C
16. Palm Dr at Hacienda Ave	TS	19.4	B	24.2	C
17. Palm Dr at Two Bunch Palms Trail	TS	51.1	D	48.6	D
18. Palm Dr at Dillon Rd	TS	111.5	F	64.3	E
19. Palm Dr at 20th Ave	CSS	10,000.0	F	10,000.0	F
20. Palm Dr at Varner Rd	TS	162.8	F	293.2	F
21. Mountain View Rd at Hacienda Ave	TS	26.6	C	34.6	C
22. Mountain View Rd at Dillon Rd	TS	61.9	E	24.4	C
23. Mountain View Rd at Varner Rd	AWS	403.6	F	350.6	F
24. Long Canyon Rd at Dillon Rd	AWS	25.9	D	79.7	F

Notes:
[1]TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
[2]Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
[3]LOS = Level of Service

The GPU includes several policies aimed at funding and addressing transportation improvements. These policies include the following:

- **Policy MI-5.4: Traffic Mitigation.** Consider a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.
- **Policy MI-9.3: Funding Sources.** Pursue grants and other innovative funding sources to pay for transportation improvements.
- **Policy MI-9.4: Special Assessments.** Support special assessment districts for street and traffic improvements.
- **Policy MI-10.1: Funding Transportation Network.** Operate under a fiscally constrained model to fund and maintain the existing and planned transportation network.
- **Policy MI-10.2: Expand Funding.** Prioritize funding to improve the built environment for people who walk, bike, take transit, and for other vulnerable roadway users, where fiscally prudent.
- **Policy MI-10.3: Impact Fees.** Ensure that impact fees provide adequate funding for necessary transportation improvements that will benefit all travel modes, while also incentivizing development that is less dependent on expensive, new transportation.
- **Policy MI-10.4: Mitigation Fees.** Continue to support programs that allow for traffic mitigation fees. Seek to adjust mitigation fee programs when needed so that developments pay fair-share contributions toward improvements that result in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.
- **Policy MI-10.5: Capital Improvement Planning.** Coordinate capital improvement planning and implementation inclusive of both transportation and utility infrastructure that efficiently use rights-of-ways.
- **Policy MI-10.6: Regional Participation.** Participate and represent the City's interest in mobility-related regional planning activities and encourage acceptance of City positions on regional transportation issues.

To address future transportation impacts at the identified intersections, infrastructure and traffic control improvements are described below in Mitigation Measure TRANS-1. These measures would be implemented over multiple years as individual projects are developed near these locations, in coordination with the land use policies of the General Plan Update, to mitigate the identified intersection.

As shown in Table 4.17-11, study intersection LOS for Proposed General Plan Update conditions, with the identified improvements, are forecast to operate within acceptable LOS (D or better) for Proposed General Plan Update conditions. However, even though the identified improvements would result in acceptable LOS, some improvements may not be implemented for the following reasons:

- Intersections #1 and #2 are Caltrans facilities; as such, the City cannot guarantee that the identified improvements can be implemented.
- Intersection #18 has existing development on the southwest corner and northeast corner of the intersection which may preclude construction of the identified improvements.

- Intersections #20 and #23 are located partially, or entirely, within the City of Cathedral City jurisdiction and the City of Desert Hot Springs cannot guarantee installation of the improvements.

Additionally, some intersections, or parts of intersections, are located on the boundary of Riverside County; study intersections identified on the boundary with the County or Riverside are considered feasible based on past improvements whereby the City and County have jointly constructed any necessary improvements identified by the City of Desert Hot Springs

Table 4.17-11
Proposed General Plan Update With Improvements Intersection LOS

ID Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. SR-62 at Indian Canyon Dr	TS	16.9	B	54.2	D
2. SR-62 at Pierson Blvd	TS	22.9	C	35.8	D
3. SR-62 at Dillon Rd	TS	46.3	D	20.2	C
4. Indian Canyon Dr at Mission Lakes Blvd	TS	13.7	B	16.6	B
5. Indian Canyon Dr at Pierson Blvd	TS	23.1	C	20.8	C
6. Indian Canyon Dr at 14th Ave	TS	13.7	B	50.1	D
7. Indian Canyon Dr at Dillon Rd	TS	31.5	C	33.4	C
8. Indian Canyon Dr at 20th Ave	TS	44.0	D	39.0	D
9. Little Morongo Rd at Mission Lakes Blvd/16th St	AWS	18.0	C	22.6	C
10. Little Morongo Rd at Pierson Blvd	TS	16.2	B	19.3	B
11. Little Morongo Rd at 14th Ave/Two Bunch Palms Trail	TS	18.7	B	12.9	B
12. Little Morongo Rd at Dillon Rd	TS	33.7	C	35.8	D
13. Little Morongo Rd at 20th Ave	AWS	15.9	C	17.7	C
14. Palm Dr at 16th St	AWS	11.4	B	10.4	B
15. Palm Dr at Pierson Blvd	TS	23.5	C	20.5	C
16. Palm Dr at Hacienda Ave	TS	19.4	B	24.2	C
17. Palm Dr at Two Bunch Palms Trail	TS	51.1	D	48.6	D
18. Palm Dr at Dillon Rd	TS	42.5	D	48.3	D
19. Palm Dr at 20th Ave	TS	14.7	B	16.7	B
20. Palm Dr at Varner Rd	TS	54.8	D	43.3	D
21. Mountain View Rd at Hacienda Ave	TS	26.6	C	34.6	C
22. Mountain View Rd at Dillon Rd	TS	46.5	D	24.1	C
23. Mountain View Rd at Varner Rd	TS	46.2	D	46.6	D
24. Long Canyon Rd at Dillon Rd	AWS	17.0	C	20.0	C

Notes:
[1]TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
[2]Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
[3]LOS = Level of Service

Roadway Segment Level of Service. The baseline study roadway segment capacity analysis and LOS for the Proposed General Plan Update conditions are shown in Table 4.17-12. As shown in the table, the study roadway segments are forecast to operate within acceptable LOS (D or better) for Proposed General Plan Update conditions assuming roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications.

In the past, the City has generally been able to secure right-of-way needed to provide full-width mid-block roadway improvements, and has also been able to secure additional right-of-way along major arterials for roadway expansions. The need for expanded intersection improvements throughout the City would require that additional right-of-way be secured to provide for additional through lanes and turning lanes. The expansions of travel lanes based on their roadway classifications would require the acquisition of additional right-of-way.

While Table 4.17-12 shows that roadway segments are forecast to operate within acceptable LOS (D or better) for Proposed General Plan Update conditions with the identified roadway widening, the identified widening may not be able to occur in all instances. Existing development may prevent the identified widening at the following roadway segments:

- Indian Canyon Drive: 13th Ave to 14th Ave – (R19)
- Indian Canyon Drive: Dillon Road and 20th Avenue – (R21)
- Palm Drive: Two Bunch Palms Trail and Dillon Road – (R34)
- Palm Drive: Dillon Road and 20th Avenue – (R35)
- Palm Drive: Varner Road and I-10 Freeway – (R37)
- Mountain View Road: Hacienda Avenue and Dillon Road – (R40)
- Two Bunch Palms Trail: east of Palm Drive – (R72)

Additionally, the following roadway segments are not located within the ultimate jurisdictional boundary of the City of Desert Hot Springs:

- Mountain View Road: 20th Avenue and Varner Road – (R42)
- Dillon Road: Diablo Road and Karen Avenue – (R75)
- Dillon Road: east of Long Canyon Road – (R81)
- 20th Avenue: Worsley Road and Diablo Road – (R82)
- 20th Avenue: Diablo Road and Karen Avenue – (R83)
- 20th Avenue: Karen Avenue and Indian Canyon Drive – (R84)
- Varner Road: Palm Drive and Mountain View Road – (R89)
- Varner Road: east of Mountain View Road – (R90)

Although these segments require roadway widening, the proposed widening has equal or fewer lanes and right-of-way requirements than those identified in the County of Riverside General Plan. Therefore, it is presumed the widening will occur as necessary and the project impact is considered less than significant with mitigation.

Future development projects associated with implementation of the GPU would be required to undergo environmental review, which would include an evaluation of transportation related impacts. Additionally, the GPU includes several policies to ensure that future project specific impacts are addressed, including:

- **Policy MI-5.4: Traffic Mitigation.** Consider a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.
- **Policy MI-9.4: Special Assessments.** Support special assessment districts for street and traffic improvements.
- **Policy MI-10.3: Impact Fees.** Ensure that impact fees provide adequate funding for necessary transportation improvements that will benefit all travel modes, while also incentivizing development that is less dependent on expensive, new transportation.
- **Policy MI-10.4: Mitigation Fees.** Continue to support programs that allow for traffic mitigation fees. Seek to adjust mitigation fee programs when needed so that developments pay fair-share contributions toward improvements that result in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.

Consistent with City practice, as specific development projects are proposed, the City would analyze impacts to the transportation system. While the above analysis shows that all roadway segments would operate at an acceptable LOS assuming expansion based on the roadway classification, given the uncertainty of timing regarding future roadway improvements, it is possible that some segments would experience unacceptable LOS prior to installation of the roadway expansion improvement. Additionally, there is also a possibility that not all identified roadway improvements would be ultimately constructed due to site specific physical constraints. Given the uncertainty of timing of installation of roadway improvements, and because there may be physical constraints to expanding roadways as certain locations within the Planning Area, this would be considered a significant and unavoidable impact to roadway segment operations.

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Table 4.17-12
Proposed General Plan Update Roadway Segment Levels of Service

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R1. Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	2	Minor Collector	4U	26,000	700	0.03	A	Collector	2D	18,000	700	0.04	A
R2. Worsley Rd	Mission Lakes Blvd and Pierson Blvd	2	Minor Collector	4U	26,000	6,700	0.26	A	Collector	2D	18,000	6,700	0.37	A
R3. Worsley Rd	Pierson Blvd and Hacienda Blvd	2	Minor Collector	4U	26,000	700	0.03	A	Collector	2D	18,000	700	0.04	A
R4. Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	400	0.02	A	Collector	2D	18,000	400	0.02	A
R5. Worsley Rd	Two Bunch Palms Trail and Dillon Rd	2	Minor Collector	4U	26,000	500	0.02	A	Collector	2D	18,000	500	0.03	A
R6. Worsley Rd	Dillon Rd and 20th Ave	2	Minor Collector	4U	26,000	1,000	0.04	A	Collector	2D	18,000	1,000	0.06	A
R7. Oasis Dr	14th Ave to 14th Ave	n/a	Secondary	4U	26,000	4,600	0.18	A	Collector	2D	18,000	4,600	0.26	A
R8. Diablo Rd	14th Ave and Dillon Rd	2	Local Collector	2U	13,000	5,000	0.38	A	Collector	2D	18,000	5,000	0.28	A
R9. Karen Ave	Indian Canyon Dr and 10th Ave	n/a	Secondary	4U	26,000	7,800	0.30	A	Collector	2D	18,000	7,800	0.43	A
R10. Karen Ave	10th Ave and Pierson Blvd	2	Secondary	4U	26,000	7,700	0.30	A	Collector	2D	18,000	7,700	0.43	A
R11. Karen Ave	Pierson Blvd and 13th Ave	n/a	Secondary	4U	26,000	9,800	0.38	A	Collector	2D	18,000	9,800	0.54	A
R12. Karen Ave	13th Ave and 14th Ave	n/a	Secondary	4U	26,000	11,400	0.44	A	Collector	2D	18,000	11,400	0.63	B
R13. Karen Ave	14th Avenue and Dillon Road	n/a	Secondary	4U	26,000	11,000	0.42	A	Collector	2D	18,000	11,000	0.61	B
R14. Indian Canyon Dr	SR-62 and Worsley Rd	2	Minor Arterial	4D	36,000	19,100	0.53	A	Secondary II	4U	26,000	19,100	0.73	C

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R15. Indian Canyon Dr	Worsley Rd and Karen Ave	2	Minor Arterial	4D	36,000	17,900	0.50	A	Secondary II	4U	26,000	17,900	0.69	B
R16. Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	2	Minor Arterial	4D	36,000	11,700	0.33	A	Secondary II	4U	26,000	11,700	0.45	A
R17. Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	2	Minor Arterial	4D	36,000	13,600	0.38	A	Secondary II	4U	26,000	13,600	0.52	A
R18. Indian Canyon Dr	Pierson Blvd and 13th Ave	2	Major Arterial	6D	54,000	24,800	0.46	A	Primary II	4D	36,000	24,800	0.69	B
R19. Indian Canyon Dr	13th Ave to 14th Ave	2	Major Arterial	6D	54,000	26,700	0.49	A	Primary II	4D	36,000	26,700	0.74	C
R20. Indian Canyon Dr	14th Ave and Dillon Rd	2	Major Arterial	6D	54,000	26,700	0.49	A	Primary II	4D	36,000	26,700	0.74	C
R21. Indian Canyon Dr	Dillon Rd and 20th Ave	2	Urban Arterial	8D	72,000	39,200	0.54	A	Primary I	6D	54,000	39,200	0.73	C
R22. Little Morongo Rd	north of Mission Lakes Blvd	2	Minor Collector	4U	26,000	3,100	0.12	A	Local Collector	2U	13,000	3,100	0.24	A
R23. Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	2	Minor Collector	4U	26,000	17,200	0.66	B	Secondary II	4U	26,000	17,200	0.66	B
R24. Little Morongo Rd	Pierson Blvd and Hacienda Ave A	2	Minor Collector	4U	26,000	14,500	0.56	A	Secondary II	4U	26,000	14,500	0.56	A
R25. Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	14,300	0.55	A	Secondary II	4U	26,000	14,300	0.55	A
R26. Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	2	Major Arterial	6D	54,000	19,500	0.36	A	Secondary II	4U	26,000	19,500	0.75	C
R27. Little Morongo Rd	Dillon Rd and 20th Ave	n/a	Major Arterial	6D	54,000	10,500	0.19	A	Secondary II	4U	26,000	10,500	0.40	A
R28. West Dr	8th St and Pierson Blvd	2	Minor Collector	4U	26,000	4,200	0.16	A	Local Collector	2U	13,000	4,200	0.32	A

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R29. West Dr	Hacienda Ave and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	5,600	0.22	A	Local Collector	2U	13,000	5,600	0.43	A
R30. Palm Dr	north of Mission Lakes Blvd	2	Secondary	4U	26,000	400	0.02	A	Local Collector	2U	13,000	400	0.03	A
R31. Palm Dr	Mission Lakes Blvd and Pierson Blvd	4	Minor Collector	4U	26,000	16,500	0.63	B	Secondary II	4U	26,000	16,500	0.63	B
R32. Palm Dr	Pierson Blvd and Hacienda Ave	4	Major Collector	4D	36,000	24,000	0.67	B	Secondary I	4D	36,000	24,000	0.67	B
R33. Palm Dr	Hacienda Ave and Two Bunch Palms Trail	4	Major Collector	4D	36,000	31,600	0.88	D	Secondary I	4D	36,000	31,600	0.88	D
R34. Palm Dr	Two Bunch Palms Trail and Dillon Rd	4	Major Arterial	6D	54,000	46,400	0.86	D	Primary I	6D	54,000	46,400	0.86	D
R35. Palm Dr	Dillon Rd and 20th Ave	4	Urban Arterial	8D	72,000	48,500	0.67	B	Urban Arterial	8D	72,000	48,500	0.67	B
R36. Palm Dr	20th Ave and Varner Rd	4	Urban Arterial	8D	72,000	52,400	0.73	C	Urban Arterial	8D	72,000	52,400	0.73	C
R37. Palm Dr	Varner Rd and I-10 Freeway	4	Urban Arterial	8D	72,000	49,700	0.69	B	Urban Arterial	8D	72,000	49,700	0.69	B
R38. Bubbling Wells Rd	north of Dillon Rd	2	Minor Collector	4U	26,000	3,500	0.13	A	Local Collector	2U	13,000	3,500	0.27	A
R39. Bubbling Wells Rd	Dillon Rd and 20th Ave	2	Minor Collector	4U	26.000	2,200	0.08	A	Local Collector	2U	13,000	2,200	0.17	A
R40. Mountain View Rd	Hacienda Ave and Dillon Rd	2	Minor Arterial	4D	36,000	12,200	0.34	A	Secondary II	4U	26,000	12,200	0.47	A
R41. Mountain View Rd	Dillon Rd and 20th Ave	2	Minor Arterial	4D	36,000	15,800	0.44	A	Secondary II	4U	26,000	15,800	0.61	B

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R42. Mountain View Rd	20th Ave and Varner Rd	2	Minor Arterial	4D	36,000	20,600	0.57	A	Secondary II	4U	26,000	20,600	0.79	C
R43. Long Canyon Rd	north of Dillon Rd	2	Minor Collector	4U	26,000	3,400	0.13	A	Collector	2D	18,000	3,400	0.19	A
R44. Mission Lakes Blvd	SR-62 and Worsley Rd	n/a	Major Collector	4D	36,000	3,100	0.09	A	Collector	2D	18,000	3,100	0.17	A
R45. Mission Lakes Blvd	Worsley Rd and Karen Rd	n/a	Minor Collector	4U	26,000	3,800	0.15	A	Collector	2D	18,000	3,800	0.21	A
R46. Mission Lakes Blvd	Karen Rd and Indian Canyon Rd	n/a	Minor Collector	4U	26,000	6,300	0.24	A	Collector	2D	18,000	6,300	0.35	A
R47. Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	2	Minor Collector	4U	26,000	5,700	0.22	A	Collector	2D	18,000	5,700	0.32	A
R48. Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	2	Minor Collector	4U	26,000	10,800	0.42	A	Collector	2D	18,000	10,800	0.60	A
R49. Mission Lakes Blvd	Cholla Dr and Palm Dr	2	Minor Collector	4U	26,000	4,600	0.18	A	Collector	2D	18,000	4,600	0.26	A
R50. Pierson Blvd	SR-62 and Worsley Rd	2	Major Arterial	6D	54,000	14,200	0.26	A	Primary II	4D	36,000	14,200	0.39	A
R51. Pierson Blvd	Worsley Rd and Diablo Rd	2	Major Arterial	6D	54,000	16,200	0.30	A	Primary II	4D	36,000	16,200	0.45	A
R52. Pierson Blvd	Diablo Rd and Karen Ave	2	Major Arterial	6D	54,000	16,200	0.30	A	Primary II	4D	36,000	16,200	0.45	A
R53. Pierson Blvd	Karen Ave and Indian Canyon Dr	2	Major Arterial	6D	54,000	14,200	0.26	A	Primary II	4D	36,000	14,200	0.39	A
R54. Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	13,700	0.38	A	Primary II	4D	36,000	13,700	0.38	A

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R55. Pierson Blvd	Little Morongo Rd and Cholla Dr	4	Minor Arterial	4D	36,000	12,500	0.35	A	Primary II	4D	36,000	12,500	0.35	A
R56. Pierson Blvd	Cholla Dr and Palm Dr	4	Minor Arterial	4D	36,000	8,300	0.23	A	Primary II	4D	36,000	8,300	0.23	A
R57. Pierson Blvd	east of Palm Dr	4	Secondary	4U	26,000	6,500	0.25	A	Secondary II	4U	26,000	6,500	0.25	A
R58. Hacienda Ave	Diablo Rd and Karen Ave	n/a	Secondary	4U	26,000	4,500	0.17	A	Collector	2D	18,000	4,500	0.25	A
R59. Hacienda Ave	Karen Ave and Indian Canyon Dr	n/a	Secondary	4U	26,000	2,200	0.08	A	Collector	2D	18,000	2,200	0.12	A
R60. Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	n/a	Minor Collector	4U	26,000	3,800	0.15	A	Collector	2D	18,000	3,800	0.21	A
R61. Hacienda Ave	Little Morongo Rd and Cholla Dr	n/a	Minor Collector	4U	26,000	3,200	0.12	A	Collector	2D	18,000	3,200	0.18	A
R62. Hacienda Ave	Cholla Dr and Palm Dr	2	Minor Collector	4U	26,000	6,800	0.26	A	Collector	2D	18,000	6,800	0.38	A
R63. Hacienda Ave	Palm Dr and Mountain View Rd	2	Minor Collector	4U	26,000	10,300	0.40	A	Collector	2D	18,000	10,300	0.57	A
R64. Hacienda Ave	east of Mountain View Rd	2	Minor Collector	4U	26,000	10,700	0.41	A	Collector	2D	18,000	10,700	0.59	A
R65. Two Bunch Palms Trail	SR-62 and Worsley Rd	n/a	Secondary	4U	26,000	500	0.02	A	Secondary II	4U	26,000	500	0.02	A
R66. Two Bunch Palms Trail	Worsley Rd and Diablo Rd	n/a	Secondary	4U	26,000	500	0.02	A	Secondary II	4U	26,000	500	0.02	A
R67. Two Bunch Palms Trail	Diablo Rd and Karen Ave	n/a	Secondary	4U	26,000	2,100	0.08	A	Secondary II	4U	26,000	2,100	0.08	A

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R68. Two Bunch Palms Trail	Karen Ave and Indian Canyon Dr	n/a	Secondary	4U	26,000	3,600	0.14	A	Secondary II	4U	26,000	3,600	0.14	A
R69. Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	n/a	Secondary	4U	26,000	5,800	0.22	A	Secondary II	4U	26,000	5,800	0.22	A
R70. Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	2	Secondary	4U	26,000	16,000	0.62	B	Secondary II	4U	26,000	16,000	0.62	B
R71. Two Bunch Palms Trail	Cholla Dr and Palm Dr	4	Secondary	4U	26,000	16,900	0.65	B	Secondary II	4U	26,000	16,900	0.65	B
R72. Two Bunch Palms Trail	east of Palm Dr	2	Secondary	4U	26,000	16,800	0.65	B	Secondary II	4U	26,000	16,800	0.65	B
R73. Dillon Rd	SR-62 and Worsley Rd	2	Major Arterial	6D	54,000	9,200	0.17	A	Secondary I	4D	36,000	9,200	0.26	A
R74. Dillon Rd	Worsley Rd and Diablo Rd	2	Major Arterial	6D	54,000	9,000	0.17	A	Secondary I	4D	36,000	9,000	0.25	A
R75. Dillon Rd	Diablo Rd and Karen Ave	2	Major Arterial	6D	54,000	11,900	0.22	A	Secondary I	4D	36,000	11,900	0.33	A
R76. Dillon Rd	Karen Ave and Indian Canyon Dr	2	Major Arterial	6D	54,000	13,700	0.25	A	Secondary I	4D	36.000	13,700	0.38	A
R77. Dillon Rd	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	21,800	0.61	B	Secondary I	4D	36.000	21,800	0.61	B
R78. Dillon Rd	Little Morongo Rd and Palm Dr	2	Minor Arterial	4D	36,000	22,300	0.62	B	Secondary I	4D	36,000	22,300	0.62	B
R79. Dillon Rd	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	21,000	0.58	A	Secondary I	4D	36,000	21,000	0.58	A
R80. Dillon Rd	Mountain View Rd and Long Canyon Rd	2	Major Arterial	6D	54,000	13,900	0.26	A	Secondary I	4D	36.000	13,900	0.39	A

Roadway	Segment	Existing Lanes	Proposed Buildout with Baseline Classifications						Proposed Buildout with Recommended Classifications					
			Current Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Classification	Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R81. Dillon Rd	east of Long Canyon Rd	2	Major Arterial	6D	54,000	18,200	0.34	A	Secondary I	4D	36.000	18,200	0.51	A
R82. 20th Ave	Worsley Rd and Diablo Rd	2	Minor Collector	4U	26,000	1,600	0.06	A	Collector	2D	18,000	1,600	0.09	A
R83. 20th Ave	Diablo Rd and Karen Ave	2	Minor Collector	4U	26,000	2,100	0.08	A	Collector	2D	18,000	2,100	0.12	A
R84. 20th Ave	Karen Ave and Indian Canyon Dr	2	Minor Collector	4U	26,000	11,400	0.44	A	Collector	2D	18,000	11,400	0.63	B
R85. 20th Ave	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	10,100	0.28	A	Collector	2D	18,000	10,100	0.56	A
R87. 20th Ave	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	7,900	0.22	A	Collector	2D	18,000	7,900	0.44	A
R88. Varnerr Rd	Mihaylo Rd and Palm Dr.	2	Minor Arterial	4D	36,000	17,300	0.48	A	Secondary II	4U	26,000	17,300	0.67	B
R89. Varner Rd	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	13,600	0.38	A	Primary II	4D	36,000	13,600	0.38	A
R90. Varner Rd	east of Mountain View	2	Minor Arterial	4D	36,000	28,300	0.79	C	Primary II	4D	36,000	28,300	0.79	C

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<u>*Level of Significance Before Mitigation*</u>

Potentially significant

<u>*Mitigation Measures*</u>

Mitigation Measures TRANS-1: In order to ensure proper timing for the installation of the identified intersection improvements and roadway widening, project proponents, in consultation with the City Public Works Department, shall be required to prepare a traffic impact analysis for their proposed project when it is determined by the Public Works Department that the project could potentially impact intersection or segment operations, and additional analysis is warrented. If a project would directly cause an intersection or roadway segment to degrade to an unacceptable Level of Service (LOS E or F), the project proponent shall be responsible for providing improvements (described below or otherwise identified by the City) necessary to maintain an acceptable LOS; improvements provided by a project proponent may be eligible for reimbursement of costs in excess of the project's fair share, subject to a reimbursement agreement with the City. If a project impacts an intersection or roadway segment, but would not cause an unacceptable LOS at an intersection, project proponents shall be required to pay a proportionate fair share amount towards the future improvement of the intersection or roadway segment. Specific intersection improvements are listed below:

Intersection 1: SR-62 at Indian Canyon Drive
While improvements to the intersection (described in Appendix F) would result in an acceptable LOS, SR-62 is a Caltrans facility and the City of Desert Hot Springs cannot guarantee installation of the improvements. ***This impact is considered significant and unavoidable.***

Intersection 2: SR-62 at Pierson Boulevard
While improvements to the intersection (described in Appendix F) would result in an acceptable LOS, SR-62 is a Caltrans facility and the City of Desert Hot Springs cannot guarantee installation of the improvements. ***This impact is considered significant and unavoidable.***

Intersection 4: Indian Canyon Drive at Mission Lakes Boulevard
Implement the following intersection improvements:

- Northbound: One shared left/through lane and one right turn lane
- Southbound: One left turn lane and one shared through/right turn lane
- Eastbound: One shared left/through/right lane
- Westbound: One left turn lane and one shared through/right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 5: Indian Canyon Drive at Pierson Boulevard
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One left turn lane, one through lane, and one right turn lane
- Southbound: One shared left/through/right turn lane

- Eastbound: One shared left/through lane and one shared through/right turn lane
- Westbound: One left turn lane and one shared through/right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 6: Indian Canyon Drive at Two Bunch Palms Trail
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One shared left/through/right turn lane
- Southbound: One left turn lane and one shared through/right turn lane
- Eastbound: One shared left/through/right turn lane
- Westbound: One shared left/through/right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 7: Indian Canyon Drive at Dillon Road
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One left turn, two through lanes, and one right turn lane
- Southbound: One left turn, two through lanes, and one right turn lane
- Eastbound: One left turn lane, one through lane, and one right turn lane
- Westbound: Two left turn lanes, one through lane, and one right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 8: Indian Canyon Drive at 20th Avenue
Implement the following intersection improvements:

- Northbound: One left turn lane, two through lanes, and one right turn lane
- Southbound: One left turn lane, two through lanes, and one shared through/right turn lane
- Eastbound: One left turn lane, one through lane, and one right turn lane
- Westbound: Two left turn lanes, one shared through/right turn lane, and one right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 10: Little Morongo Road at Pierson Boulevard
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One shared left/through/right turn lane
- Southbound: One shared left/through/right turn lane
- Eastbound: One left turn lane, one through lane, and one right turn lane
- Westbound: One left turn lane, one through lane, and one right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

Intersection 11: Little Morongo Road at Two Bunch Palms Trail
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One left turn lane, one through lane, and one right turn lane
- Southbound: One shared left/through/right turn lane
- Eastbound: One shared left/through/right turn lane
- Westbound: One left turn lane, one through lane, and one right turn lane

With implementation of the identified improvements, this impact would be considered less than significant.

Intersection 12: Little Morongo Road at Dillon Road
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One left turn lane, one through lane, and one right turn lane
- Southbound: One left turn lane, one through lane, and one right turn lane
- Eastbound: Two left turn lanes and one shared through/right turn lane
- Westbound: One left turn lane and one shared through/right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

Intersection 13: Little Morongo Road at 20th Avenue
Implement the following intersection improvements:

- Construct new intersection with all way stop control
- Northbound: One left turn lane and one shared through/right turn lane
- Southbound: One shared left/through/right turn lane
- Eastbound: One shared left/through/right turn lane

- Westbound: One shared left/through/right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

Intersection 18: Palm Drive at Dillon Road
Implement the following intersection improvements:

- Northbound: Two left turn lanes, two through lanes, and one right turn lane
- Southbound: One left turn lane, two through lanes, and one right turn lane
- Eastbound: One left turn lane, one through lane, and one right turn lane
- Westbound: Two left turn lanes, one through lane, and one right turn lane

While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented given existing constraints at this location. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is identified as significant and unavoidable impact.***

Intersection 19: Palm Drive at 20th Avenue
Implement the following intersection improvements:

- Install a traffic signal
- Northbound: One left turn lane, two through lanes, and one right turn lane
- Southbound: One left turn lane, three through lanes, and one right turn lane
- Eastbound: One shared left/through/right turn lane
- Westbound: One shared left/through/right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

Intersection 20: Palm Drive at Varner Road
Implement the following intersection improvements:

- Northbound: One left turn lane, three through lanes, and one right turn lane
- Southbound: One left turn lane, three through lanes, and one right turn lane
- Eastbound: One left turn lane, one through lane, and one right turn lane
- Westbound: Two left turn lanes, two through lanes, and one right turn lane

While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented as the intersection is located within City of Cathedral City jurisdiction. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is considered significant and unavoidable.***

Intersection 22: Mountain View Road at Dillon Road
Implement the following intersection improvements:

- Northbound: One left turn lane and one shared through/right turn lane
- Southbound: One left turn lane and one shared through/right turn lane
- Eastbound: One left turn lane and one shared through/right turn lane
- Westbound: Two left turn lanes and one shared through/right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

Intersection 23: Mountain View Road at Varner Road
Implement the following intersection improvements:

- Install a traffic signal
- Southbound: One left turn lane and one right turn lane
- Eastbound: One shared through/right turn lane
- Westbound: One through lane and one right turn lane

While the above configuration would result in an acceptable LOS at this intersection, it is unclear if these improvements can be implemented as the intersection is located within City of Cathedral City jurisdiction. As implementation of this improvement cannot be guaranteed, ***the impact at this intersection is considered significant and unavoidable.***

Intersection 24: Long Canyon Road at Dillon Road
Implement the following intersection improvements:

- Northbound: One shared left/through lane and one right turn lane
- Southbound: One left turn lane and one shared through/right turn lane
- Eastbound: One left turn lane, one through lane, and one shared through/right turn lane
- Westbound: One left turn lane, one through lane, and one right turn lane

With implementation of the identified improvement, this impact would be considered less than significant.

<u>Level of Significance After Mitigation</u>

Significant and Unavoidable Impact to intersection and roadway operations

Summary. Implementation of the GPU would result in significant and unavoidable impacts at the following intersections:

- Intersection 1: SR-62 at Indian Canyon Drive
- Intersection 2: SR-62 at Pierson Boulevard
- Intersection 18: Palm Drive at Dillon Road

- Intersection 20: Palm Drive at Varner Road
- Intersection 23: Mountain View Road at Varner Road

It should be noted that Intersections #1 and #2 are intersections with SR-62, a Caltrans facility. While improvements to the intersection have been identified which would improve operations to an accepatable LOS (detailed in Appendix F), because these are Caltrans facilities, the City can not guarantee improvements to these intersections would be implemented. As such, improvements for these two intersection have not been included in Mitigation Measure TRANS-1, and the application of fair share payments described in Mitigation Measure TRANS-1 would not be applicable to these two intersections.

Implementation of the GPU has the potential to result in significant and unavoidable impacts at the following roadway segments:

- Indian Canyon Drive: 13th Ave to 14th Ave – (R19)
- Indian Canyon Drive: Dillon Road and 20th Avenue – (R21)
- Palm Drive: Two Bunch Palms Trail and Dillon Road – (R34)
- Palm Drive: Dillon Road and 20th Avenue – (R35)
- Palm Drive: Varner Road and I-10 Freeway – (R37)
- Mountain View Road: Hacienda Avenue and Dillon Road – (R40)
- Two Bunch Palms Trail: east of Palm Drive – (R72)

Congestion Management Program
As described in the Riverside County Congestion Management Program (CMP), the intent of the CMP is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively use transportation funds, alleviate traffic congestion and related impacts, and improve air quality. The Riverside County CMP identifies both I-10 Freeway and SR-62 as CMP highways. As described in the CMP, the adopted minimum LOS threshold is LOS E.

The GPU would not proposed any changes to I-10. However, buildout of the GPU could potentially conflict with the CMP as improvements to intersection #1 (SR-62 at Indian Canyon Drive) and intersection #2 (SR-62 at Pierson Boulevard), would need to be installed in order to maintain acceptable LOS at these intersections. As these intersections are outside of the City’s jurisdiction, and the City cannot guarantee installation of the improvements, the impact would be considered significant.

<u>*Level of Significance Before Mitigation*</u>

Potentially significant

<u>*Mitigation Measures*</u>

As the Lead Agency (City of Desert Hot Springs) does not have jurisdiction over the implementation and timing of improvement necessary to reduce impacts to less-than-significant levels, no feasible mitigation measures are available

Level of Significance After Mitigation

Significant and Unavoidable impact to a CMP Highway

Transit, Bicycle and Pedestrian Facilities

Alternative transportation includes a variety of travel modes, including pedestrian, bicycle, equestrian, and transit use. The General Plan Update will not significantly conflict with any adopted plan, program, or policy related to alternative transportation, including public transit, bicycle, or pedestrian facilities. Consistent with City practice, as specific development projects are proposed, the City would analyze impacts to the transportation system. The General Plan Update includes specific transportation goals and policies that will further enhance different modes of transportation, including the following:

- **Policy MI-1.1: Transportation Network Improvements.** Establish and maintain a multimodal mobility plan which sets forth improvement plans and project prioritization for a variety of modes and users of the transportation network.
- **Policy MI-1.3: Multi-Modal.** Aim to develop a multimodal and/or multipurpose approach when implementing infrastructure outlined in the Mobility Plan.
- **GOAL MI-2:** Streets that are designed and managed to enable safe access for all users: pedestrians, equestrians, bicyclists, motorists, and transit riders of all ages and abilities.
- **Policy MI-2.1: Complete Streets.** Implement complete streets strategies to accommodate all users of different ages and abilities.
- **Policy MI-2.2: Balanced Transportation System.** Implement a balanced transportation system using complete streets principles to ensure the safety and mobility of all users.
- **Policy MI-2.6: Rights-of-Ways.** Use available public rights-of-ways to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.
- **Policy MI-3.7: Pedestrian Street Design.** Explore enhanced pedestrian designs, including but not limited to way-finding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, automatic pedestrian signals, reduced crossing lengths, wider sidewalks, and specialty paving and seating areas.
- **Policy MI-4.1: Prioritize Walking.** Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
- **Policy MI-4.3: Connectivity.** Require that new developments increase connectivity through direct and safe pedestrian and bicycling connections to the established network.
- **Policy MI-7.1: Bus Service.** Improve the performance and reliability of existing and future bus service.
- **Policy MI-7.2: Transit Expansion.** Encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency, Native American tribes, and other external providers within the City.
- **Policy MI-7.3: Transit Facilities.** Require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities such as trash receptacles, signage, seating, shelters, and lighting.

- **Policy MI-7.4: Paratransit.** Continue paratransit programs, and seek to augment services from suitable partners to alleviate travel costs of seniors and/or the disabled.

Level of Significance Before Mitigation

Less than significant impact related to a program, plan, ordinance or policy conflict addressing transit, bicycle and pedestrian facilities

Mitigation Measures

None required

B. Conflict or be inconsistent with CEQA Guidelines section 15064.3[2], subdivision (b)?

CEQA Guidelines Section 15064.3 subdivision (b) has been added to the 2019 CEQA Guidelines as part of the implementation of SB 743, which requires local jurisdictions to use Vehicle Miles Traveled (VMT) instead of LOS methodologies for the purpose of determining the significance of traffic impacts under CEQA. Also, as part of the implementation of SB 743, local jurisdictions are given until July 1, 2020 to develop and implement thresholds of significance criteria and methodologies for evaluating VMT under the new SB 743 requirements. Therefore, at this time, Section 15064.3(b) of the CEQA Guidelines is not applicable to the General Plan Update.

C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Implementation of the GPU would result in additional development within the City; no specific development projects have been included in the GPU or have been evaluated within this EIR. As is standard practice, the City would review all potential development proposals to evaluate hazards related to design features or incompatible uses. The feasible transportation mitigations described in this section can be implemented through professional traffic engineering and design, with no substantial increase in hazards due to geometric design features.

Level of Significance Before Mitigation

Less than significant

Mitigation Measures

None required

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[2] CEQA Guidelines section 15064.3(c) provides that a lead agency “may elect to be governed by the provisions” of the section immediately; otherwise, the section’s provisions apply July 1, 2020. Here, the City has not elected to be governed by Section 15064.3. Accordingly, an analysis of vehicles miles traveled (VMT) is not necessary to determine whether a proposed project will have a significant transportation impact.

D. Result in inadequate emergency access?

The Project would maintain existing road access throughout the Planning Area. All individual project associated with implementation of the GPU would be subject to review and approval by the City of Desert Hot Springs as well as the Riverside County Fire Department, including for emergency access and construction activities within road rights-of-way related to improvement or maintenance for roadways, utilities and other infrastructure.

Level of Significance Before Mitigation

Less than Significant

Mitigation Measures

None Required

E. Would the project cause substantial adverse cumulative impacts with respect to transportation and traffic?

The analysis within this EIR section evaluated the existing conditions, 2040 Baseline Conditions, and Proposed General Plan Update (Year 2040). In accordance with standard post-processing procedures, the long-range traffic volume forecasts have been determined using a growth increment approach on the Year 2008 and Year 2040 roadway link volumes. This difference defines the growth in traffic volumes over the 32 year period. The incremental traffic growth was factored to reflect the forecast growth between existing traffic volumes (Year 2019) and Year 2040. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2040 condition was assumed. Since the increment between existing Year 2019 and Year 2040 is 21 years of the 32 year time frame, a factor of 0.65 (i.e., 21/32) was used.

To derive AM and PM peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure traffic growth. The end results of the post-processing procedures are future traffic volumes suitable for analysis.

As described in Section 4.17.4 (A), 16 out of the 24 study intersections are forecast to operate at unacceptable LOS (E or F) for Proposed General Plan Update (2040) conditions without improvements. It should be noted that under existing conditions, Intersections #7, #19, and #23 currently operate at unaccepatable LOS (either LOS E or F) during the AM Peak Hour, PM Peak Hour, or both AM and PM Peak Hours; implementation of the GPU would likely contribute to a cumulative impact at these intersections. As shown in Table 4.17-10, study intersection LOS for Proposed General Plan Update conditions, with the identified improvements outlined in Mitigation Measure TRANS-1, are forecast to operate within acceptable LOS (D or better) for Proposed General Plan Update conditions. However, even though the identified improvements would result in acceptable LOS, some improvements may not be implemented for the following reasons:

- Intersections #1 and #2 are Caltrans facilities; as such, the City cannot guarantee that the identified improvements can be implemented.
- Intersection #18 has existing development on the southwest corner and northeast corner of the intersection which may preclude construction of the identified improvements.
- Intersections #20 and #23 are located partially, or entirely, within the City of Cathedral City jurisdiction and the City of Desert Hot Springs cannot guarantee installation of the improvements.

Additionally, while all roadway segments would operate at an acceptable LOS assuming expansion based on the roadway classification, given the uncertainty of timing regarding future roadway improvements, it is possible that some segments would experience unacceptable LOS prior to installation of the roadway expansion improvement. Additionally, there is also a possibility that not all identified roadway improvements would be ultimately constructed due to site specific physical constraints. Implementation of the GPU would likely in significant and unavoidable impacts at the following intersections:

- Indian Canyon Drive: 13th Avenue to 14th Avenue – (R19)
- Indian Canyon Drive: Dillon Road and 20th Avenue – (R21)
- Palm Drive: Two Bunch Palms Trail and Dillon Road – (R34)
- Palm Drive: Dillon Road and 20th Avenue – (R35)
- Palm Drive: Varner Road and I-10 Freeway – (R37)
- Mountain View Road: Hacienda Avenue and Dillon Road – (R40)
- Two Bunch Palms Trail: east of Palm Drive – (R72)

Level of Significance Before Mitigation

Potentially Significant

Mitigation Measures

Mitigation Measure TRANS-1 (listed above)

Level of Significance After Mitigation

Significant and Unavoidable

4.17.5 References

Ganddini Group, Inc., 2019. *Desert Hot Springs General Plan Update Traffic Impact Analysis,* July 8.

Ganddini Group, Inc, 2019. *Memorandum: Desert Hot Springs General Plan Update Traffic Analysis Addendum,* Novermber 22.

Terra Nova Planning and Research, Inc., 2000. *City of Desert Hot Springs Comprehensive General Plan*, Adopted September 5.

VRPA Technologies Inc., 2011. *2011 Riverside County Congestion Management Program,* December 14.

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4.18 – Tribal Cultural Resources

This section addresses potential impacts to Tribal Cultural Resources (TCR) associated with the General Plan Update (GPU). Issues of interest are impacts to Native American sites, features, places, cultural landscapes, sacred places, and objects with cultural value to Native American tribes that are identified within CEQA Guidelines: whether the Project will cause a substantial adverse change in tribal cultural resources or artifacts associated with tribal cultural resources.

4.18.1 Environmental Setting

Tribal Cultural Resources are the physical artifacts associated with the spiritual and religious lives of Native people that ties them together with their environment, each other, and their place in the universe. Refer to Section 4.5.1 (Cultural Resources) of this Draft EIR for an environmental and natural setting background of the Planning Area as it relates to tribal cultural resources.

4.18.2 Regulatory Framework

State

California Assembly Bill 52:
AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

Senate Bill (SB) 18
California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

Local

Desert Hot Springs General Plan
The Open Space and Natural Resource Element of the General Plan Update addresses Tribal Cultural Resources. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to tribal cultural resources: Open Space and Natural Resources, and Health and Wellness. Two policies are identified in this Element to maintain and enhance the tribal cultural resources of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy OS-8.5: Archaeological.
- Policy OS-8.6: Cultural Resources.

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.18.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
    ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

B. Would the project cause substantial adverse cumulative impacts with respect to tribal cultural resources?

4.18.4 Environmental Impacts

A. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Ground-disturbing activities associated with development carried out under the proposed GPU could result in damage to or destruction of Tribal Cultural Resources *as defined in Public Resources Code section 5020.1(k).* Archaeological materials associated with past occupation within the City are known to exist and have the potential to provide important cultural and scientific information.

The GPU supports development that could include but is not limited to the new construction of residential housing tracts, commercial buildings and warehouses, road improvements, and supporting infrastructure, resulting in the disturbance of soils at depths not previously disturbed by existing or past development. Additionally, much of the City and within its sphere of influence has not been formally surveyed for TCR's or archaeological resources associated with TCR's that could be lost or damaged during project construction. Failure to properly evaluate, assess, survey, and if necessary, monitor proposed development sites could result in impacts to TCRs.

The potential for uncovering significant tribal cultural resources within the GPU area during earthmoving construction activities is unknown. Nevertheless, ground-disturbing activities associated with proposed development projects within the GPU area, where excavation depths exceed those previously attained or in un-surveyed parcels, have the potential to damage or destroy TCR's or archaeological resources associated with TCR's that may be present on the surface or below the ground. The GPU has two policies (OS-8.5 Archaeological and OS 8.6 Cultural Resources) that require all properties that are being proposed for development (under the GPU) address the potential for subsurface deposits (related to TCR) and require individual cultural resource studies (including subsurface evaluations).

- **OS-8.5 Archaeological Resources -** Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.
- **OS-8.6 Cultural Resources -** Review all development and redevelopment proposals for the possibility of cultural resources. This may include the need for individual cultural resource studies, including subsurface investigations.

Additionally, projects, covered under the GPU, will comply with existing laws and regulations including AB 52 and SB 18. The City sent tribal consultation notifications to a total of seven tribal entities (see Appendix B for the Native American Contact List). Consultation requests were received from three tribal entities: The Twenty-nine Palms Band of Mission Indians, the Soboba Band of Luiseno Indians, the San Manuel Band of Mission Indians, and the Agua Caliente Band of Cahuilla Indians. Consultation has been concluded with the Soboba Band of Luiseno Indians and the San Manuel Band of Mission Indians. At the time of the release of this Draft EIR (February

14, 2020) consultation was still ongoing for the Agua Caliente Band of Cahuilla Indians and the Twenty-nine Palms Band of Mission Indians.

Potential Impacts would be less than significant.

B. Would the project cause substantial adverse cumulative impacts with respect to tribal cultural resources?

Two tribal cultural resources have been identified within the Planning Area. Pursuant to Section 15130 (b)(1) there are no proposed projects within the Planning Area that would have a cumulative impact on these two identified tribal cultural resources.

Cumulative impacts to the two known TCR's as well as any newly discovery TCR's within the Planning Area would be avoided as the General Plan Update contains goals, policies, and actions (see Table 4.0-1 and Appendix C) that address potential impacts to tribal cultural resources as specified by CEQA to incorporate both SB 18 and AB 52 consultations. As such, the Planning Area's contribution to cumulative impacts related to tribal cultural resources is less than considerable and, therefore, less than cumulatively significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

4.18.5 References

California Office of Historic Preservation. California Historical Resources; California; Historic Points of Interest (P560). https://www.oph.parks.ca.gov/Listed Resources/?view=number&criteria=560 [Accessed July 25, 2019]

City of Desert Hot Springs. General Plan Update: Open Space and Natural Resources Element (Pg. OS-26) April 2019.

City of Desert Hot Springs. 2000 General Plan: Archaeological and Historic Resource Element (Pg. IV-13). https://cdn2.hubspot.net/hubfs/4435988/pl%20General%20Plan%20(2000).pdf.

4.19 – Utilities and Service Systems

This section addresses impacts to utility services associated with the City of Desert Hot Springs General Plan Update (GPU). This section will examine issues relating to water supply and distribution, wastewater, storm water, solid waste, electricity and natural gas, and telecommunications.

4.19.1 Environmental Setting

Water Supply
Water is provided by three water suppliers in the Planning Area; Desert Water Agency (DWA), Mission Springs Water District (MSWD) and Coachella Valley Water District (CVWD). Figure 4.19-1 shows the retail service area for MSWD and CVWD; DWA does not have any retail customers in the Planning Area.

DWA serves the western portion of the Coachella Valley, including most of Palm Springs. The DWA was formed in 1961 to import water from the State Water Project in order to provide a reliable local water supply for the region. DWA provides retail water for Palm Springs and Cathedral City. Although DWA manages water supply in the Planning Area, it does not directly serve its retail customers. DWA maintains a large infrastructure system including: (1) a domestic water delivery system; (2) an irrigation water delivery system; (3) wastewater collection system; and (4) water reuse and groundwater recharge systems. The agency is responsible for water supply management (including groundwater management) within its Institutional Boundary, including the City of Desert Hot Springs and essentially all of the MSWD.

CVWD serves the southeastern portion of the Planning Area, primarily south of Dillon Road. CVWD is the largest provider of drinking water in the Coachella Valley operating more than 100 wells and serves a population of 283,000 from Cathedral City to the Salton Sea. CVWD provides water-related services for its customers in the areas of urban water supply, wastewater collection and treatment, recycled water, agricultural irrigation, drainage management, imported water supply, groundwater replenishment, stormwater management and flood control, and water conservation. Daily demand for drinking water averages 317 acre-feet. The CVWD potable water system consists of approximately 239 miles of water mains, 24 booster pumps in 11 stations, and 15 wells. Within the Planning Area, the district serves approximately 800 residents (about 2% of the Planning Area). According to the 2015 CVWD UWMP, CVWD's urban per capita water use for 2015 was 383 GPCD, 19 percent lower than its 473 Gallons Per Capita Per Day (GPCD) target for 2020. The number is relatively high due to the number of visitors and seasonal residents; the report also notes the high temperatures in the region as another reason for the relatively high-water use.

CVWD receives water from the Colorado River through the Coachella Canal. CVWD anticipates using treated canal water as an urban potable supply starting in 2025 to reduce the amount of groundwater pumping. Coachella Canal water is projected to meet 28 percent of total urban potable demand by 2040, while the rest is met by groundwater. CVWD operates five water reclamation plants with three of which generating recycled water for irrigation of golf courses, HOAs, and large landscaped areas. The other two plants serve isolated communities near the Salton Sea.

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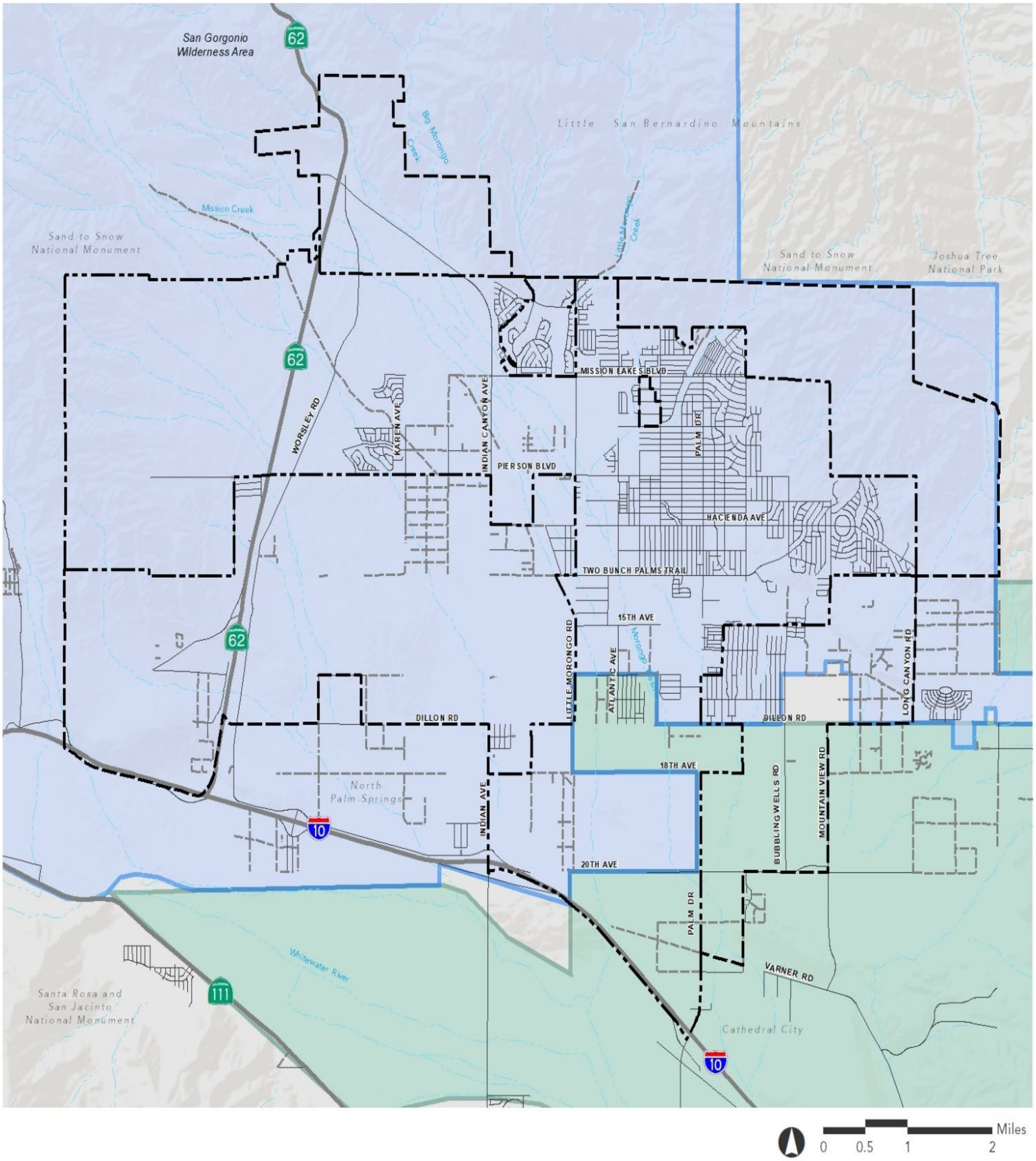

Water Districts

Mission Springs Water District

Coachella Valley Water District

Base Map Features

City Boundary

Sphere of Influence

Water Courses

Source: California Department of Water Resources, 2015.

Date: July 2019.

Exhibit 4.19-1: Water Districts

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The 2015 UWMP notes that there will be 36,300 AF of recycled water available for the service area in 2040; this is a substantial increase from 2015 (8,749 AF). CVWD anticipates a retail supply of 230,600 AFY in 2040.

MSWD provides water and wastewater services within most of the City and SOI; MSWD serves approximately 98% of the population within the Planning Area; approximately 80% of the Districts' water service area population resides inside the City of Hot Springs. MSWD is the primary retail provider in the Planning Area. MSWD currently receives 100 percent of its water supply from the Upper Coachella Valley groundwater basin via District owned and operated wells. A majority of the MSWD's Water Service Area (WSA) population resides inside the City of Desert Hot Springs. Of the 12,967 District water service connections in 2015, 12,334 are residential connections (95.1%). Of the 12,334 residential connections, 11,625 are single family (94.3%) and 709 are multi-family (5.7%). MSWD currently receives 100 percent of its water from groundwater production. CVWD and DWA are remediating the overdraft condition of the groundwater in the Upper Coachella Valley by artificial replenishment with Colorado River water. As such, some of the groundwater that is withdrawn is replaced through this process. According to the State Department of Water Resources, DWA and CVWD have a combined total SWP allotment of 194,100 AFY.

MSWD currently does not have recycled water use within their WSA, however there are plans to use recycled water primarily for the irrigation of existing and new golf courses and new developments. To produce recycled water meeting Title 22 standards, the District plans to upgrade their Horton WWTP with tertiary treatment facilities by 2025 to accommodate a recycled water demand of 2,000 AFY. The recycled water system is projected to expand to 4,500 AFY by 2040. The district plans to expand facilities to include new facilities to provide recycled water for irrigation of golf courses, parks, medians, and greenbelts. The district projects a capability of producing 6,400-acre-feet per year by 2040. Current efforts to curtail water-intensive landscaping would make the biggest impact on conservation, such as using more drought-tolerant plants and adjusting irrigation scheduling. Landscaping accounts for approximately 70 percent of domestic water use. The MSWD Strategic Plan (2017) sites the following four actions necessary to meet current and future water demand:

- Acquire new water rights;
- Expand existing water rights;
- Expand the recycled water system; and
- Develop conjunctive use/storage and recovery.

Water use estimates for the Planning Area are obtained from using MSWD 2015 UWMP per capita use rates; the MSWD numbers are used as it is the primary provider in the Planning Area. MSWD estimates are used for a few reasons: (1) they currently serve about 98% of the Planning Area; (2) the GPCD for the CVWD is very high because of the presence of tourists and partial year residents and these factors do not apply, to the same extent, within the Desert Hot Springs GPU Planning Area. The MSWD calculated the 2015 GPCD at 172.1 GPCD. For the Planning Area, with a population of 48,550, water demand is approximately 8.35 mgd or 9,350 AFY.

Similar to the remainder of the Coachella Valley, groundwater overdraft is an issue in and around the Planning Area. The groundwater basins in the Planning Area are shown in Figure 4.19-2. DWA's management of the water supply includes artificial groundwater replenishment to augment natural replenishment as part as groundwater basin management in the service area.

Groundwater replenishment is completed by using imported water from the State Water Project, exchanged for Colorado River Water supplies with The Metropolitan Water District of Southern California (MWD). DWA makes imported water available to MSWD for groundwater replenishment within MSWD's service area. The districts began recharging aquifers with Colorado River water in 2002; according to the Mission Creek-Garnet Hill Water Management Plan, that was completed in 2013, an average of 12,000 AFY has been recharged into the basin. Non-consumptive return in the Whitewater River Subbasin is estimated at between 29 and 35 percent of water produced; non-consumptive return water is returned by percolation, after use, which offsets groundwater production. DWA projects that 42,070 AF will be pumped from the basin in 2040. The DWA 2019-2020 Groundwater Replenishment and Assessment report states the following: "In conclusion, the Coachella Valley Groundwater Basin (and its subbasins) is in an overdraft condition and will most likely remain so, even with the importation and exchange of available SWP water, until a higher proportion of the maximum SWP (State Water Project) allocations become available (page II-34)."

Wastewater

Wastewater is managed by MSWD in the Planning Area although a significant percentage (about 55%) of households currently use septic tanks. Horton Wastewater Treatment Plant (Horton WWTP), located on Verbena Drive about a half mile south of Two Bunch Palms Trail, has a capacity of 2.3 million gallons per day (mgd) and it is the primary wastewater treatment facility for MSWD; the average amount of wastewater treated in 2015 was 1.69 mgd. The Desert Crest Wastewater Treatment Plant, located about a half mile southeast of the intersection of Dillion Road and Long Canyon Road, has a capacity of 0.18 mgd and serves a country club development and mobile home park. The average daily flow to the plant in 2015 was metered at 0.04 mgd. MSWD currently has 9,100 sewer connections throughout its service area; this results in an estimated 190.1 gallons per day per connection.

Historically, wastewater generated by Desert Hot Springs residents and businesses required use of septic systems for disposal. In 2019, roughly half of households in the City relied upon septic systems. Septic systems have the potential to adversely impact groundwater quality. Two assessment districts (AD11 and AD12) fund the construction of wastewater collection and treatment facilities to abate the threat septic systems pose to groundwater, and there are plans to expand capacity through development of a West Valley Water Treatment Plant (WVWTP). The construction of the plant will increase the treatment capacity up to 2.5 mgd. The new treatment would be constructed in phases with ultimate "build-out" capacity of up to 20 mgd. The new treatment plant would be constructed in conjunction with a district wide program to transition households from septic to using the sewer system and wastewater treatment plants. The first phase of expanded wastewater treatment facilities has undergone CEQA review. Although it should be noted that the full build-out was not evaluated in a recent EIR evaluating the newly proposed WVWTP (Tom Dodson and Associates 2019). The EIR notes that the facilities currently treat an average of 1.73 mgd (or 84.8 gallons per resident with an estimated service area of 20,400 residents).

Storm Water Drainage

Local drainage infrastructure is composed of a system of gutters, pipers, culverts, basins, and channels which carry storm water to regional drainage facilities. Storm water is rainwater plus debris gathered from its flow from impervious and pervious surfaces. In the desert environment, the primary goal regarding storm water control is to capture it and allow it to percolate into the local groundwater basins. A secondary and no less important goal is to protect people and properties from flooding during storm events. The Riverside County Flood Control and Water Conservation District manages regional drainage facilities with the Planning Area. The District plans, constructs, and maintains drainage facilities that convey storm flows and protect properties against flooding. The District has authority to tax and acquire land for the construction and maintenance of drainage facilities.

Solid Waste

Solid waste collection services within Desert Hot Springs are provided by contract waste haulers, Desert Valley Disposal Inc. (DVD). Desert Valley Disposal handles all standard waste, recycling, and green recycling. Desert Valley Disposal offers once per week residential services, service to all commercial and businesses within the city limits, residential and commercial recycling services, roll-off trash removal services including green waste, construction and debris collection, residential motor oil pick-up, and selected household hazardous waste (HHW) and bulky item pickup. According to CalRecycle (2019), the City of Desert Hot Springs disposed of 22,246 tons of solid waste and a total adjusted reporting-year transformation waste of 147.08 tons in the year 2017. Based on a reporting population of 29,347 in 2017, this results in a per capita disposal rates are 4.20 pounds per resident per day in the City. The Riverside County unincorporated area disposal rate is 5.6 pounds per resident per day; given a SOI population of 19,160, this results in a daily solid waste generation rate of approximately 53.6 tons (or approximately 19600 tons annually).

The County's current landfill system consists of seven landfills which are the Badlands, El Sobrante, Lamb Canyon Landfills, Blythe, Desert Center, Mecca II and Oasis Landfills. To meet future needs of Riverside County, phased expansions of the Badlands and Lamb canyon Landfills were added to the Countywide Siting Element. In 2003, Lamb Canyon was approved to increase the disposal capacity from 8.26 million tons to 13.53 million tons. Additionally, Lamb Canyon Landfill will have the potential for future expansion. In the Badlands Landfill, only 246 acres are in use, out of the 1,168 available acres (Personal communication, Fouad Mina, Riverside County 2019).

Currently, the City of Desert Hot Springs utilizes the Edom Hill Transfer Station, located east of the Planning Area. Edom Hill is a transfer station which serves as a local collection point to the final disposal site. Edom Hill Transfer Center has no limit on how many thousand pounds of solid waste per day they can receive (TPD). Lamb Canyon Landfill is operated by Riverside County. As of August 2019, the landfill permitted area is 703 aces (AC) where 145 AC are permitted for waste disposal. Lamb Canyon is permitted to receive 5,000 tons per day (TPD) and has a total capacity of 38.9 million cubic yards. As of 2015, the landfill is estimated to have a remaining capacity of 19.243 million cubic yards (49% of total capacity). Lamb Canyon Landfill is estimated to operate until 2029 at a minimum and expansion potential exist on the landfill site in the form of unpermitted waste disposal land.

According to the County of Riverside Waste Management Department Integrated Waste Management Plan: 2013 Five-Year Review Report (2013), the county or regional agency continues to have adequate disposal capacity (i.e., equal to or greater than 15 years).

Electric Power and Natural Gas

Southern California Edison (SCE) provides electric power in the Planning Area. Southern California Gas Company provides natural gas power services in the Planning Area. These service providers install and maintain mainline systems and individual customer service connections throughout the Planning Area.

Telecommunication Facilities
There are numerous providers in the Planning Area that provide telecommunication services. These providers maintain utility lines (both above and below ground along with cellular towers throughout the Planning Area).

4.19.2 Regulatory Framework

Federal

Clean Water Act (CWA): The CWA is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the Federal CWA.

National Pollution Discharge Elimination System (NPDES): This is a program created for consistency with the Clean Water Act. The Act prohibits discharging “pollutants” through a “point source” into a “water of the United States” unless they have an NPDES permit. The permit contains limits on what can be discharged, creates monitoring and reporting requirements, and other provisions to ensure the discharge does not diminish water quality and/or people’s health.

State

California Safe Drinking Water Act: The Safe Drinking Water Act (SDWA), administered by EPA in coordination with the California Department of Public Health (CDPH), is the main Federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

California Department of Resources, Recycling, and Recovery (CalRecycle): CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016 (see below).

Assembly Bill 939 (AB 939) (Public Resources Code 41780): The California Integrated Waste Management Act Requires cities and counties to prepare integrated waste management plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the IWMP. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Senate Bill (SB) 1016: requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality’s IWMP. The CalRecycle Board reviews a jurisdiction’s diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element every two years.

Senate Bills 610 and 221, Water Supply Assessment and Verification. Senate Bills (SB) 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (water supply assessment or WSA) to be provided to city and county decision-makers prior to approval of specified large development projects (projects greater than 500 dwelling units, or an equivalent water demand). Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in the environmental document for certain projects, as defined in Water Code 10912, subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. General plans, such as the City of Burlingame General Plan, do not require their own WSAs, but individual future projects under the General Plan and subject to SB 610 and SB 221 will require WSAs.

Statewide Water Conservation Act of 2009 (Senate Bill X7-7): In November 2009, the California State legislature passed, and the Governor approved, a comprehensive package of water legislation, including Senate Bill (SB) X7-7 addressing water conservation. In general SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim 10 percent target in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their Urban Water Management Plans (UWMPs). SB X7-7 also requires certain agricultural water supplies to implement a variety of water conservation and management practices and to submit Agricultural Water Management Plans.

State Water Resources Control Board. The SWRCB, in coordination with nine Regional Water Quality Control Boards, performs functions related to water quality, including issuance and oversight of wastewater discharge permits (e.g., NPDES), other programs regulating stormwater runoff, and underground and above-ground storage tanks. The SWRCB has also issued statewide waste discharge requirements for sanitary sewer systems, which include requirements for development of a sewer system management plan (SSMP).

Title 22 of California Code of Regulations: Title 22 regulates the use of reclaimed wastewater. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping, and other non-agricultural irrigation. Regulation of reclaimed water is governed by the nine RWQCBs and the California Department of Public Health (CDPH).

Urban Water Management Planning Act: In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet (AF) annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an urban water management plan at least once every five years and submit it to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the urban water management plan (UWMP) is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

Local

Whitewater River Watershed Storm Sewer System (MS4) Permit. The Riverside County Flood Control and Water Conservation District and the County of Riverside are the Principal Permittee of the Whitewater MS4 Permit; Desert Hot Springs is a permittee under the current permit (Order No. R7-2013-0011). In order to comply with the updated MS4 Permit, "Low Impact Development" standards and policies were developed. These include land development policies pertaining to LID and hydromodification for new development and significant redevelopment projects. The MS4 Permit also contains requirements that are necessary to improve efforts to reduce the discharge of pollutants in stormwater runoff to the maximum extent practicable and achieve water quality standards. The stormwater management programs have been guided by the following principles:

1) Utilize existing municipal departments/programs to meet Permit requirements whenever possible.
2) Minimize duplication of effort through coordinated Permittee compliance actions.
3) When necessary, develop new or enhanced stormwater management programs that are both cost-effective and acceptable to the public.

The MS4 permit requires developments and redevelopments The BMPs that are required include the following programs:

- Litter, debris and trash control
- Incident response investigation and reporting
- New development and redevelopment
- Private construction activities
- Permittee activities (for sewage, streets and roads, and MS4 facilities)
- Public education and outreach
- Implementation of Total Maximum Daily Loads
- Reporting Requirements and Notifications

Riverside Countywide Integrated Waste Management Plan: Pursuant to AB939, the County prepared the 1996 Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The CIWMP, is comprised of five key elements, the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE) and the Non-Disposal Facility Element (NDFE).

- Countywide Summary Plan: The Countywide Summary Plan contains goals and policies, as well as a summary of issues faced by the County and its cities. The Summary Plan provides steps needed for all cities to do to meet the 50% division mandate.
- Countywide Siting Element: The Siting Element provides evidence that there is at least 15 years of remaining capacity to hold waste for the County and its cities. If there is not adequate capacity, the Siting Element contains discussion of alternative disposal sites and additional diversion programs.

- Source Reduction and Recycling Element (SRRE): The SRRE provides analysis of the local waste stream to determine where to focus diversion efforts.
- Household Hazardous Waste Element (HHWE): The HHWE details programs that assist in recycling, treatment and disposal practices for Household Hazardous Waste programs.
- Non-Disposal Facility Element (NDFE): The NDFE goal is to identify existing and proposed waste management facilities that would require a solid waste permit to be operationally compliant.

West Desert Hot Springs Master Drainage Plan Drainage in the Planning Area is managed by the West Desert Hot Springs Master Drainage Plan to manage flood hazards; the City of Desert Hot Springs is the lead agency. The plan includes regional flood-control improvements for Morongo Wash and Mission Creek, local drainage facilities, and regional flood hazard mapping and floodplain management measures. Local drainage improvements—funded via assessments and other sources—will be constructed as parcels are developed or as the adjacent street system is constructed. Regional facilities include earthen levees, groundwater recharge basins, and all-weather bridges.

Mission Springs Water District 2015 Urban Water Management Plan. The 2015 UWMP shows stages of actions under drought and other water shortage scenarios. The following actions are taken depending on the severity of the drought:

- Voluntary conservation (Stage 1)
- Mandatory Compliance (Stage 2)
    - Limiting exterior irrigation
    - Commercial and industrial facilities provide plans to MSWD to limit water use
    - Nighttime irrigation for schools and golf courses, along with filling of public swimming pools
    - Limiting washdown in impervious areas
    - Limiting vehicle washing
- Mandatory Conservation Measures (Stage 3)
    - "Watering of parks, school grounds, golf courses, lawn watering, landscape irrigation, washing down of driveways, parking lots or other impervious surfaces, washing of vehicles, except when done by commercial car wash establishments, using only recycled or reclaimed water, filling or adding water to swimming pools, wading pools, spas, ornamental ponds, fountains and artificial lakes are prohibited" (MSWD 2016).
    - No new construction meters issued
    - Commercial nurseries cannot water plants

Additionally, MSWD, in accordance with SB 610 and SB 221, requires large developments to prepare of a water supply assessment and/or water supply verification to evaluate adequate water supplies are available to meet the proposed development's demand. Generally, if adequate water supplies are not available, either growth is curtailed, or additional supplies are acquired to meet growth.

Desert Hot Springs Municipal Code: The City Council of the City of Desert Hot Springs has determined that in order to protect the public health, safety, welfare and environment, reduction goals related to solid waste and the stream of solid waste were necessary. Title 8, (Health and Safety), Chapter 8.08 (Recycling and Diversion of Waste from Construction and Demolition) requires a minimum 50 percent diversion of construction, for all new projects to submit a construction and demolition waste plan and submit a recycling and waste reduction form.

Desert Hot Springs General Plan: The Mobility and Infrastructure, Land Use and Community Design, Open Space and Natural Resource, and Safety and Noise Elements of the General Plan Update addresses utilities. Several policies are identified in these Elements to maintain and enhance the visual character of the Planning Area as well as reduce potential impacts related to implementation of the GPU:

- Policy LU-1.1: Balanced Growth
- Policy LU-2.9: Residential Master Plan Communities.
- Policy LU-3.11: Efficiency in Providing City Services and Infrastructure.
- Policy LU-9.1: Public Services.
- Policy LU-13.11: Natural Landforms.
- Policy MI-5.5: Green Streets.
- Policy MI-11.1: Infrastructure Service.
- Policy MI-11.5: Development Impacts.
- Policy MI-11.11: Reduce Energy.
- Policy MI-11.13: Infrastructure Planning.
- Policy MI-11.14: Wastewater Services Consultation.
- Policy MI-11.15: Wastewater.
- Policy MI-11.16: Septic Tank Removal.
- Policy OS-3.1: Water Conservation.
- Policy OS-3.2: Water Conservation Incentives.
- Policy OS-3.5: Water District Consultation.
- Policy OS-3.6: Landscaping.
- Policy OS-3.7: Gray Water.
- Policy OS-3.8: Recycled Water.
- Policy OS-3.9: Groundwater Contamination.
- Policy OS-3.10: Site Drainage.
- Policy OS-5.1: Recycling Services.
- Policy OS-5.2: Waste Reduction.
- Policy OS-7.3: Drought-Tolerant Landscaping.
- Policy SN-6.6: Utilities and Vital Service Providers.
- Policy SN-7.1: Flood Control Improvements.
- Policy SN-7.3: Coordination.
- Policy SN-7.4: Master Drainage Plan
- Policy SN-7.7: Hydrological Studies

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.19.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), the General Plan Update could result in a significant impact if it:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

B. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

C. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

D. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

E. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

F. Would the project cause substantial adverse cumulative impacts with respect to utilities and service systems?

4.19.4 Environmental Impacts

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The GPU includes the potential for substantial population growth resulting from future residential, commercial and industrial development. This growth would require the expansion of existing infrastructure along with the likely development of new facilitates related to utility infrastructure. This GPU does not include any specific proposals for new facilities, although new facilities would result from the projected population growth associated with the plan. All future infrastructure projects subject to CEQA would be required to undergo environmental review with respect to their discrete impacts at the time of their proposal.

Water: The implementation of the GPU would likely result in both new and expanded water supply and distribution facilities. As discussed above, these projects would be required to undergo environmental review at the time of their proposal. The population projection for the Planning Area in 2040, under the GPU, is 136,402. Under the GPU in 2040, it is anticipated that 12,779 (approximately 9%) of the Planning Area would be served by CVWD while the remainder (123,623) would be served by MSWD. The MSWD 2015 UWMP assumes the per capita gallons per day rate would be reduced to 164.5 GPCD. This would result in approximately 20.3 mgd (or approximately 22,800 AFY) in consumption. The MSWD anticipates a supply of 19,000 AFY in 2040 (according to the 2015 UWMP); the is about 3,800AF above anticipated supply. It is possible that demand will be less due to increased conservation (see below). Regardless, current projections suggest a water supply deficiency towards the end on the 2040 planning horizon.

The CVWD has a much higher per capita use (383 GPCD) within their service area. As discussed above, this has a lot to do with the number of partial year residents (who are not included in the per capita calculation bus still consume water), and the large tourism and hospitality industry. Because of this, it is likely that this factor would overestimate the amount of water use associated with single and multi-family dwellings, as anticipated under the GPU. As such, the MSWD load factor (164.5 GPCD) is used for this calculation resulting in 2.1 mgd or approximately 2,400 AFY. CVWD anticipates a supply availability of 230,600 AF in 2040 serving an overall population of about 527,000. Overall, the Planning Area portion (approximately 2% in 2040) of the CVWD is relatively small compared to the entire district. As such, it is difficult to access the overall ability of the CVWD system to provide for the GPU. Regardless, the increase in water demand within the Planning Area is substantial. Future projections do account for the availability of recycled water. Also, the Planning Area will continue to have access to imported water (via the Colorado River) due to water exchanges with MWD. Additionally, development projects will continue to provide "will serve" letters from the providing utility. For parcels that currently obtain water by wells, the GPU supports the transition to utility-provided water.

Conservation efforts that reduce the overall demand for water can contribute greatly to the long-term sustainability of the City's water supply. GPU Policy OS-3.1: Water Conservation requires water conservation efforts consistent with CalGreen TierOne standards; this effort would reduce the PCGD in the Planning Area. GPU Policy OS-3.2: Water Conservation Incentives encourages residents and businesses to conserve water through incentive programs. Additionally, the policy would also create penalties for wasteful practices. GPU Policy OS-3.5: Water District Consultation encourages the City to consult with MSWD to plan water conservation efforts, including the future development and expansion of water recycling and re-use. GPU Policy OS-7.3: Drought Tolerant Landscapes and GPU Policy OS-7.4: Street Trees ensure that future development and streetscapes will require desert appropriate species that use less water. In addition, the MSWD requires large developments to complete a Water Supply Assessment (WSA); this includes cannabis cultivation projects located in the Planning Area.

Regardless, the anticipated growth under the GPU is substantial and will require additional water resources and the incorporation of widespread conservation efforts. Additionally, the water use projection is greater than the supply shown in the MSWD UWMP for 2015. The impacts with respect to water are potentially significant.

Wastewater: Overall, the proposed GPU would result in new and expanded wastewater treatment facilities. Currently, there are a substantial number of households not connected to the municipal sewer system. MSWD is in the process of transitioning these households to the sewer system while also planning to expand wastewater treatment facilities. Using the current MSWD per capita wastewater generation rate of 84.8 gpd. The projected population for the Planning Area in 2040 is 136,142 people. If all of the Planning Area was transitioned to sewer systems at this time, the amount of wastewater treatment capacity necessary for the area would be 11.54 mgd. This amount in in excess of the current capacity but within the overall projected build out of the proposed WVWTP (20.0 mgd.). Future development within the Planning Area would require expanded wastewater facilities to meet the demand from anticipated population growth. To fund the level of infrastructure, MSWD charges $2,520 for new sewer hook-ups for single family dwellings and $2,020 for multi-unit dwellings. The impact of the GPU on wastewater services is less than significant.

Storm Water: Development within the Planning Area would result in an increase in impermeable surfaces leading to the potential for increased stormwater runoff. The City's municipal code (13.08.100 New development and redevelopment) requires stormwater to be managed on-site by the following techniques (1) increase permeable areas; (2) direct run-off to permeable areas; and (3) Maximize Stormwater Storage for Reuse. Further GPU Policies SN 7.1: Flood Control Improvements and SN 7.4: Master Drainage Plan requires developer to consider drainage and flooding concerns as well as coordinate with neighbors on these issues. Additionally, the City is a co-permittee on the Whitewater River Watershed Storm Sewer System (MS4) Permit which requires BMPs (shown above) to minimize the impact of new developments and re-developments in the Planning Area. Funding for stormwater management is based on Benefit Assessment Units (BAU); a 1/6-acre lot is the equivalent to one BAU. One BAU requires an annual payment of $3.63. Overall, the impact on storm water due to development under the GPU is less than significant due to existing regulations, permits and proposed GPU policies.

Electric Power, Natural Gas and Telecommunications: There are no plans to relocate or expand electric power, natural gas and telecommunication facilities. However, implementation of the GPU would lead to demand driven expansion of facilities and, subsequently, the possibility of physical environmental impacts covered under CEQA. These projects would be subject to environmental review at the time of proposal. These facilities are provided by private organizations and the infrastructure would be covered by service fees. The impact is less than significant.

Level of Significance Before Mitigation:

Potentially significant with respect to water supply facilities.

Mitigation Measures:

Mitigation Measure ULT-1: Developments, under the GPU, that will be served by local utility providers, will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent UWMP.

Level of Significance After Mitigation:

Less than significant.

B. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The availability of water supplies is discussed in the previous section 4.19(a). Overall, the GPU is anticipated to require more water that is currently identified in the most recent MSWD UWMP. This shortfall is anticipated to occur towards the end of the planning horizon. As discussed above, further conservation efforts and/or increased supply (from recycled water or other sources) may account for the anticipated growth. Regardless, impacts to water supply are potentially significant.

Level of Significance Before Mitigation:

Significant.

Mitigation Measures:

With the inclusion of **MM-UTL-1**, the impact would be reduced to less than significant.
Level of Significance After Mitigation:

Less than significant.

C. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As mentioned in above in 4.19(a)., the development of the West Valley Water Reclamation Facility will help to increase the capacity at the Horton Wastewater Treatment Plant (Horton WWTP) by diverting a portion of the existing served areas to the proposed WVWRF. The new WVWRP facilities will be developed to accommodate future expansions and upgrades to produce effluent to meet recycled water standards, when proposed by MSWD. Doing so will maximize future water resources within the MSWD service area by providing a source of water that can be directly used to offset potable water demand for landscape irrigation within the District's service area (Dodson, 2019). The WVWRF will be designed with the possibility to scale up to 20 mgd; Planning Area-wide generation rates, as shown in 4.19(a) would result in 11.54 mgd of wastewater (within the WVWRF buildout capacity of 20 mgd). Additionally, the City would like to increase use of recycled water for golf courses, parks and cannabis cultivation.

The City will continue to coordinate and encourage efforts for production and use of recycled water to increase water supply and conservation. The City has proposed policies (Policy MI-14 Wastewater and MI-15 Wastewater Service Consultation) to require developers to consult with providers regarding adequate supply and pay their share of costs for localized wastewater infrastructure upgrades to ensure that service levels are met.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

D. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Under the GPU, the Planning Area is expected to accommodate more residential, commercial, mixed use, industrial, public uses, and open space/recreation land uses. In order to estimate solid waste generation under the GPU, per-capita waste generation rates for the City of Desert Hot Springs and unincorporated Riverside County were used (pounds per day per resident). In 2040, the Planning Area is projected to have a population of 136,402. The net new amount of waste generated annually within the City in 2040 (88,476 residents X 4.2 lbs. per person per day) would be approximately 371,600 pounds per day (or approximately 68,000 tons per year.) The population is anticipated to be 47,926 in the SOI resulting in the following waste generation rate:

(47,926 X 5.6 lbs per day = 268,386 lbs per day or approximately 49,000 tons per year). Combined, the Planning Area is anticipated to generate 117,000 tons per year of solid waste.

This is likely the worse-case scenario as per-capita waste generation rates are expected to decline with the implementation of various solid waste management practices discussed below. The City, working with a private provider, will continue to implement a variety of solid waste reduction, recycling, and reuse measures to meet the Cities obligation under AB 939. These efforts will be coordinated with waste management programs; therefore, future landfill diversion rates may improve. Additionally, it is anticipated that programs and policies will reduce the amount of solid waste that is generated. For example, Policy MI-11.12: *Minimize Solid Waste Streams,* aims to reduce the solid waste stream taken to landfills through recycling efforts, waste diversion, and zero-waste programs. Additionally, Policy MI-11.5: *Development Impacts,* requires new development, intensification of existing developments, and annexations to disclose and adequately mitigate for impacts on utility services.

The City of Desert Hot Springs will continue to implement a variety of solid waste reduction, recycling and reuse measures, in accordance with its obligation under AB 939 and in cooperation with waste management programs administered by the Riverside County through CWIMP. Additionally, the Desert Hot Springs Municipal Code Title 8 Chapter 8.08 provides framework to help the City meet its goals of reduction of solid waste and the solid waste stream. In 2017, Desert Hot Springs participated in 38 diversion programs such as composting, managing construction and demolition waste, public education, recycling, source reduction and special waste materials. Implementation of these policies and programs will further reduce the amount of waste produced by the City and SOI and reduce the impact to less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

E. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Any future project completed under the proposed General Plan Update would be required to comply with all applicable Federal, State, and Local statues and regulations related to solid waste management and reduction.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

F. Would the project cause substantial adverse cumulative impacts with respect to utilities and service systems?

Development that results from the proposed GPU, in combination with other cumulative development in neighboring areas would increase the demand for utilities. Utilities can be potentially impacted by increased population, especially when new facilities are not built to meet population increases or when existing facilities are not adequately maintained. Alternatively, impacts may also occur when new facilities are built, resulting in physical impacts to existing resources. Overall, the GPU accounts for both these scenarios. The GPU policies to mitigate potential negative environmental impacts. Additionally, new facilities are subject to both the provisions of the GPU and compliance with CEQA, when required. Environmental review would identify site-specific conditions and physical changes resulting from utility services expansion. Typical impacts associated with new facilities include short-term construction activities related to air quality pollutant emissions, temporary traffic detours, changes in traffic distribution, and noise.

Regardless, it has been identified that water supply may not be adequate for the full implementation of the GPU.

Level of Significance Before Mitigation:

Potentially significant.

Mitigation Measures:

With the inclusion of **MM-UTL-1**, the impact would be reduced to less than significant.

Level of Significance After Mitigation:

Less than Significant.

4.19.5 References

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4.20 – Wildfire

This section describes the potential for wildfire on lands located in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones by the California Department of Forestry and Fire Protection (CAL FIRE). In addition, it discusses potential impacts of the proposed General Plan Update (GPU) on wildfire hazards.

4.20.1 Environmental Setting

Climate
The Planning Area is located in the western portion of the Coachella Valley and maintains a subtropical desert climate characterized by hot summers and mild winters. The mean annual temperature in the Coachella Valley is 74 degrees Fahrenheit (F) although temperature extremes can range from the mid-twenties to over 120 degrees F. The Coachella Valley is nestled into the western edge of the Colorado Desert and experiences limited rainfall with an annual average precipitation between two and four inches that generally occurs during the winter months but can be influenced by summer monsoonal thunderstorms off the Gulf of Mexico. The Planning Area tends to be cooler than the rest of the Valley due to its higher elevation at the foothills of the San Bernardino and Little San Bernardino Mountains.

Wind Patterns
High winds can cause property damage and pose health risks. Mid-February to early July are the windiest months in the Planning Area, while mid-July to early February are calmer. Prevailing winds in the region vary seasonally with westerlies dominant in the winter, southerlies in the spring, easterlies in the summer, and northerlies in the fall. In addition to the typical regional wind patterns in the region, Santa Ana winds represent a particularly strong, dry wind hazard. Santa Ana winds are a katabatic wind, meaning they develop as winds descend through mountain passes where they accelerate, dry out, and heat up. The geography of the Planning Area creates such a wind funnel at the mouth of the Coachella Valley through the San Gorgonio Pass. They can occur anytime between September and May but are a particular wildfire hazard during fall months that follow summer droughts. Desert Hot Springs is located closer to the San Gorgonio Pass than other Coachella Valley cities and is highly susceptible to these high wind episodes.

Wildland Urban Interface and Fire Hazards Severity Zones
The Wildland Urban Interface (WUI) is the transition zone between natural communities and developed areas. Communities in WUI lands are particularly susceptible to catastrophic wildfire risk. In Riverside County, wildland fires historically have occurred in the brush-covered hills that frame many communities. CAL FIRE prepares maps that identify Fire Hazard Severity Zones (FHSZs). FHSZ maps are utilized in the building codes for areas located in the WUI and requirements for defensible space clearing are incorporated in the GPU goals and policies (GPU, Safety and Noise Element). Locally, FHSZ maps show that some hills surrounding the northern portion of the Planning Area have a high or very high fire hazard (Exhibit 4.20.1. Wildfire Map).

State Responsibility Areas
State Responsibility Areas (SRA) designate those areas where CAL FIRE has responsibility for wildland fire protection. SRAs do not include lands that are within city boundaries or within federally owned lands. SRAs are present in the northern and western portions of the Planning Area (Exhibit 4.20.1); these areas fall within the State's Riverside Operational Unit.

4.20.2 Regulatory Framework

State

California Fire Code: The City of Desert Hot Springs has adopted the 2016 California Fire Code (California Building Standards Commission 2016), with amendments to address specific local conditions and needs (Desert Hot Springs Municipal Code Chapter 15.24). These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. Specifications are described for exterior materials and construction methods for structures located in WUI lands. These regulations pertain to any new building located within a Local Resource Agency (LRA) very high FHSZ or within a SRA moderate, high, or very high FHSZ.

Local

Riverside County General Plan (2016): Applicable to the Sphere of Influence portions of the Planning Area, includes policies in its Safety and Noise Element designed to minimize potential natural disasters such as wildfire. This General Plan contains policies to direct growth away from high fire risk areas and provide tools to inform construction and development.

Building Code and Performance Standards:

- S 5.1 Develop and enforce construction and design standards that ensure that proposed development incorporates fire prevention features through the following:
    - a) All proposed development and construction within Fire Hazard Severity Zones shall be reviewed by the Riverside County Fire and Building and Safety departments.
    - b) All proposed development and construction shall meet minimum standards for fire safety as defined in the Riverside County Building or County Fire Codes, or by County zoning, or as dictated by the Building Official or the Transportation Land Management Agency based on building type, design, occupancy, and use.
    - c) In addition to the standards and guidelines of the California Building Code and California Fire Code fire safety provisions, continue to implement additional standards for high-risk, high occupancy, dependent, and essential facilities where appropriate under the Riverside County Fire Code (Ordinance No. 787) Protection Ordinance. These shall include assurance that structural and nonstructural architectural elements of the building will not impede emergency egress for fire safety staffing/personnel, equipment, and apparatus; nor hinder evacuation from fire, including potential blockage of stairways or fire doors.
    - d) Proposed development and construction in Fire Hazard Severity Zones shall provide secondary public access, in accordance with Riverside County Ordinances.
    - e) Proposed development and construction in Fire Hazard Severity Zones shall use single loaded roads to enhance fuel modification areas, unless otherwise determined by the Riverside County Fire Chief.

f) Proposed development and construction in Fire Hazard Severity Zones shall provide a defensible space or fuel modification zones to be located, designed, and constructed that provide adequate defensibility from wildfires.

- S 5.2 Encourage continued operation of programs for fuel breaks, brush management, controlled burning, revegetation and fire roads.
- S 5.3 Monitor fire-prevention measures (such as fuel reduction) through a site-specific fire-prevention plan to reduce long-term fire risks in the Very High Fire Hazard Severity Zones.
- S 5.4 Limit or prohibit development or activities in areas lacking water and access roads.
- S 5.5 Encourage proposed development in Fire Hazard Severity Zones to develop where fire and emergency services are available or planned.
- S 5.6 Demonstrate that the proposed development can provide fire services that meet the minimum travel times identified in Riverside County Fire Department Fire Protection and EMS Strategic Master Plan.
- S 5.7 Minimize pockets of flammable vegetation that increase likelihood of fire spread through conceptual landscaping plans to be reviewed by Planning and Fire Departments in the Fire Hazard Severity Zones. The conceptual landscaping plan of the proposed development shall at a minimum include:

    a) Plant palette suitable for high fire hazard areas to reduce the risk of fire hazards.

    b) Retention of existing natural vegetation to the maximum extent feasible.

    c) Removal of onsite combustible plants.

- S 5.8 Design to account for topography of a site and reduce the increased risk from fires in the Fire Hazard Severity Zones located near ridgelines, plateau escarpments, saddles, hillsides, peaks, or other areas where the terrain or topography affect its susceptibility to wildfires by:

    a) Providing fuel modification zones with removal of combustible vegetation but minimizing visual impacts and limiting soil erosion.

    b) Replacing combustible vegetation with fire resistant vegetation to stabilize slopes.

    c) Submitting topographic map with site specific slope analysis.

    d) Submitting erosion and sedimentation control plans.

    e) Providing a minimum 30 foot of setback from the edge of the fuel modification zones.

    f) Minimizing disturbance of 25% or greater natural slopes.

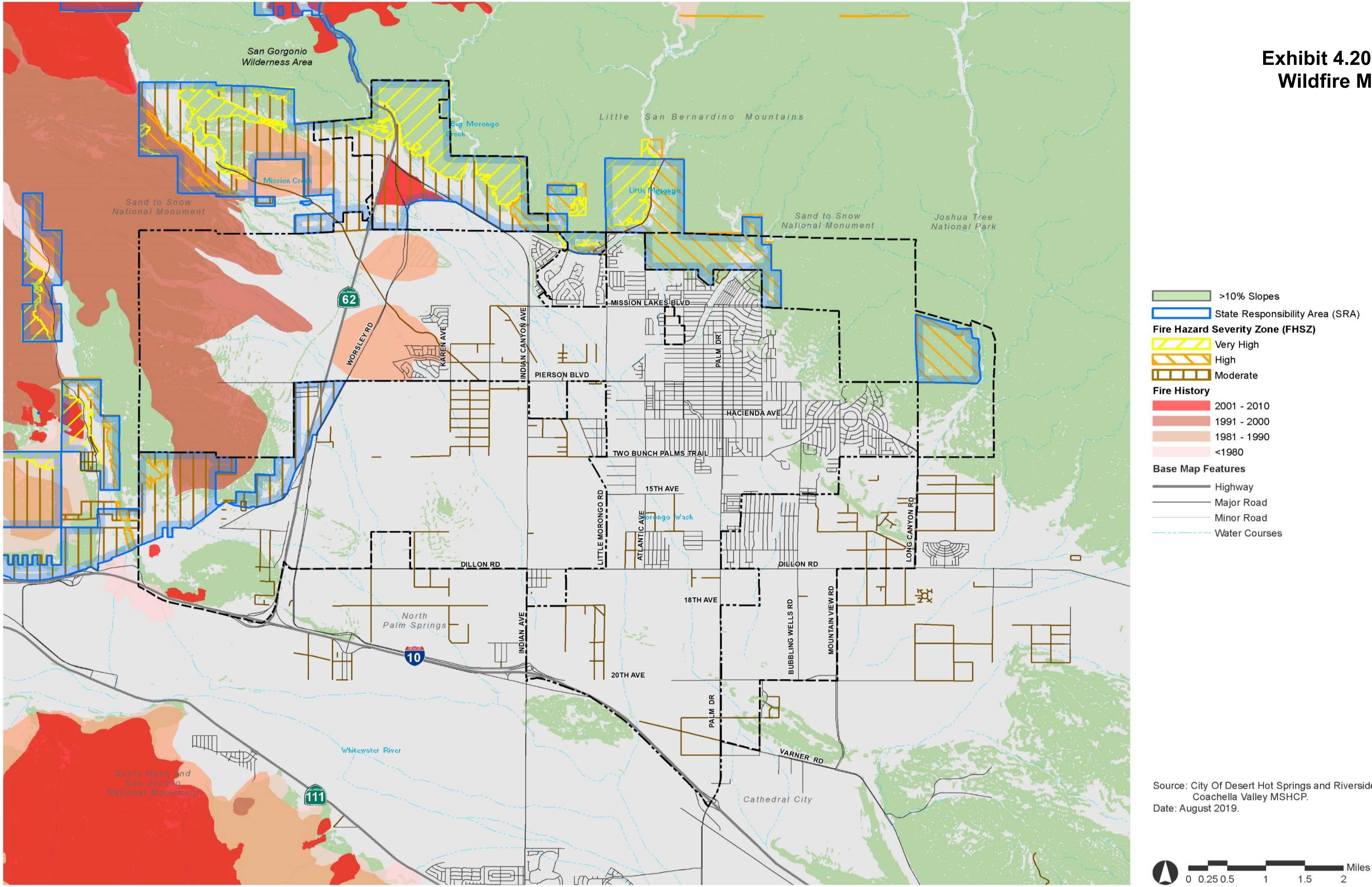
Wind-Related Hazards:

- S 5.9 Reduce fire threat and strengthen fire-fighting capability so that the County could successfully respond to multiple fires.
- S 5.10 Require automatic natural gas shutoff earthquake sensors in high-occupancy industrial and commercial facilities and encourage them for all residences.
- S 5.11 Utilize ongoing brush clearance fire inspections to educate homeowners on fire prevention tips by implementing annual countywide weed abatement program.

Long-Range Safety Planning:

- S 5.12 Conduct and implement long-range fire safety planning, including stringent building, fire, subdivision, and municipal code standards, improved infrastructure, and improved mutual aid agreements with the private and public sector.
- S 5.13 Develop a program to utilize existing reservoirs, tanks, and water wells in the county for emergency fire suppression water sources.
- S 5.14 Periodically review inter-jurisdictional fire response agreements, and improve firefighting resources as recommended in the Riverside County Fire Department Fire Protection Plan and EMS Strategic Master Plan to keep pace with development, including construction of additional high-rises, mid-rise business parks, increasing numbers of facilities housing immobile populations, and the risk posed by multiple ignitions, to ensure that
  a) Fire reporting and response times do not exceed the goals listed in the Riverside County Fire Department Fire Protection Plan and EMS Strategic Master Plan identified for each of the development densities described.
  b) Fire flow requirements (water for fire protection) are consistent with Riverside County Ordinance 787.
  c) The planned deployment and height of aerial ladders and other specialized equipment and apparatus are sufficient for the intensity of development desired.
- S 5.15 Continue to utilize the Riverside County Fire Department Fire Protection Plan and EMS Strategic Master Plan as the base document to implement the goals and objectives of the Safety Element.
- S 5.16 Encourage property owners to utilize clustering and Transfer of Development Rights (TDR) program when developing lands within Fire Hazard Severity Zones by:
  a) Restricting the development of a property through placement of conservation easement.
  b) Acquiring the conservation easements similar to that of MSHCP Program.
- S 5.17 Identify, map, and update on an as-needed continual basis, the Fire Hazard Severity Zone maps.
- S 5.18 Ensure that the Fire Department has appropriate municipal staffing and fire protection planning staff that meet the needs of development pressure and adequately respond to long range fire safety planning.
- S 5.19 Implement a coordination program with fire protection and emergency service providers to reassess fire hazards after wildfire events and to adjust fire prevention and suppression needs, as necessary.
- S 5.20 Implement a regional coordination program to increase support for coordination among fire protection and emergency service providers.
- S 5.21 Implement a long-term training and education program among government agencies and communities about fire protection.

Exhibit 4.20-1: Wildfire Map



Source: City Of Desert Hot Springs and Riverside County, Coachella Valley MSHCP.
Date: August 2019.

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Riverside County Fire Department (RCFD): RCFD has a cooperative agreement with CAL FIRE to bring Fire and Emergency Services to the City of Desert Hot Springs. The Riverside County Fire Department also operates the Community Emergency Response Team (CERT) program. The Program trains and certifies members of the public in basic emergency response and organizational skills, including light fire suppression, hazardous materials awareness, first aid, light search and rescue techniques, and disaster response assistance.

County of Riverside Multi-Hazard Functional Plan (1998): The plan addresses response to extraordinary emergency situations associated with natural and human caused disasters, technological incidents and national security operations. Individuals and departments assigned emergency responsibilities within this Plan will have prepared appropriate supporting plans and related Standard Operating Procedures. The concepts in this plan focus on potential large-scale disasters that pose major threats to life and property and impact the well-being of large numbers of people. Within the Planning Area, the Multi-Hazard Function Plan identifies transportation-caused fires along I-10 as areas of particular fire potential. In addition, "shake roofs" are a noted hazard in the area, particularly during times of strong Santa Ana winds.

Desert Hot Springs 2007 Emergency Operations Plan (EOP): The EOP is designed to establish the framework for implementation of the California Standardized Emergency Management System (SEMS). It establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements for the City. The EOP is intended to facilitate multi-agency and multi-jurisdictional coordination, particularly between the City of Desert Hot Springs and Riverside County.

Desert Hot Springs Municipal Code: The City's Municipal Code identifies areas that require specific changes in and variations from the 2016 California Fire Code as the result of local climatic, geological, and topographical conditions (Desert Hot Springs Municipal Code Chapter 15.24). These changes amend codes pertaining to building guidelines such as fire hydrant clearance/spacing, sprinkler system flow/duration, and various other authority responsibilities.

Desert Hot Springs General Plan

The Safety and Noise Element of the General Plan Update addresses wildfire. However, policies that guide the City's evaluation of development proposals and inform CEQA as they relate to scenic resources, visual character, and light and glare are addressed in the following elements: Land Use and Community Development, Mobility and Infrastructure, Open Space and Natural Resources, and Health and Wellness. Several policies (listed below) are identified in these Elements that address wildfire and are designed to reduce hazards associated with wildfire.

- Policy SN-1.1: Police and Fire Protection.
- Policy SN-1.2: Level of Service.
- Policy SN-1.3: New Development Impacts.
- Policy SN-1.4: Existing Development Proposal Review.
- Policy SN-1.5: Vehicle Access.
- Policy SN-1.6: Sufficient Water Fire Flows.
- Policy SN-1.7: Adequate Fire Resources.
- Policy SN-1.8: Fire Enforcement.
- Policy SN-1.9: Onsite Wildfire Prevention Measures.
- Policy SN-1.10: Fire Department Inspections.

- Policy SN-1.11: Fire Suppression Systems.
- Policy SN-1.12: National Fire Guidelines.
- Policy SN-1.13: Consistent Level of Service as City Grows.
- Policy SN-1.14: Additional Fire Station.
- Policy SN-1.15. Fire Department Review.
- Policy SN-1.16: Minimize Development in Severity Zones
- Policy SN-1.17: Essential Public Facilities.
- Policy SN-1.18: Government Code.
- Policy SN-1.19: Fire Safe Regulations.
- Policy SN-1.20: Building and Fire Codes.
- Policy SN-1.21: Fire Protection Plan.
- Policy SN-1.22: Fire Risk Pre-Plans.
- Policy SN-1.23: Roadside Fuel Reduction Plan.
- Policy SN-1.24: Defensible Space Clearances.
- Policy SN-1.25: Non-Conforming Development.
- Policy SN-1.26: At-Risk Occupants.
- Policy SN-7.1: Flood Control Improvements.
- Policy SN-7.4 Master Drainage Plan.

These policies are shown in full, in Table 4.0-1 in Section 4.0. A comprehensive list of the GPU goals and policies are also provided in Appendix C.

4.20.3 Thresholds of Significance

The methodology used to evaluate potential environmental impacts is described in Section 4.0. As identified in Appendix G of the Guidelines for Implementation of CEQA, the General Plan Update has the potential to result in significant impacts if the following thresholds are exceeded.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

A. Substantially impair an adopted emergency response plan or emergency evacuation plan?

B. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

C. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

D. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

E. Would the project cause substantial adverse cumulative impacts with respect to wildfire?

4.20.4 Environmental Impacts

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

A. Substantially impair an adopted emergency response plan or emergency evacuation plan?

SRAs and very high fire severity zones are present in the northern and western portions of the Planning Area (Exhibit 4.20.1). The City has adopted a policy to maintain and update the City's EOP to stay current with staffing and technical capabilities of the City and cooperating agencies. Implementation of the GPU would require the City to comply with policies within the Safety and Noise Element relating to the goal of providing a high level of fire protection services for the community, and adequately addressing wildfires. In addition to the policies proposed in the GPU, Riverside County and City of Desert Hot Springs have incorporated building codes to safeguard against fires.

The City will coordinate with appropriate agencies for the establishment of emergency evacuation routes and plans to preserve or reestablish the use of Palm Drive, Mission Lakes Boulevard, Pierson Boulevard, Dillon Road, Hacienda Avenue, Interstate 10, and State Highway 62 as emergency evacuation routes. For more information on adopted emergency response plans or evacuation plans, see section 4.9 Hazards and Hazardous Materials.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

B. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Steep slopes (>10%) and very high fire severity zones are present in the northern and western portions of the Planning Area, as shown on Exhibit 4.20.1. The City has adopted policies to safeguard against wildfires in these areas. For example, the Fire Marshal will review development plans, and future projects will require special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exist, specifically hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, or excessively dry brush (Policies SN-1.9 Onsite Wildfire Prevention Measures, SN-1.10 Fire Department Inspections, and SN-1.16 Fire Department Review). Compliance with proposed GPU policies and city guidelines will reduce these impacts to a level of less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

C. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

SRAs and very high fire severity zones are present in the northern and western portions of the Planning Area as shown on Exhibit 4.20.1. Within these areas, implementation of the GPU may include the extension/installation, utilities, roads and other infrastructure facilities, fire breaks around new buildings and maintenance of existing roads in accordance with City policies (SN-1.23 Fire Risk Pre-Plans, SN-1.24 Roadside Fuel Reduction Plan). Any new installation or maintenance of infrastructure or utilities will undergo a permitting and review process pursuant to CEQA. That environmental review would identify site-specific conditions and physical changes resulting from project-related impacts that would also be required to comply with the GPU policies. Compliance with the above-mentioned GPU policies and City guidelines will reduce impacts to less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

D. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

SRAs and very high fire severity zones are present in the northern and western portions of the Planning Area as shown on Exhibit 4.20.1. Wildfire Map. The City has adopted policies and included a policy in the GPU to expand the Desert Hot Springs Master Drainage Plan to address drainage and flooding concerns related to development within the Mission Creek and Morongo Wash drainage areas (SN-7.4 Master Drainage Plan). The City will coordinate with developers and property owners to plan and fund flow control improvements, as well as promote more resilient land uses in floodplains (SN-7.1 Flood Control Improvements). Implementation of the GPU may result in significant risk as a result of runoff or post-fire slope instability. Compliance with proposed GPU policies and city guidelines will reduce these impacts to a level of less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

E. Would the project cause substantial adverse cumulative impacts with respect to wildfire?

The GPU provides policies to mitigate potential negative environmental impacts related to wildfire. Compliance with the proposed GPU policies in the Safety and Noise Element, in addition to Riverside County and City of Desert Hot Springs codes, policies, and guidelines will safeguard against cumulative risks.

Additionally, new facilities are subject to both the provisions of the GPU and compliance with CEQA, when required. Environmental review would identify site-specific conditions and physical changes resulting from GPU implementation. As development projects related to GPU implementation would result in reduced long-term wildfire risk, cumulative impacts would be less than significant.

Level of Significance Before Mitigation:

Less than significant.

Mitigation Measures:

No mitigation is required.

4.20.5 References

California Building Standards Commission. 2016. California Fire Code. California Code of Regulations Title 24, Part 9.

CalFire, 2019. Fire Hazard Severity Zones Maps, https://osfm.fire.ca.gov/media/5912/desert_hot_springs.pdf [Accessed July 20, 2019]

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County of Riverside, 1998. Multi-Hazard Functional Plan.

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5.0 – Alternatives

CEQA Guidelines Section 15126.6 requires an EIR to *"describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."* The section also states that *"the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the project objectives, or would be more costly."*

Pursuant to CEQA Guidelines Section 15126.6, this section describes three alternatives to the Desert Hot Springs General Plan Update, including the CEQA-mandated "No Project" Alternative, and compares the impacts of each alternative to the General Plan Update. This section describes the ability of the alternatives to meet the basic project objectives, and the "environmentally superior" alternative among the three is identified.

5.1 Rationale For Alternative Selection

In accordance with CEQA Guidelines Section 15126.6(a), an EIR does not need to evaluate every conceivable alternative. A feasible range of alternatives has been evaluated that allows decision makers to make a reasoned choice and that meet most of the project objectives. The project objectives included in Section 3, Project Description, are:

1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.
3) Expand and diversify housing opportunities throughout the community.
4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
6) Protect the natural habitat, open spaces, and desert washes within the community.
7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
8) Expand park facilities and recreational programming opportunities throughout the community.
9) Promote the community's role as a health and wellness destination.

5.2 Alternatives Considered

The three alternatives evaluated are:

- Alternative 1: No Project/Existing 2000 General Plan
- Alternative 2: Twenty Percent Reduced Build
- Alternative 3: Reduced Residential

In accordance with CEQA Guidelines Section 15126.6(d), the discussion of impacts of the alternatives is less detailed than the evaluation included in Sections 4.1 through 4.20 of the impacts associated with implementation of the GPU. Table 5-1 shows the development assumptions of each alternative. Table 5-2 shows how impacts associated with the implementation of the alternatives compare to the impacts associated with implementation of the Project; the reader is advised to refer to the accompanying text for a fuller explanation.

Table 5-1:
Land Use Alternatives

Land Use	Existing Conditions	Net Change			
		Project	Alternatives		
			No Project/Existing 2000 General Plan	Reduced Build	Reduced Residential
Residential (units)	19,100	+34,564	+31,406	+23,831	+14,149
Population	48,550	+87,852	+73,583	+60,572	+35,990
Non-Residential Building (SF)	3,214,266	+17,135,438	+13,206,635	+13,065,497	+17,135,439
Employees	5,182	+15,349	+11,937	+11,243	+14,971
Motels/Hotels (rooms)	755	+897	+844	+567	+897
Source: MIG, 2019					

5.3 Alternative 1: No Project/Existing 2000 General Plan

5.3.1 Principal Characteristics

The No Project/Existing 2000 General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only development anticipated under the 2000 General Plan. Development assumptions for this alternative are shown in Table 5-1. Additionally, no new policies or goals associated with the General Plan Update would be implemented; the standards, goals and policies associated with the 2000 General Plan would be applicable.

Table 5-2:
Alternatives' Impacts Compared to Project Impacts

	Alternative 1: No Project/2000 General Plan	Alternative 2: Reduced Build	Alternative 3: Reduced Residential
Aesthetics	Reduced LTS	Reduced LTS	Reduced LTS
Agriculture and Forestry Resources	Similar no impact	Similar no impact	Similar no impact
Air Quality	Reduced SU	Reduced SU	Reduced SU
Biological Resources	Similar LTS	Similar LTS	Reduced LTS
Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Energy	Reduced LTS	Reduced LTS	Reduced LTS
Geology and Soils	Similar LTS	Similar LTS	Similar LTS
Greenhouse Gas Emissions	Reduced SU	Reduced SU	Reduced SU
Hazards and Hazardous Materials	Similar LTS	Similar LTS	Similar LTS
Hydrology and Water Quality	Similar LTS	Similar LTS	Similar LTS
Land Use	Similar LTS	Similar LTS	Similar LTS
Mineral Resources	Similar LTS	Similar LTS	Reduced LTS
Noise	Reduced SU	Reduced SU	Reduced SU
Population and Housing	Reduced LTS	Reduced LTS	Reduced LTS
Public Services	Reduced LTS	Reduced LTS	Reduced LTS
Recreation	Reduced LTS	Reduced LTS	Reduced LTS
Transportation	Reduced SU	Reduced SU	Reduced SU
Tribal Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Utilities and Service Systems	Reduced LTS	Reduced LTS	Reduced LTS
Wildfire	Similar LTS	Similar LTS	Similar LTS
Source: MIG, 2019 LTS= Less-than-Significant Impacts SU= Significant and Unavoidable Impacts			

5.3.2 Analysis of No Project/Existing 2000 General Plan Alternative

The potential impacts associated with the No Project Alternative are described below.

a. Aesthetics. The No Project Alternative assumes the amount of development would be reduced compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under the No Project Alternative. The 2000 General Plan generally identifies the San Jacinto, San Bernardino and other mountain ranges surrounding and encompassing the City, and the desert floor, as scenic resources. The 2000 General Plan includes several goals and policies regarding protection of scenic resources that would applicable under this alternative. The location and size of signs are strictly regulated by Chapter 17.45 of the City's Municipal Code in order to avoid detracting from the scenic views and vistas. The City's Zoning Ordinance limits billboard signs to commercial land use districts. The 2000 General Plan includes several policies to address community cohesion and project design. Outdoor lighting is regulated by 17.40.140 of the City's Municipal Code. Any new development under the No Project Alternative would be required to undergo design review, which would ensure compliance with regulations and review for potential light and glare. This alternative would result a reduced less-than-significant impact, when compared to the Project, given the reduction in development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. As described in Section 4.3, the Project would result in a significant unavoidable air quality impact. While the No Project alternative would decrease the amount of development when compared to the Project, this alternative would likely not be consistent with SCAG forecasts for Desert Hot Springs as it exceeds the 2016 RTP/SCS population projections for the City of Desert Hot Springs; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). Given the overall reduction in non-residential square footage (commercial, office, and industrial) combined with a reduction in residential units, air emissions associated with the alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project but still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for twenty-five special status plant species and thirty-five special status wildlife species. While the amount of development under this alternative would be reduced, this alternative would require mitigation measures similar to those identified for the Project. Biological Resources impacts under this alternative would be similar to the Project.

e. Cultural Resources. As with the Project, development under the No Project Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. Policies from the existing General Plan require that development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, to be evaluated by a qualified professional and, if necessary, incorporate mitigation measures into project approvals. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

f. Energy. As with the Project, development associated with the No Project Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project. Potential impacts would be less than significant for the Project and this alternative.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future project would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. As such, the No Project Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with this alternative would be reduced due to the decrease in development, it is likely that mitigation measures identified for the Project would also be required for this alternative. Given the reduction in development associated with this alternative, GHG emissions associated with this alternative would be reduced compared to the Project, but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the No Project Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review as well as hazardous materials policies included in the existing General Plan. This alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the No Project Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and development increase that would be less than the Project; however, the mitigation measure regarding water supply would still be required under this alternative. The No Project Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the No Project Alternative would not physically divide an established community. Development would be consistent with the adopted 2000 General Plan, and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. In the northern portion of the Planning Area, there is one known deposit which contains an abandoned concrete mill. Much of this area already contains residential development while the northern portion of the PCC deposit along Little Morengo Creek is just outside of the Planning Area. The existing General Plan identifies these areas as open space or low density residential. As with the Project, this alternative would result in a similar less-than-significant mineral resources impact.

m. **Noise.** The Project would result in significant unavoidable noise impacts. The No Project Alternative would result in less development than the Project. Under this alternative, measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development the traffic noise impact would be reduced but would still be considered significant and unavoidable.

n. **Population and Housing.** This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. **Public Services.** This alternative would result in a reduced amount of development and related population and employment growth, which would result in less demand for public services compared to the Project. However, it is likely that the fire service mitigation measures identified for the Project would be required for this alternative. This alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. **Recreation.** This alternative would result in a reduced amount of development and associated population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. **Transportation.** This alternative would result in less development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that some of intersections that were impacted by the Project would not be impacted under this alternative. However, similar to the project, significant and unavoidable intersection and roadway segment impacts, as well as a significant impact to a CMP highway, would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project but would still be significant and unavoidable.

r. **Tribal Cultural Resources.** As with the Project, development under the No Project Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to existing General Plan policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

s. **Utilities and Service Systems.** This alternative would result in a reduced amount of development and associated population and employment growth, which would result in less demand for utilities services compared to the Project. While this alternative assumes a population and housing increase that would be less than the Project, the mitigation measure regarding water supply would still be required under this alternative. This alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. **Wildfire.** Very high fire severity zones are present in the northern and western portions of the Planning Area. The existing General Plan policies, including identifying special on-site fire protection measures during project review, would be applicable. Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

Attainment of Project Objectives
The No Project Alternative assumes a continuation of the existing 2000 General Plan. As this alternative would result in a reduction in the amount of development, and would not include any of the updated goals and policies included in the GPU, it would generally meet the following project objectives, but not at the same level as the Project:

1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.
3) Expand and diversify housing opportunities throughout the community.
4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
6) Protect the natural habitat, open spaces, and desert washes within the community.
7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
8) Expand park facilities and recreational programming opportunities throughout the community.
9) Promote the community's role as a health and wellness destination.

5.4 Alternative 2: Twenty Percent Reduced Build

5.4.1 Principal Characteristics
The Twenty Percent Reduced Build (Reduced Build) alternative assumes that overall development associated with the Project would be reduced by twenty percent. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative. Development assumptions for this alternative are shown in Table 5-1.

5.4.2 Analysis of the Twenty Percent Reduced Build (Reduced Build) Alternative
The potential impacts associated with the Reduced Build Alternative are described below.

a. **Aesthetics.** The Reduced Build Alternative assumes the amount of development would be reduced compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under this alternative. To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City, while requiring preservation of natural habitat and desert washes in the selection of building sites. In accordance with GPU proposed policies, the City would coordinate with adjacent jurisdictions that are part of the viewshed regarding development standards for hillsides and ridgelines. The location and size of signs are strictly regulated by Chapter 17.45 of the City's Municipal Code in order to avoid detracting from the scenic views and vistas. This alternative would result a reduced less-than-significant impact, when compared to the Project, given the reduction in development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. The Project would result in a significant unavoidable air quality impact. While the Reduced Build Alternative would decrease the amount of development when compared to the Project, this alternative would likely not be consistent with SCAG forecasts for Desert Hot Springs as it exceeds the 2016 RTP/SCS population projections for the City of Desert Hot Springs; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). Given the overall reduction in non-residential square footage (commercial, office, and industrial) combined with a reduction in residential units, air emissions associated with the alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project, but would still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for twenty-five special status plant species and thirty-five special status wildlife species. While the amount of development under this alternative would be reduced, this alternative would require mitigation measures similar to those identified for the Project. Biological Resources impacts under this alternative would be similar to the Project.

e. Cultural Resources. As with the Project, development under the Reduced Build Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, development under this alternative would not result in a substantial adverse change in the significance of a historical resource because they are currently protected under both existing and proposed policies. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations and the proposed General Plan Update policies.

f. Energy. As with the Project, development associated with the Reduced Build Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All applicable GPU policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Build Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with the alternative would be reduced due to the decrease in development, it is likely that mitigation measures identified for the Project would also be required for this alternative. Given the reduction in development associated with this alternative, the GHG emissions significant impacts associated with the Project would be reduced under this alternative but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the Reduced Build Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review, which would include identification of any contaminated sites. The Reduced Build Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the Reduced Build Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and development increase that would be less than the Project; however, the mitigation measure regarding water supply would still be required under this alternative. The Reduced Build Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the Reduced Build Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. In the northern portion of the Planning Area, there is one known deposit which contains an abandoned concrete mill. Much of this area already contains residential development while the northern portion of the PCC deposit along Little Morengo Creek is just outside of the Planning Area. The GPU identifies these areas as open space, low density residential, or rural residential uses. As with the Project, this alternative would result in a similar less-than-significant mineral resources impact.

m. Noise. The Project would result in significant unavoidable noise impacts. The Reduced Build Alternative would result in less development than the Project. Under this alternative, mitigation measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development the traffic noise impact would be reduced but would likely still be significant and unavoidable.

n. Population and Housing. This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. Public Services. This alternative would result in a reduced amount of development, and population and employment growth, which would result in less demand for public services compared to the Project. However, it is likely that the fire service mitigation measures identified for the Project would be required for this alternative. This alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. Recreation. This alternative would result in a reduced amount of development and population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. Transportation. This alternative would result in less development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that some of intersections that were impacted by the Project would not be impacted under this alternative. However, similar to the project, significant and unavoidable intersection and roadway segment impacts, as well as a significant impact to a CMP highway, would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project.

r. Tribal Cultural Resources. As with the Project, development under the Reduced Build Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to GPU policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on tribal cultural resources with adherence to existing regulations.

s. Utilities and Service Systems. This alternative would result in a reduced amount of development and population and employment growth, which would result in less demand for utilities services compared to the Project. While this alternative assumes a population and housing increase that would be less than the Project, the mitigation measure regarding water supply would still be required under this alternative. This alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. Wildfire. Very high fire severity zones are present in the northern and western portions of the Planning Area. The GPU includes several policies to address fire hazards, including that the Fire Marshal will review development plans, and future projects will require special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exist (policies SN-1.9, SN-1.10, SN-1.16). Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

<u>Attainment of Project Objectives</u>

The Reduced Build Alternative assumes a general twenty percent reduction of development within the Planning Area when compared to the Project. Additionally, goals and policies within the GPU would be applicable to this alternative. This alternative would generally meet the following project objectives, similar to the Project:

> 5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
>
> 6) Protect the natural habitat, open spaces, and desert washes within the community.
>
> 7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
>
> 9) Promote the community's role as a health and wellness destination.

Given the reduction in development associated with this alternative, the Reduced Build Alternative would attain the following objective, but not to the same degree as the Project would:

> 1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
>
> 2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.
>
> 3) Expand and diversify housing opportunities throughout the community.
>
> 4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
>
> 8) Expand park facilities and recreational programming opportunities throughout the community.

5.5 Alternative 3: Reduced Residential

5.5.1 Principal Characteristics

The Reduced Residential Alternative assumes that residential development would be restricted to areas included in already approved Specific Plans or urbanized areas that include existing infrastructure. This would result in a substantial reduction in residential and population growth; non-residential and hotel/motel development would be similar to the Project. Exhibit 5-1 shows the areas where residential development would be excluded. Table 5-1 shows the development associated with this alternative. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative.

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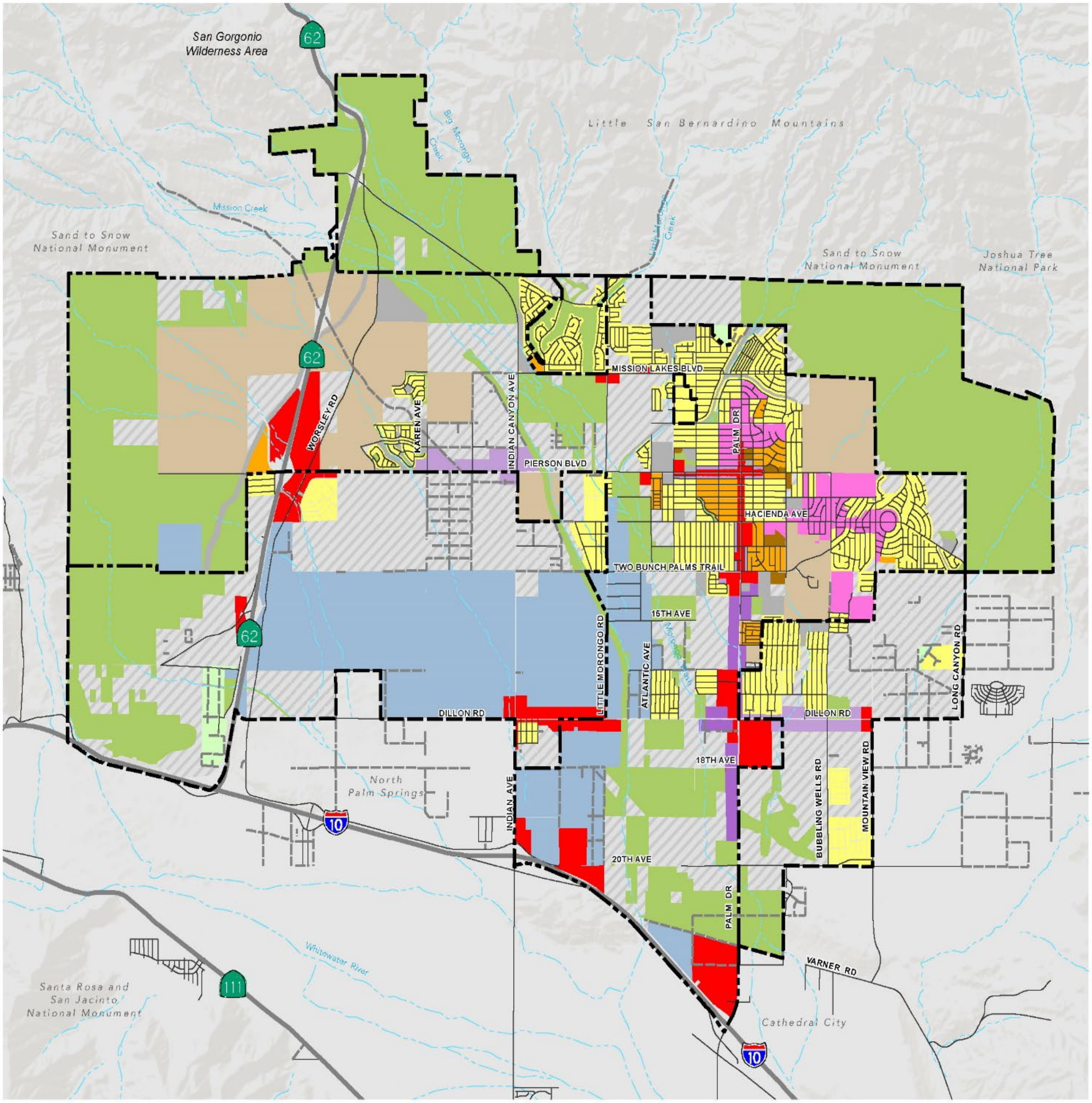

Land Use Designations

- R-RD: Residential Rural Desert (1 DU/5 AC)
- R-L: Residential Low (Up to 6.0 DU/AC)
- R-M: Residential Medium (Up to 20.0 DU/AC)
- R-H: Residential High (15.1-30.0 DU/AC)
- R-SP: Residential Specific Plan
- C: Commercial (0.30 FAR)
- V-S: Visitor-Serving/Residential
- MU-N: Mixed-Use Neighborhood (15 DU/AC)
- MU-C: Mixed-Use Corridor (30 DU/AC)
- I: Industrial: (0.60 FAR)
- OS: Open Space
- P: Public/Institutional
- No Build

Miles
0 0.5 1 2

Source: City of Desert Hot Springs and Riverside County.

Date: July 2019.

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

Exhibit 5-1: Alternative 3: Reduced Residential

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5.5.2 Analysis of the Reduced Residential Alternative

The potential impacts associated with the Reduced Residential Alternative are described below.

a. Aesthetics. The Reduced Residential Alternative assumes the amount of development would be reduced compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under this alternative. To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City, while requiring preservation of natural habitat and desert washes in the selection of building sites. In accordance with GPU proposed policies, the City would coordinate with adjacent jurisdictions that are part of the viewshed regarding development standards for hillsides and ridgelines. The location and size of signs are strictly regulated by Chapter 17.45 of the City's Municipal Code in order to avoid detracting from the scenic views and vistas. This alternative would result a reduced less-than-significant impact, when compared to the Project, given the reduction in development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. The Project would result in a significant unavoidable air quality impact. While the Reduced Residential Alternative would decrease the amount of residential development when compared to the Project, this alternative would not be consistent with SCAG forecasts for Desert Hot Springs as it exceeds the 2016 RTP/SCS population and employee projections for the City of Desert Hot Springs; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). While there is no reduction non-residential square footage, when combined with a reduction in residential units, air emissions associated with the alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project, but would still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for twenty-five special status plant species and thirty-five special status wildlife species. This alternative would require mitigation measures similar to those identified for the Project. However, compared to the Project, this alternative would result in significant reduction in the amount of land identified for residential development (shown in Figure V-1). As such, the less-than-significant Biological Resources would be reduced compared to the Project.

e. Cultural Resources. As with the Project, development under the Reduced Residential Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, development under this alternative would not result in a substantial adverse change in the significance of a historical resource because they are currently protected under both existing and proposed policies. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations and the proposed General Plan Update policies.

f. Energy. As with the Project, development associated with the Reduced Residential Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All applicable GPU policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Residential Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with the alternative would be reduced due to the decrease in residential development, it is likely that mitigation measures identified for the Project would also be required for this alternative. While the GHG emissions significant impacts associated with the Project would be reduced under this alternative but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the Reduced Residential Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review, which would include identification of any contaminated sites. The Reduced Residential Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the Reduced Residential Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and housing increase that would be less than the Project; however, the mitigation measure regarding water supply would still be required under this alternative. The Reduced Residential Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the Reduced Residential Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. In the northern portion of the Planning Area, there is one known deposit which contains an abandoned concrete mill. Much of this area already contains residential development while the northern portion of the PCC deposit along Little Morengo Creek is just outside of the Planning Area. The GPU identifies these areas as open space, low density residential, or rural residential uses. Under this alternative, no new residential uses would be permitted adjacent to this deposit as residential development would be restricted to urban areas with existing infrastructure. As such, this alternative would result in a reduced less-than-significant mineral resources impact compared to the project.

m. Noise. The Project would result in significant unavoidable noise impacts. The Reduced Residential Alternative would result in less development than the Project. Under this alternative, measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development, the traffic noise impact would be reduced but would likely still be significant and unavoidable.

n. Population and Housing. This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. Public Services. This alternative would result in a reduced amount of development, and population and employment growth, which would result in less demand for public services compared to the Project. However, it is likely that the fire service mitigation measures identified for the Project would be required for this alternative. This alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. Recreation. This alternative would result in a reduced amount of residential development and population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. Transportation. This alternative would result in less residential development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that some of intersections that were impacted by the Project would not be impacted under this alternative. However, similar to the project, significant and unavoidable intersection and roadway segment impacts, as well as a significant impact to a CMP highway, would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project.

r. Tribal Cultural Resources. As with the Project, development under the Reduced Residential Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to GPU policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on tribal cultural resources with adherence to existing regulations.

s. Utilities and Service Systems. This alternative would result in a reduced amount of development and population and employment growth, which would result in less demand for utilities services compared to the Project. While this alternative assumes a population and housing increase that would be less than the Project, the mitigation measure regarding water supply would still be required under this alternative. This alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. Wildfire. Very high fire severity zones are present in the northern and western portions of the Planning Area. The GPU includes several policies to address fire hazards, including that the Fire Marshal will review development plans, and future projects will require special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exist (policies SN-1.9, SN-1.10, SN-1.16). Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

Attainment of Project Objectives
The Reduced Residential Alternative assumes a reduction in residential development population growth within the Planning Area, but a similar level of non-residential growth as associated with the Project. This alternative assumes GPU goals and policies would be applicable. It would generally meet the following project objectives, similar to the Project:

> 5) Strengthen the community's resilience and preparedness against natural and human-induced hazards, climate change, and other potential disasters.
>
> 6) Protect the natural habitat, open spaces, and desert washes within the community.
>
> 7) Plan and provide a transportation system that meets the needs of the community, while providing mobility options, complete street approaches, and safer streets for pedestrians.
>
> 9) Promote the community's role as a health and wellness destination.

Given the reduction in development associated with this alternative, the Reduced Residential Alternative would attain the following objective, but not to the same degree as the Project would:

> 1) Allow for clear and flexible developments to allow for a range of residential, commercial, and industrial opportunities.
>
> 3) Expand and diversify housing opportunities throughout the community.
>
> 4) Foster growth of the economic base of the community and the provision of commercial services and amenities, as well as pursue more sustainable revenue sources for government services.
>
> 8) Expand park facilities and recreational programming opportunities throughout the community.

As the Reduced Residential Alternative would not allow new residential development (which has not been previously identified in an adopted Specific Plan) to occur in areas that does not have existing infrastructure, this alternative would not meet the following project objectives:

> 2) Create complete neighborhoods for new and established residential areas with connections to retail and commercial services, public amenities and services, transportation services, and parks and recreation facilities.

5.6 Environmentally Superior Alternative
Alternative 3, Reduced Residential, would result in the least adverse environmental impacts and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in Table 5-2 and the analysis within this section. However, this alternative would not fully meet the objectives at the same level as the Project.

6.0 – CEQA Conclusions

As required by CEQA, this section discusses the following types of impacts that could result from implementation of the General Plan Update: growth-inducing effects, significant unavoidable adverse impacts and significant irreversible environmental changes. Cumulative impacts and effects found not to be significant are analyzed in each of the 20 topical issue areas of this EIR (See Sections 4.1 through 4.20)

6.1 Growth-Inducing Impacts

CEQA Guidelines Section 15126.2(e) states that an EIR shall: "*Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment….It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."* Implementation of the General Plan Update (GPU) would foster economic growth, resulting in population growth and the construction of additional housing units and non-residential development within the Planning Area.

The GPU includes proposed land use changes that would allow for an increase of residential, industrial and commercial uses in Desert Hot Springs and the Sphere of Influence (SOI). As shown in Table 3-2, included in Section 3, Project Description, implementation of the GPU allows for the following net new development: 53,664 dwelling units, 20,349,704 building square feet of non-residential uses, and 1,652 hotel rooms.

New development could result in an estimated 136,402 residents, and 20,531 employees within the Planning Area. The City is expected to grow in population from 29,390 in 2018, to 88,476 by 2040, representing an increase of 201%. Population growth in the General Plan exceeds the projected population growth forecast produced by SCAG. During the same period, SCAG estimates approximately a doubling of the 2018 population of 29,390 to 58,900 by 2040. Implementation of the General Plan Update would result in the addition of planned housing units, which would help meet the anticipated regional housing demand. Growth within the Planning Area would generate jobs and revenue. Anticipated population and employment growth would happen throughout the Planning Area.

Although the GPU would result in a substantial increase in growth as compared to SCAG projections, such growth would occur within the policy framework of the General Plan Update which has been developed to support such growth. Potential impacts of the GPU have been evaluated in each of the 20 topical areas included in the EIR and, except for the air quality, greenhouse gas, noise and traffic impacts cited in section 6.2 below are either less than significant or less than significant with the application of mitigation measures. The increase in growth by itself does not result in any additional adverse impacts.

6.2 Significant Unavoidable Adverse Impacts

CEQA Guidelines Section 15126.2(c) requires that the EIR discuss "*significant environmental effects which cannot be avoided if the proposed project is implemented*." Significant unavoidable impacts are those that could not be reduced to less-than-significant levels by feasible mitigation measures. The General Plan Update would result in potentially significant unavoidable impacts to Air Quality, Greenhouse Gas Emissions, Noise, and Transportation and Traffic. The CEQA impacts are summarized in Table 6.0-1. An in-depth discussion of the significant and unavoidable impacts, and why such impacts cannot be mitigated, are included in the following sections: Air Quality (4.3), Greenhouse Gas Emissions (4.8), Noise (4.13), and Transportation and Traffic (4.17).

Table 6-1
Significant and Unavoidable Adverse Impacts

	Description
Air Quality	(1) Conflict with or obstruct implementation of the applicable air quality plan. (2) A cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (The increases would relate to the following pollutants: ROG, NOx, CO, PM_{10}, and $PM_{2.5}$.)
Greenhouse Gas Emissions	(3) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (4) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases.
Noise	(5) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The impact is related to increased noise as a result of increased traffic throughout the Planning Area.
Transportation and Traffic	(6) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The impacts are related to intersections that are outside of the jurisdiction of the City or intersections where intersection improvements may not be feasible due to local constraints.

6.3 Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(d) requires that an EIR also discuss *"significant irreversible environmental changes which would be caused by the proposed project should it be implemented."*

The General Plan Update would commit future generations to an increase in development expanse and intensity in the Planning Area. Given the significant private investments associated with these changes, and the anticipated lifetime of these improvements, these changes would not likely be reversed or significantly beyond the planning horizon of 2040. Development allowed by the GPU would irreversibly develop large portions of vacant land throughout the planning area. Additional public services will need to be built to serve the growing population. These services include parks, housing, schools, and fire and police services. To keep pace with this development, materials and energy resource demands for construction, transportation of people and goods, heating, ventilation and air conditioning, lighting, would impact air quality and greenhouse gas emissions thresholds and other associated development needs. EIR sections 4.3 Air Quality, 4.6, Energy, and 4.8 Greenhouse Gas Emissions discuss the cumulative environmental impacts from the large-scale development allowed under the General Plan Update.

The project supports higher density and mixed-use development that could reduce vehicle miles traveled (VMT) for the population. Utility and energy resources in the planning area would need to expand to meet the changes in population growth envisioned by the General Plan Update. There will be an increased reliance on solar and renewable energy sources.

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7.0 – Preparation Team

7.1 Lead Agency

City of Desert Hot Springs
65950 Pierson Blvd.
Desert Hot Springs, California 92240
760-329-6411

Chuck Maynard, City Manager
Rebecca Deming, Community Development Director

7.2 Consultants to the Lead Agency

Land Use and Planning & Environmental Review

Moore-Iacofano-Goltsman, Inc.
537 S. Raymond Avenue
Pasadena, California 91105
626-744-9872

Laura Stetson, Principal
Bob Prasse, Director of Environmental Services
Jose Rodriguez, Project Manager
Jon Campbell, Senior Biologist and GIS Specialist
Bill Spain, Senior Environmental Planner
Chris Dugan, Senior Air Quality and Noise Specialist
Phillip Gleason, Air Quality and Noise Specialist
Cameron Hile, Senior Analyst
Everett Louie, Environmental Planner
Erica Rippe, Environmental Planner
Amy Paulson, Senior Environmental Planner

Ganddini Group, Inc.
550 Parkcenter Dr #202
Santa Ana, California 92705
714-795-3100

Giancarlo Ganddini, Principal

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Appendix A - Notice of Preparation (NOP)

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Peter Aldana
Riverside County
Assessor-County Clerk-Recorder
2724 Gateway Drive
Riverside, CA 92507
(951) 486-7000
www.riversideacr.com

Receipt: 19-237667

Product	**Name**	**Extended**
FISH	CLERK FISH AND GAME FILINGS	$0.00
	# Pages	18
	Document #	E-201900892
	Filing Type	8
Total		$0.00
Change (Cash)		$0.00

8/5/19 3:47 PM
Gateway Clerk

STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
ENVIRONMENTAL FILING FEE CASH RECEIPT

Receipt #: 19-237667

State Clearinghouse # (if applicable):

Lead Agency: CITY OF DESERT HOT SPRINGS *Date:* 08/05/2019

County Agency of Filing: RIVERSIDE *Document No:* E-201900892

Project Title: CITY OF DESERT HOT SPRINGS GENERAL PLAN UPDATE

Project Applicant Name: CITY OF DESERT HOT SPRINGS *Phone Number:* (760) 329-6411

Project Applicant Address: 65950 PIERSON BOULEVARD, DESERT HOT SPRINGS, CA 92240

Project Applicant: LOCAL PUBLIC AGENCY

CHECK APPLICABLE FEES:

- ☐ *Environmental Impact Report*
- ☐ *Negative Declaration*
- ☐ *Application Fee Water Diversion (State Water Resources Control Board Only)*
- ☐ *Project Subject to Certified Regulatory Programs*
- ☐ *County Administration Fee* $0.00
  - ☐ *Project that is exempt from fees (DFG No Effect Determination (Form Attached))*
  - ☐ *Project that is exempt from fees (Notice of Exemption)*

Total Received $0.00

Signature and title of person receiving payment: [signature] Deputy

Notes:

ACR 533 (Est. 12/2013)

FILED/POSTED

County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder
E-201900892
08/05/2019 03:47 PM Fee: $ 0.00
Page 1 of 18

Removed: By: Deputy

NOTICE OF PREPARATION

DATE: August 5, 2019

TO: Responsible Agencies, Trustee Agencies, and Interested Parties

LEAD AGENCY: City of Desert Hot Springs
Contact: Rebecca Deming
65950 Pierson Boulevard
Desert Hot Springs, CA. 92240

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update[1]

NOTICE OF PREPARATION REVIEW PERIOD: August 6 to September 5, 2019

The City of Desert Hot Springs (City) will be the Lead Agency and will prepare a Draft Environmental Impact Report (DEIR) pursuant to the California Environmental Quality Act (CEQA) for the proposed General Plan Update (described below). We are interested in your agency's views as to the appropriate scope and content of the DEIR's environmental information pertaining to your agency's statutory responsibilities related to the project. We will need the name of a contact person for your agency. For interested individuals, we would like to be informed of environmental topics of interest to you regarding the project.

The City has already determined that an EIR is required for the proposed General Plan Update and, and as permitted by CEQA Guidelines Section 15060(d) (Preliminary Review), the City will not prepare an Initial Study for the project.

The proposed project, its location, and its potential environmental effects are described below. The City welcomes public input during the Notice of Preparation (NOP) review period. Due to the time limits mandated by the CEQA Guidelines, your response must be sent ***not later than 30 days after your receipt of this notice***. If no response or request for additional time is received by the end of the review period, the City may presume that you have no response.

[1]Per Title 14, California Code of Regulations, California Environmental Quality Act (CEQA) Guidelines, Sections 15082(a), 15103, and 15375

Please send your comments to:

Rebecca Deming, Community Development Director
City of Desert Hot Springs
65950 Pierson Blvd.
Desert Hot Springs, CA. 92240
(760) 329-6411

To allow for mailing, receipt, and 30-day review of this NOP, the comment period closes on **September 5, 2019**.

Rebecca Deming,
Community Development Director
(760) 329-6411

August 5, 2019
Date

Scoping Meeting

Pursuant to CEQA Guidelines Section 15082(c) (Notice of Preparation and Determination of Scope of EIR), the City will conduct a scoping meeting for the purpose of soliciting comments of adjacent cities, responsible agencies, trustee agencies, and interested parties requesting notice as to the appropriate scope and content of the Draft EIR.

The purpose of the meeting is to present the project and environmental topics in a public setting and provide an opportunity for the City to hear from the community and interested agencies on what potential environmental issues are important to them. The meeting will include a brief presentation of the proposed project, the EIR process, and the topics to be analyzed in the EIR. Following the presentation, interested agencies, organizations, and members of the public will be encouraged to offer their views concerning what environmental issues should be included in the SEIR.

The Public Scoping Meeting will be held on the following date/time and location:

Tuesday, August 13, 2019, at 4:00 PM to 6:00 PM

Carl May Community Center
11711 West Drive
Desert Hot Springs, CA 92240
(760) 329-6411

Project Title: City of Desert Hot Springs General Plan Update

Project Applicant: City of Desert Hot Springs

Project Location:

The City of Desert Hot Springs is in the northwestern portion of the Coachella Valley, north of the City of Palm Springs and south of the unincorporated community of Morongo Valley. The City is a few miles south of the Riverside County/San Bernardino County boundary. The City is located near the interchange of the I-10 freeway and SR-62 highway. The San Bernardino and Little San Bernardino Mountains bound the City on the west and north while the San Jacinto and Santa Rosa Mountains lie further to the southwest and south. Joshua Tree National Park is located immediately to the northeast of the City and the Sand to Snow National Monument is located to the north.

The southern portion of the City lies to the north of Interstate 10. Interstate 10 provides regional east-west access through Desert Hot Springs; interchanges providing access for City of Desert Hot Springs are located at Indian Canyon Drive and Palm Drive. State Route 62 is a four-lane divided highway runs in a north-south direction along the western side of the City. Primary access points for City of Desert Hot Springs access are provided at Indian Canyon Drive, Pierson Boulevard, and Dillon Road.

Desert Hot Springs is in a desert landscape within the Coachella Valley with views of surrounding mountain ranges, which can be snow-capped during the winter months. Sitting approximately 1,000 feet above the rest of the valley, the City overlooks Palm Springs to the south and the rest of the Coachella Valley to the southeast. The extensive alluvial plains created by drainage from these mountains form the elevated valley. Both Mission Creek and Big Morongo Wash drainages traverse though the City diagonally from northwest to southeast and connect to the Whitewater River just south of Interstate 10. The City adjoins the Sand to Snow National Monument and Joshua Tree National Park. Although warmer temperatures are characteristic of the desert setting, the climate in Desert Hot Springs is cooler than the rest of the valley, and the air is less polluted because of the City's elevated position in the mountain.

Project Description:

The Planning Area consists of the corporate boundaries of the City of Desert Hot Springs and its Sphere of Influence. The City's corporate boundaries total 30.5 square miles and its Sphere of Influence (unincorporated Riverside County) totals 28.8 square miles for a total Planning Area of 59.3 square miles. The regional and local context of the Planning Area are identified on Exhibits 1 (Vicinity Map) and 2 (Planning Area).

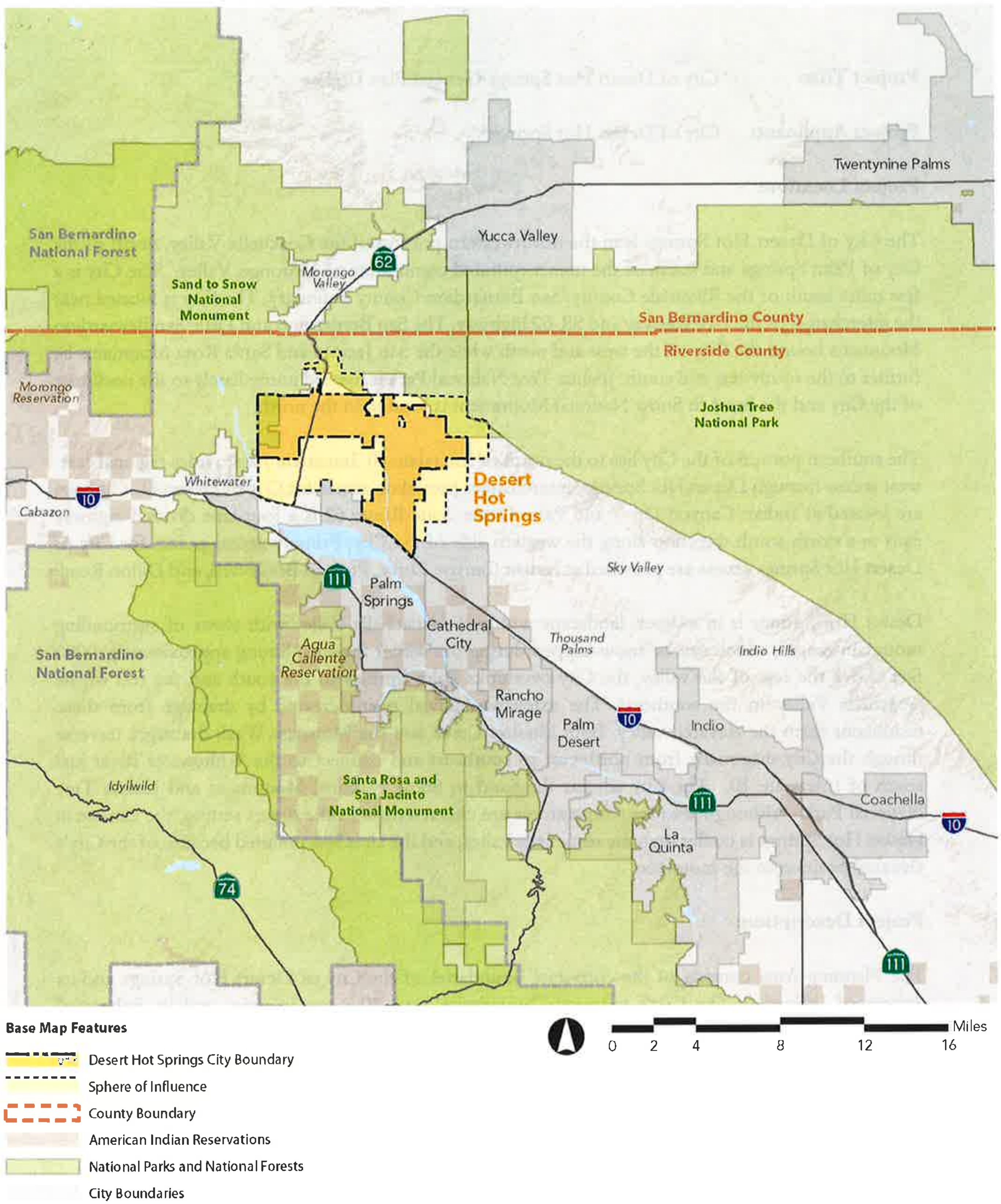
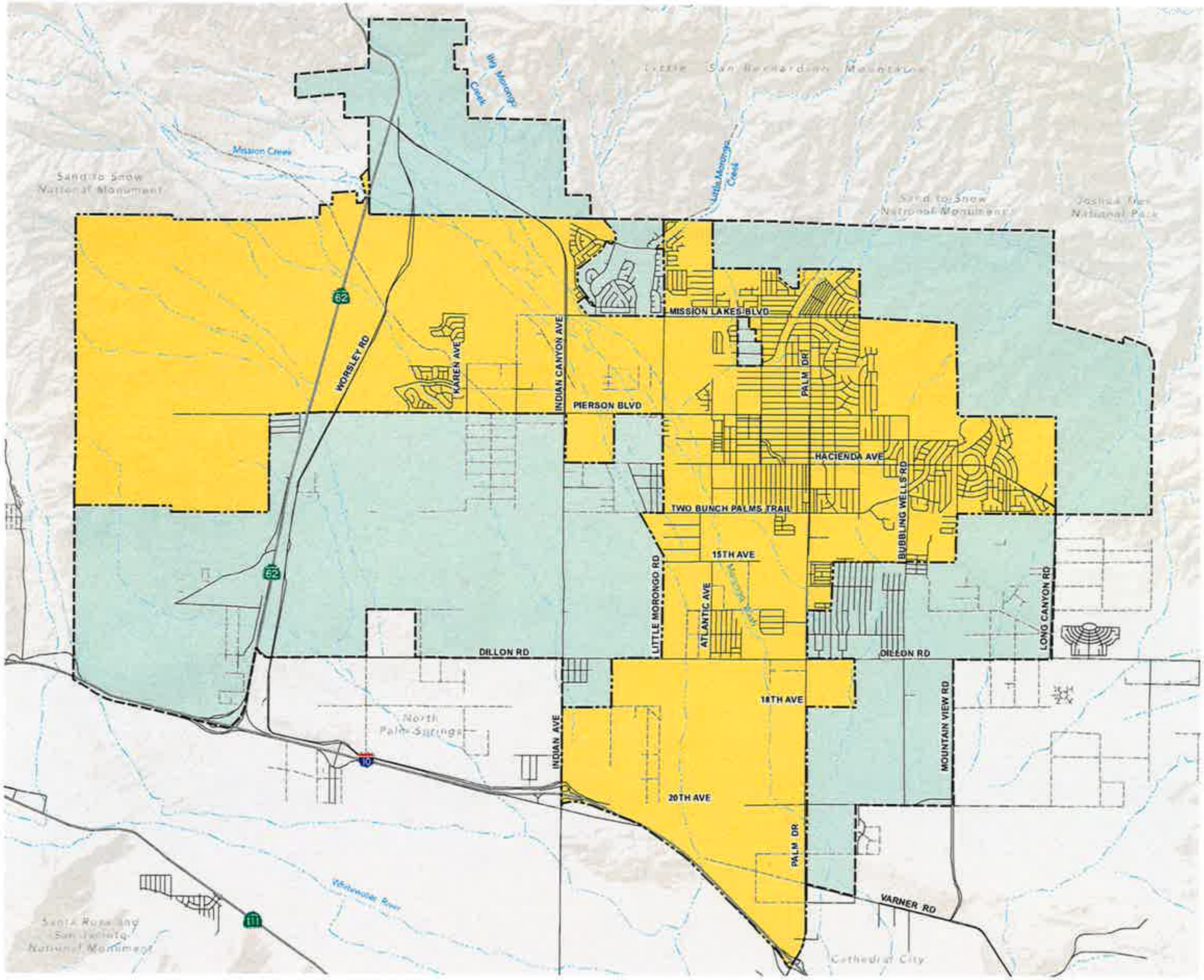


Exhibit 1
Vicinity Map

Exhibit 2:
Planning Areas



Planning Area

- Desert Hot Springs City Boundary
- Desert Hot Springs Sphere of Influence

Base Map Features

- Highway
- Major Road
- Minor Road
- Water Courses

Source: City Of Desert Hot Springs and Riverside County.
Date: January 2019.

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Existing Conditions

Desert Hot Springs currently consists predominantly of low-density residential development, several commercial centers at key intersections, a pedestrian scale downtown, and light industrial uses on the periphery. Much of the Planning Area is currently undeveloped; there are areas on the periphery of the city where newer housing developments have been started. Indoor cultivation of cannabis for commercial purposes occurs in the southern portion of the City. Since incorporation in 1963, the City has seen periods of surging population growth, particularly between 1980 and 2010. During the Great Recession of 2007 to 2009, there was little growth or development. The population of the City, as of 2018, is just below 30,000; the City has nine public schools (one high school, two middle schools, and six elementary schools).

The existing land uses are divided into six categories: residential, commercial, industrial, public and institutional, open space, and undeveloped (vacant) lands. The City's Existing Land Use map is shown as Exhibit 3-3. Desert Hot Springs' existing land use distribution is noted in Table 1. There are an estimated 11,562 dwelling units within the city limits and 7,538 dwelling units in the sphere of influence, for a total 19,100 dwellings within the Planning Area.

Proposed General Plan Update

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 2 compares 2018 and 2040 for the City of Desert Hot Springs, the Sphere of Influence and combined (Planning Area). The 2040 planning horizon for the Planning Area is estimated at approximately 53,664 dwelling units, 136,402 residents, 20,349,704 building square feet of non-residential uses, and 20,531 jobs. This table captures existing conditions as of 2018 and the projected growth based on the proposed land use plan is for a future horizon year of 2040.

Exhibit 3 shows the proposed Land Use Policy Plan under the General Plan Update.

The General Plan Update also includes an update of the zoning code or Zoning Code Amendment. The Zoning Code Amendment is being completed in concert with the GPU and includes an updated Zoning Map with revised and new Zoning Districts that are consistent with the Land Use Policy Plan map. The revised and new Zoning Districts will include development standards and tables identifying permitted, conditional, and prohibited uses. This Zoning Code Amendment implements the General Plan Update.

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Table 1: Existing Land Use Distribution (2018)

Land Use Designation	Desert Hot Springs			Sphere of Influence			Planning Area		
	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet	Net[1] Acres	Dwelling Units	Non-Residential Building Square Feet
Residential									
Single-Family	1,533.4	7,487	--	1,085.6	5,301	--	2,619.00	12,788	--
Multiple-Family	203.2	3,204	--	15.6	246	--	218.8	3450	--
Mobile Homes	145.9	871	--	333.5	1,991	--	479.4	2,862	--
Sub-Total	**1,882.5**	**11,562**	**--**	**1,434.7**	**7,538**	**--**	**3,317.20**	**19,100**	**--**
Commercial									
General Commercial	140.1	--	915,413	35.9	--	234,571	176	--	1,149,984
Hotel/Motel Spa	60.8	--	582,475	0.0	--	--	60.8	--	582,475
Office	10.7	--	120,183	0.4	--	4,513	11.1	--	124,696
Sub-Total	**190.0**	**--**	**1,618,071**	**36.3**	**--**	**239,084**	**247.9**	**--**	**1,857,155**
Industrial									
Light Industrial	158.7	--	1,036,945	49.0	--	320,166	207.7	--	1,357,111
Wind/Solar Farms	185.8	--	--	1,575.4	--	--	1,761.20	--	--
Sub-Total	**344.5**	--	**1,036,945**	**1,624.4**	--	**320,166**	**1,968.90**	--	**1,357,111**
Public and Institutional									
Public Facility	37.3	--	--	214.1	--	--	251.4	--	--
School - Public	111.3	--	--	14.9	--	--	126.2	--	--
Museum	4.8	--	--	--	--	--	**4.8**	--	--
Utility/Infrastructure	140.6	--	--	--	--	--	140.6	--	--
Sub-Total	**294.0**	--	--	**229.0**	--	--	**523**	--	--
Open Space									
Parks and Recreation	53.7	--	--	--	--	--	53.7	--	--
Golf Course	--	--	--	362.3	--	--	362.3	--	--
Open Space	4,508.3	--	--	5,613.0	--	--	10,121.30	--	--
Sub-Total	**4,562.0**	**--**	**--**	**5,975.3**	**--**	**--**	**10,537.30**	**--**	**--**
Undeveloped Land									
Vacant	10,764.3	--	--	8,179.7	--	--	18,962.30	--	--
Sub-Total	**10,764.3**	--	--	**8,179.7**	--	--	**18,962.30**	--	--
TOTAL	**18,058.9**	**11,562**	**2,655,016**	**17,497.7**	**7,538**	**559,250**	**35,556.60**	**19,100**	**3,214,266**

Source: City of Desert Hot Springs, Riverside County Assessor's Data, and General Plan Update GIS data, 2018.
Note: 1) Net acres excludes streets and other public rights of way.

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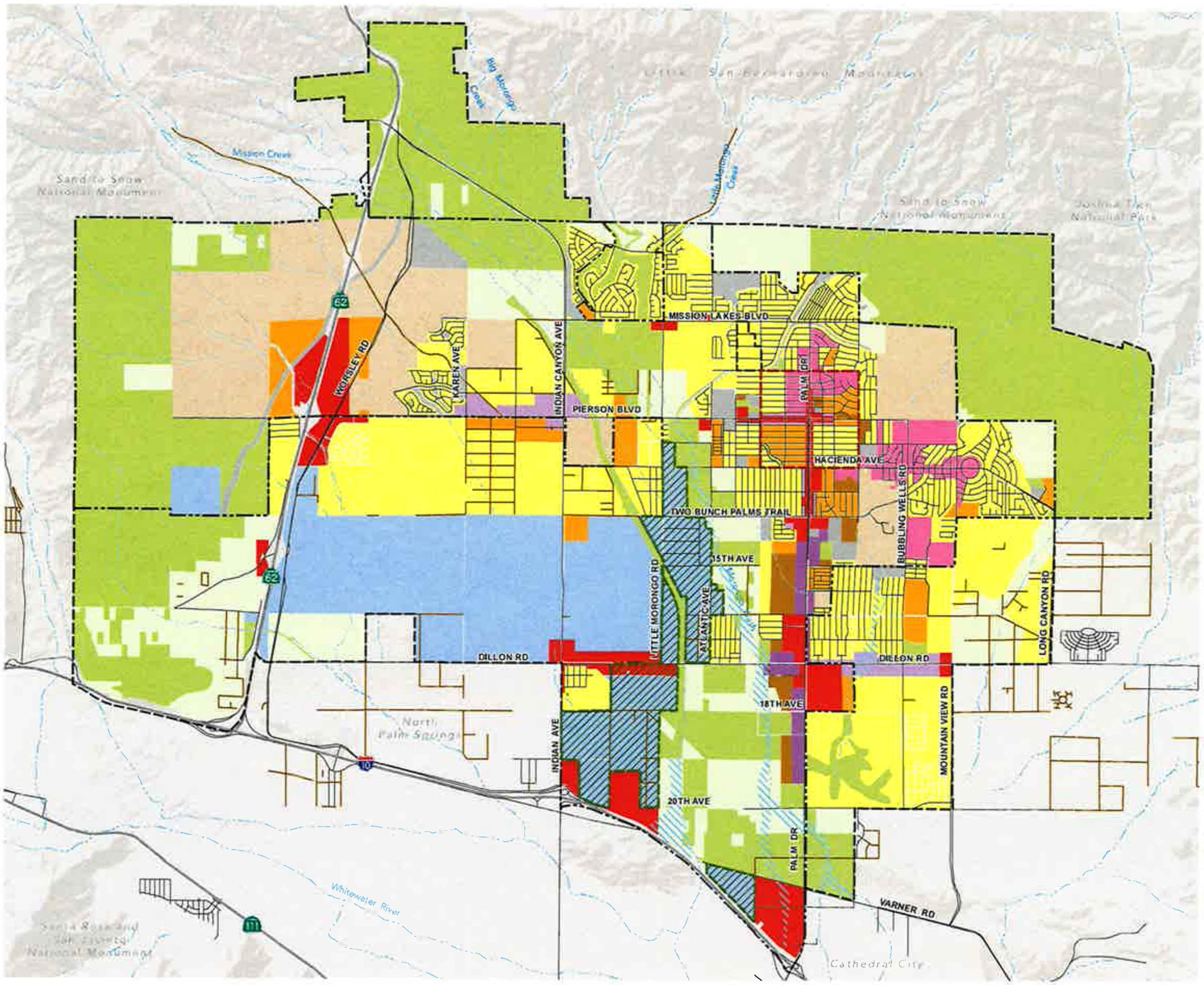
Exhibit 3:
Draft Land Use Policy Plan



Land Use Designations

- R-RD: Residential Rural Desert (1 DU/5 AC)
- R-L: Residential Low (Up to 6.0 DU/AC)
- R-M: Residential Medium (Up to 20.0 DU/AC)
- R-H: Residential High (15.1-30.0 DU/AC)
- R-SP: Residential Specific Plan
- C: Commercial (0.30 FAR)
- V-S: Visitor-Serving/Residential
- MU-N: Mixed-Use Neighborhood (15 DU/AC)
- MU-C: Mixed-Use Corridor (30 DU/AC)
- I: Industrial: (0.60 FAR)
- OS: Open Space
- P: Public/Institutional

Land Use Overlays

- Arts Overlay District
- Cultivation Overlay
- Floodway and Watercourse Overlay

Base Map Features

- City Boundary
- Sphere of Influence
- Highway
- Major Road
- Minor Road
- Water Courses

Source: City of Desert Hot Springs and Riverside County.
Date: January 2019.

0 0.25 0.5 1 1.5 2 Miles

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Table 2: General Plan Update - Comparison of 2018 and 2040

Area		Dwelling Units			Population	Non-Residential Building Sq. Ft.[3]	Employees	Hotel/ Motel Rooms	Students
		SF[1]	MF[2]	Total					
City	2018	8,358	3,204	11,562	29,390	2,655,016	4,162	755	6,326
	2040	22,214	12,594	34,808	88,476	13,140,605	14,611	1,652	12,900
	Change	+13,856	+9,390	+23,246	+59,086	+10,485,589	+10,449	+897	+6,574
SOI	2018	7,292	246	7,538	19,160	559,250	1,020	--	763
	2040	18,025	831	18,856	47,926	7,209,099	5,920	--	7,100
	Change	+10,733	+585	+11,318	+28,766	+6,649,849	+4,900	--	+6,337
Planning Area	2018	15,650	3,450	19,100	48,550	3,214,266	5,182	755	7,089
	2040	40,239	13,425	53,664	136,402	20,349,704	20,531	1,652	20,000
	Change	+24,589	+9,975	+34,564	+87,852	+17,135,438	+15,349	+897	+12,911

The General Plan Update addresses the seven State mandated general plan elements (land use, circulation, housing, safety, conservation, open space, and noise), and also includes two optional elements the Economic Development Element and the Health and Wellness Element. The updated General Plan establishes an overall development capacity and serves as a policy guide for determining the appropriate physical development, community services, and character of the entire Planning Area. The General Plan Update includes the following chapters:

- Introduction
- Land Use and Community Design Element
- Housing Element
- Economic Development Element
- Mobility and Infrastructure Element
- Open Space and Community Resources Element
- Health and Wellness Element
- Safety and Noise Element

The Land Use and Community Design Element includes a Land Use Plan that establishes 12 land use designations intended to provide a rational and orderly approach to land use development. The land use designations and acreages for the City are noted in Table 3 and for the City's Sphere of Influence (SOI) in Table 4 while Table 5 shows the land use information for the Planning Area (the City and the SOI combined).

No individual, site-specific development proposals will be approved as part of the General Plan Update EIR. Any such individual project would be subject to its own CEQA review, including evaluation against the General Plan EIR.

Table 3: Desert Hot Springs (City) General Plan Update (2040) Land Use

Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	2,212.7	0.20 DU/AC	230	585	--	--
Residential -Low	2,656.2	6.0 DU/AC	11,168	28,388	--	--
Residential -Medium	677.6	20.0 DU/AC	6,568	16,695	--	--
Residential -High	269.5	30.0 DU/AC	5,176	13,156	--	--
Sub-Total	***5,816.0***	***N/A***	***23,142***	***58,824***	--	--
Commercial						
General Commercial	984.8	0.30 FAR	--	--	5,581,081 SF	5,390
Visitor-Serving/ Residential	557.5	1.00 FAR	--	--	--	630
Sub-Total	***1,542.3***	--	--	--	***5,581,081 SF***	***6,020***
Mixed Use						
Mixed-Use Corridor	223.3	30.0 DU/AC	2,679	6,810	340,397 SF	467
Mixed-Use Neighborhood	188.7	15.0 DU/AC	1,132	2,877	287,631 SF	395
Sub-Total	***412.0***	--	***3,811***	***9,687***	***628,028 SF***	***862***
Industrial						
Industrial/Employment	1,302.8	0.60 FAR	--	--	6,809,996 SF	5,566
Sub-Total	***1,302.8***	--	--	--	***6,809,996 SF***	***5,566***
Public Uses						
Public Facilities	622.6	--	--	--	(12,900 students)	1,277
Sub-Total	**622.6**	--	--	--	--	***1,277***
Open Space/Recreation						
Open Space	4,796.4	--	--	--	--	--
Sub-Total	***4,796.4***	--	--	--	--	--
Other						
Specific Plans	3,566.8	varies	7,855	19,965	121,500 SF	886
Sub-Total	**3,566.8**	--	**7,855**	**19,965**	**121,500 SF**	**886**
TOTAL	**18,058.9**		**34,808**	**88,476**	**13,140,605 SF**	**14,611**

Source: City of Desert Hot Springs and General Plan Update GIS data.

Note: Project area acreage excludes ROWs within planning area.

Table 4: SOI General Plan Land Uses (2040)

Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	2,229.4	0.20 DU/AC	232	589	--	--
Residential -Low	4,289.4	6.0 DU/AC	15,208	38,655	--	--
Residential -Medium	326.0	20.0 DU/AC	2,585	6,570	--	--
Sub-Total	***6,844.8***	***N/A***	***18,025***	***45,814***	--	--
Commercial						
General Commercial	244.8	0.30 FAR	--	--	1,226,251	1,340
Sub-Total	***244.8***	--	--	--	***1,226,251***	***1,340***
Mixed Use						
Mixed-Use Corridor	9.7	30.0 DU/AC	116	295	14,728	20
Mixed-Use Neighborhood	119.1	15.0 DU/AC	715	1,817	181,610	249
Sub-Total	***128.8***	--	***831***	***2,112***	***196,338***	***269***
Industrial						
Industrial/Employment	3,008.5	0.60 FAR	--	--	5,786,510	3,845
Sub-Total	***3,008.5***	--	--	--	***5,786,510***	***3,845***
Public Uses						
Public Facilities	250.3	--	--	--	(7,100 students)	466
Sub-Total	**250.3**	--	--	--	--	***466***
Open Space/Recreation						
Open Space	7,020.5	--	--	--	--	--
Sub-Total	***7,020.5***	--	--	--	--	--
TOTAL	**17,497.7**	--	**18,856**	**47,926**	**7,209,099**	**5,920**

Source: City of Desert Hot Springs and General Plan Update GIS data.

Note: Project area acreage excludes ROWs within planning area.

Required Approvals:

Implementation of the General Plan Update will require the following discretionary approvals by the City of Desert Hot Springs's City Council:

- Certification of Final Environmental Impact Report;
- Adoption of a Mitigation Monitoring and Reporting Program;
- Adoption of General Plan Update
- Adoption of Zoning Code and Map Amendment

Table 5: Planning Area General Plan Land Uses (2040)

Land Use Designation	Net Acres	Max. DU/AC FAR	Units	Pop.	Commercial, Office, and Industrial Building Square Feet	Employment
Residential						
Residential -Rural Desert	4,442.1	0.20 DU/AC	462	1,174	--	--
Residential -Low	6,945.6	6.0 DU/AC	26,376	67,043	--	--
Residential -Medium	1,003.6	20.0 DU/AC	9,153	23,265	--	--
Residential -High	269.5	30.0 DU/AC	5,176	13,156	--	--
Sub-Total	***12,660.8***	***N/A***	***41,167***	***104,638***	--	--
Commercial						
General Commercial	1,229.6	0.30 FAR	--	--	6,807,332	6,730
Visitor-Serving/ Residential	557.5	1.00 FAR	--	--	-	630
Sub-Total	***1,787.1***	--	--	--	***6,807,332***	***7,360***
Mixed Use						
Mixed-Use Corridor	233.0	30.0 DU/AC	2,795	7,105	355,125	487
Mixed-Use Neighborhood	307.8	15.0D U/AC	1,847	4,694	469,241	644
Sub-Total	***540.8***	--	***4,642***	***11,799***	***824,366***	***1,131***
Industrial						
Industrial/Employment	4,311.3	0.60 FAR	--	--	12,596,506	9,411
Sub-Total	***4,311.3***	--	--	--	***12,596,506***	***9,411***
Public Uses						
Public Facilities	872.9	--	--	--	(12,900 students)	1,743
Sub-Total	***872.9***	--	--	--	--	***1,743***
Open Space/Recreation						
Open Space	11,816.9	--	--	--	--	--
Sub-Total	***11,816.9***	--	--	--	--	--
Other						
Specific Plans	3,566.8	Varies	7,855	19,965	121,500	886
Sub-Total	***3,566.8***	-	***7,855***	***19,965***	***121,500***	***886***
TOTAL	**35,556.6**	-	**53,664**	**136,402**	**20,349,704**	**20,531**

Source: City of Desert Hot Springs and General Plan Update GIS data.

Note: Project area acreage excludes ROWs within planning area.

Programmatic EIR:

The City of Desert Hot Springs has determined that the proposed General Plan Update will require preparation of an EIR pursuant to the California Environmental Quality Act (CEQA). The City is the Lead Agency for preparation of a Program Environmental Impact Report (Program EIR) for the proposed General Plan Update. The Program EIR will evaluate the environmental impacts resulting from implementation of the General Plan Update and will recommend mitigation measures to avoid or reduce significant impacts, where applicable. The Program EIR also is intended to help the City review future project proposals pursuant to section 15168 (Program EIR) of the CEQA Guidelines.

The following environmental topics will be evaluated in the EIR:

Aesthetics: The EIR will describe the aesthetic implications of the proposed General Plan Update, including its visual relationships to the surrounding vicinity and the potential impacts of development (the proposed array of building masses, heights, view corridors etc.) on important surrounding vantage points.

Air Quality: The EIR will describe the potential impacts of the General Plan Update on local and regional air quality based on methodologies defined by the South Coast Air Quality Management District (SCAQMD).

Biological Resources: The EIR will evaluate potential impacts on biological resources resulting from implementation of the General Plan Update.

Cultural and Tribal Cultural Resources: The EIR will describe any potential impacts and mitigation needs associated with historic and cultural (archaeological) resources, including potential impacts on Tribal Cultural Resources.

Geology and Soils: The EIR will describe the potential geotechnical implications and/or geologic hazards associated with implementation of the General Plan Update.

Greenhouse Gas Emissions and Global Climate Change: The EIR will describe the impacts of implementation of the General Plan Update on greenhouse gas emissions and global climate change, following the latest approach and methodologies recommended by State and regional agencies.

Hazards and Hazardous Materials: The EIR will describe the potential for hazardous material use or hazardous waste investigation and cleanup activities anticipated in the plan area and will describe any associated potential impacts and mitigation needs, if applicable. Potential construction period hazards and hazardous material impacts and mitigation needs will also be described.

Hydrology and Water Quality: The EIR will evaluate potential impacts on hydrology and water quality resulting from implementation of the General Plan Update, including possible effects related to drainage and flooding.

Land Use and Planning: The EIR will describe the potential effects of implementation of the General Plan Update on existing and planned land use characteristics in the City, including the General Plan's relationship to other adopted regional and local plans.

Mineral Resources: The EIR will evaluate if the General Plan Update will have any significant impact on existing mineral resources in the Planning Area.

Noise: The EIR will describe potential construction and long-term operational noise (traffic, mechanical systems etc.) impacts and related mitigation needs where applicable.

Population and Housing: The EIR will describe the anticipated effects of the projected population growth and subsequent increase in housing. This information will be used to forecast public service and utility needs in the General Plan area.

Public Services: The EIR will describe potential impacts on public services (police and fire protection parks and recreation, and schools).

Transportation and Circulation: The EIR will describe the transportation and circulation implications of the proposed General Plan Update, including the contribution to daily and peak hour traffic on local and regional roadways. The evaluation will include roadway system impacts, transit implications, and effects on pedestrian and bicycle circulation. General Plan components to improve multimodal travel will also be considered

Utilities and Service Systems: The EIR will describe the impacts of implementation of the General Plan Update on local utility and service systems, including water supply, water and wastewater treatment, and solid waste and recycling.

Agriculture and Forestry: The EIR will explain why these CEQA-defined environmental topics will not be adversely affected by implementation of the General Plan Update.

Alternatives: Pursuant to CEQA Guidelines Section 15126.6, the EIR will identify and compare a reasonable range of alternatives to the General Plan Update.

Appendix B - NOP Distribution List & Comment Letters

Flinn Fagg, AICP Director of Planning Services Planning Department City of Palm Springs 3200 E. Tahquitz Canyon Way Palm Springs, CA 92262	Robert Rodriguez Director of Planning/Building Planning Department City of Cathedral City 68700 Avenida Lalo Guerrero Cathedral City, CA 92234	Juan C. Perez, TLMA Director County of Riverside 4080 Lemon St., 14th Floor P.O. Box 1605 Riverside, CA 92502-1605
Tom Kirk, Executive Director Coachella Valley Association of Governments 73-710 Fred Waring Drive, Ste #200 Palm Desert, CA 92260	Jeff Brandt Senior Environmental Scientist California Department of Fish and Game Inland Deserts Region (Region 6) 3602 Inland Empire Blvd, Suite C-220 Ontario, CA 91764	Victoria Martin, Tribal Secretary Augustine Band of Cahuilla Indians PO Box 846 84-481 Avenue 54 Coachella, CA 92236
Anthony Madrigal, Jr. Twenty-Nine Palms Band of Mission Indians Director of Tribal Historic Preservation 46-200 Harrison Place Coachella, CA 92236	Ping Change Manager, Compliance Monitoring SCAG 900 Wilshire Blvd., Ste. 1700 Los Angeles, CA 90017	Lijin Sun, J.D. Program Supervisor, CEQA IGR South Coast Air Quality Management District 21865 East Copley Drive Diamond Bar, CA 91765-4178
Pablo Ramirez, Esq., Housing Practice Group Director 1040 Iowa Avenue Suite 109 Riverside, CA 92507 United States	Steve Bigley, Director Coachella Valley Water District 51501 Tyler Street P.O. Box 1058 Coachella, CA 92236	Danny Friend Director of Engineering and Operations Mission Springs Water District 66575 Second Street Desert Hot Springs, CA 92240
Rick Wade, General Manager Desert Valley Disposal Inc. 4690 East Mesquite Avenue Palm Springs, CA 92264	Rose Mayes, Executive Director Fair Housing Council of Riverside County 655 N. Palm Canyon, Suite 202 Palm Springs, CA 92263	Jim R. Karpiak, Executive Director Coachella Valley Mountains Conservancy 73-710 Fred Waring Drive, Suite 112 Palm Desert, CA 92260
Yvonne Franco, District Manager Coachella Valley Resource Conservation District 81077 Indio Blvd. Suite A Indio, CA 92201	Lauren Skiver, Chief Executive Officer/General Manager Sunline Transit Agency 32-505 Harry Oliver Trail Thousand Palms, CA 92276	Scott Morgan, Deputy Director State Clearinghouse P.O. Box 3044 1400 Tenth Street Sacramento, CA 95812-3044
Tammy Martin, Executive Director Friends of the Desert Mountains 51500 Highway 74 Palm Desert, CA 92260	Sandra Lyon, Superintendent of Schools Palm Springs Unified School District 150 District Center Drive Palm Springs, CA 92264	Joaquin Tijerina, Director Coachella Valley Small Business Development Center 44-199 Monroe Street, Suite B Indio, CA 92201
Irene N. Rodríguez, Executive Director Cabot's Pueblo Museum 67616 E. Desert View Avenue Desert Hot Springs, CA 92240	Larry Singh Community Program Specialist Desert Hot Springs Family Resource Center 14-201 Palm Drive, Suite 108 Desert Hot Springs, CA 92240	Joe Wallace Chief Executive Officer Coachella Valley Economic Partnership 3111 East Tahquitz Canyon Way Palm Springs, California 92262
David Smith, Park Superintendent, Joshua Tree National Park 74485 National Park Drive Twentynine Palms, CA 92277-3597	Southern Ca Gas Co. Construction Planning Inland Empire Region 1981 West Lugonia Avenue Redlands, Ca 92373	Edison International Attn: Planning Dept. 287 Tennessee Street Redlands, Ca 92373

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SCAG™

INNOVATING FOR A BETTER TOMORROW

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

September 5, 2019

Ms. Rebecca Deming, Community Development Director
City of Desert Hot Springs
65950 Pierson Boulevard
Desert Hot Springs, California 92240
Phone: (760) 329-6411
E-mail: rdeming@cityofdhs.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update [SCAG NO. IGR9986]

Dear Ms. Deming,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) goals and align with RTP/SCS policies.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update. The proposed project includes updating the existing General Plan within the Planning Area of the City and its Sphere of Influence.

When available, please send environmental documentation to *SCAG's Los Angeles office in Los Angeles (900 Wilshire Boulevard, Ste. 1700, Los Angeles, California 90017) or by email to* <u>au@scag.ca.gov</u> providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Associate Regional Planner, at (213) 236-1874 or au@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF DESERT HOT SPRINGS GENERAL PLAN UPDATE [SCAG NO. IGR9986]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	**SCAG does not yet have an agreed-upon security performance measure.*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS		
Goal		Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Desert Hot Springs Forecasts		
	Year 2020	**Year 2035**	**Year 2040**	**Year 2020**	**Year 2035**	**Year 2040**
Population	19,663,000	22,091,000	22,138,800	39,200	53,100	58,900
Households	6,458,000	7,325,000	7,412,300	14,400	19,700	21,900
Employment	8,414,000	9,441,000	9,871,500	7,900	12,300	12,900

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

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South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
South Coast AQMD (909) 396-2000 · www.aqmd.gov

SENT VIA USPS AND E-MAIL: September 3, 2019
rdeming@cityofdhs.org
Rebecca Deming, Director
City of Desert Hot Springs, Community Development Department
65950 Pierson Boulevard
Desert Hot Springs, CA 92240

Notice of Preparation of a Draft Environmental Impact Report for the Proposed City of Desert Hot Springs General Plan Update

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send South Coast AQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the Draft EIR directly to South Coast AQMD at the address shown in the letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files[1]. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD staff recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analyses. Copies of the Handbook are available from the South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on South Coast AQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

On March 3, 2017, the South Coast AQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP), which was later approved by the California Air Resources Board on

[1] Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment. The 2016 AQMP is available on South Coast AQMD's website at: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan.

South Coast AQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between Lead Agencies and South Coast AQMD to reduce community exposure to source-specific and cumulative air pollution impacts, South Coast AQMD adopted the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning in 2005. This Guidance Document provides suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. South Coast AQMD staff recommends that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions. This Guidance Document is available on South Coast AQMD's website at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf. Additional guidance on siting incompatible land uses (such as placing homes near freeways or other polluting sources) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. Guidance[2] on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

South Coast AQMD has also developed both regional and localized air quality significance thresholds. South Coast AQMD staff requests that the Lead Agency compare the emissions to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by South Coast AQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

When specific development is reasonably foreseeable as result of the goals, policies, and guidelines in the Proposed Project, the Lead Agency should identify any potential adverse air quality impacts and sources of air pollution that could occur using its best efforts to find out and a good-faith effort at full disclosure in the EIR. The degree of specificity will correspond to the degree of specificity involved in the underlying activity which is described in the EIR (CEQA Guidelines Section 15146). When quantifying air quality emissions, emissions from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air

[2] In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: https://www.arb.ca.gov/ch/landuse.htm.

quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, for phased projects where there will be an overlap between construction and operation, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

If the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the Proposed Project, including:

- Chapter 11 "Mitigating the Impact of a Project" of South Coast AQMD's *CEQA Air Quality Handbook*
- South Coast AQMD's CEQA web pages available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies
- South Coast AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- California Air Pollution Control Officers Association's (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Alternatives

If the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Draft EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

Permits

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the Draft EIR. For more information on permits, please visit South Coast AQMD's webpage at:

http://www.aqmd.gov/home/permits. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources

South Coast AQMD rules and relevant air quality reports and data are available by calling the South Coast AQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the South Coast AQMD's webpage (http://www.aqmd.gov).

South Coast AQMD staff is available to work with the Lead Agency to ensure that project air quality impacts are accurately evaluated and mitigated where feasible. Please contact me at lsun@aqmd.gov, should you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

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Control Number

Energy, LTD.

September 4, 2019

FREDERICK W. NOBLE
President / CEO

RECEIVED
Building Department
SEP 05 2019
City of Desert Hot Springs

Rebecca Deming
Community Development Director, City of Desert Hot Springs
65950 Pierson Boulevard
Desert Hot Springs, CA 92240

RE: "Notice of Preparation of a Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update" August 5, 2019

Ms Deming:

This is in response to your Notice of Preparation (Notice) dated August 5, 2019. We are responding on behalf of D&E Land Company, LLC, D&F Land Company, LLC, Wintec Properties, LLC and Wintec Energy Ltd, (the Wintec entities.)

The Wintec entities own land within the County of Riverside and within the Desert Hot Springs Sphere of Influence. The land is located contiguous to the northerly city limits of the City of Palm Springs and is depicted on the map attached as exhibit A. Most of the land is developed with the Sentinel Energy Center, a state of the art natural gas peaking plant, an essential component of the Southern California utility grid. The plant operates as authorized by California Energy Commission and the County of Riverside General Plan and Energy Industrial Zone.

Apparently the City of Desert Hot Springs seeks to pre-zone this property as in the City's Industrial Zone. Unfortunately, the City's current Industrial Zone does not allow for the operation of power plants other than cogeneration facilities. Thus, if the property were annexed to the City and the existing Industrial Zone were imposed un-amended, the Sentinel Energy Center would become a non-conforming use with all the difficulties that would entail.

Your Environmental Impact Report, thus, must take into account Sentinel and the adjacent Edison Devers Substation and related utility infrastructure, which taken in the aggregate are a vital part of the Southern California electrical infrastructure. Please note that this is not vacant land.

References made to Exhibit 3 to the Notice entitled "Draft Land Use Policy Plan." The property identified as industrial located north of Dillon Road and West of Indian Avenue and continuing north at least to Pierson Boulevard, is part of the Riverside County Wind Overlay District. This area is one of the best locations in the world for wind energy development, all things considered. Thus, the RL (Residential) designation for property within the Wind Energy Overlay is inappropriate, and in our view, mistaken. This is a windswept area. Many years ago, a few homes were built there and by and large were abandoned and demolished due to the difficult environment. In fact, it might be argued that it is irresponsible to create a situation where innocent people might be misled regarding the habitability of such an area.

The Notice provides, under the heading Utilities and Service Systems, that it will study the impacts of the implementation of the General Plan Update on local utilities and service systems. Sentinel Power Plant is a vital component of the Southern California utility infrastructure, and is the cleanest power plant in the State of California. The impact upon the utility system of reducing it to a non-conforming use must be studied.

The EIR should study the impact upon the environment should prime wind energy land be converted to housing.

In our view, if Desert Hot Springs seeks to annex these properties, and nothing in this letter should construe that we, as land owners, are willing to be annexed, the City should adopt the County Renewable Energy/Power Plant regulatory scheme because it has enabled over $2,000,000,000 of utilities/renewable energy facilities and is responsible for what is generally considered as the most productive wind energy area in the world.

As a housekeeping matter, there is a small sliver of land, running north from Dillon road on the west side of Melissa Lane, which you have identified as within your Sphere of Influence. That sliver of land, is in fact, within the City Limits of Palm Springs. This error occurred because re the original LAFCO map was inaccurate. We can provide you with a copy of the corrected map if you desire.

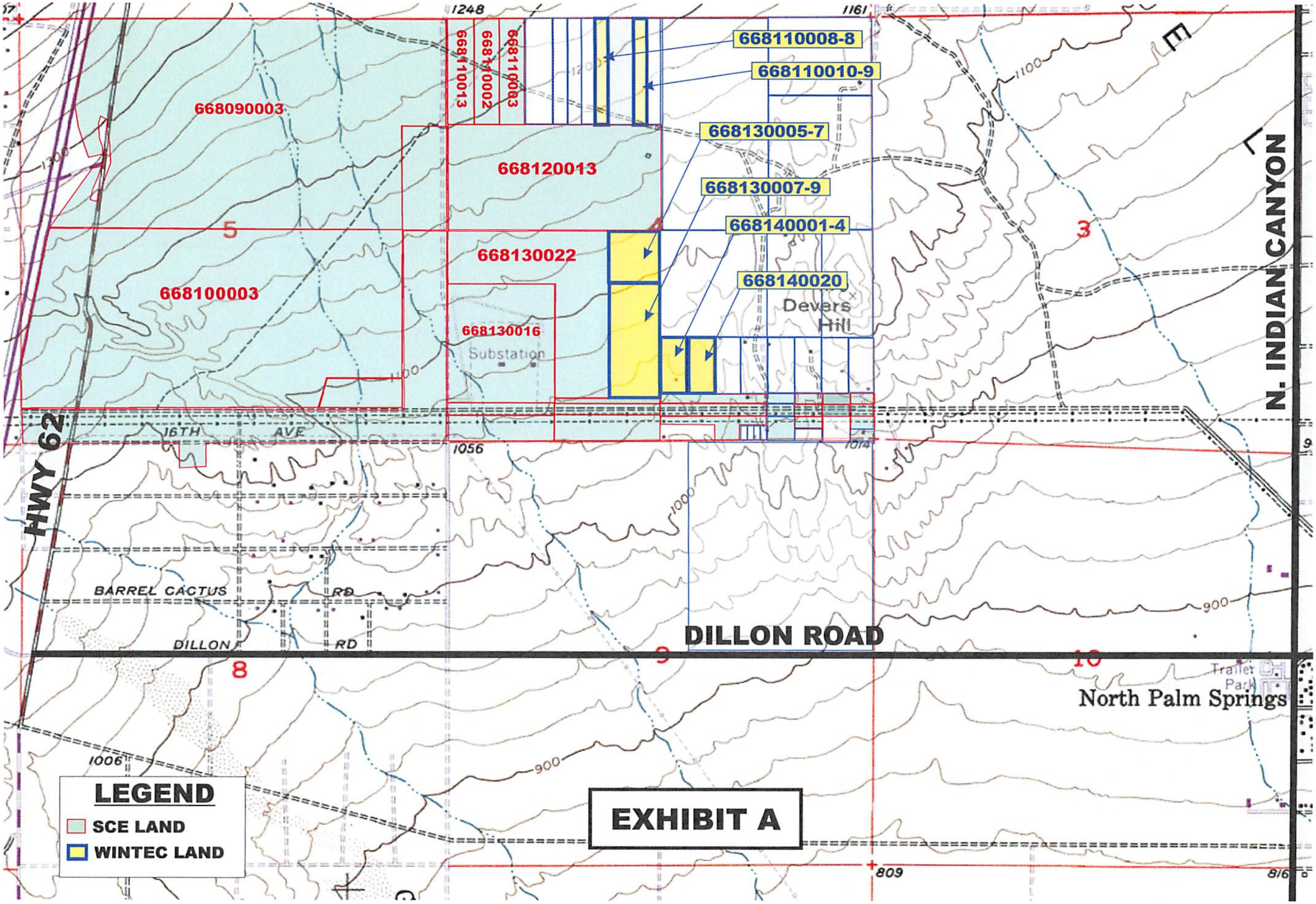
We are available to discuss these matters further. Please contact Chris Lucker, (310) 489-1605 or the undersigned at (760) 323-9490 extension 100.

Very Truly yours,

FW Noble

Frederick W. Noble

On behalf of the above listed entities



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668140020
Devers Hill
668130016
Substation
16TH AVE
HWY 62
N. INDIAN CANYON
BARREL CACTUS RD
DILLON RD
DILLON ROAD
North Palm Springs
Trailer Park
LEGEND
SCE LAND
WINTEC LAND
EXHIBIT A

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NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

August 15, 2019

Rebecca Demming
Desert Hot Springs, City of
65950 Pierson Boulevard
Desert Hot Springs, CA 92240

RE: SCH# 2019080101, Desert Hot Springs General Plan Update and Zoning Amendment Project, Riverside County

Dear Ms. Demming:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
       i. Planning and construction to avoid the resources and protect the cultural and natural context.
       ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
       i. Protecting the cultural character and integrity of the resource.
       ii. Protecting the traditional use of the resource.
       iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
   a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
   b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
   a. If part or all of the APE has been previously surveyed for cultural resources.
   b. If any known cultural resources have already been recorded on or adjacent to the APE.
   c. If the probability is low, moderate, or high that cultural resources are located in the APE.
   d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Staff Services Analyst

cc: State Clearinghouse

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 5, 2019
Sent via email

Ms. Rebecca Deming
Community Development Director
City of Desert Hot Springs
65950 Pierson Blvd.
Desert Hot Springs, CA 92240
rdeming@cityofdhs.org

Subject: Notice of Preparation of a Draft Environmental Impact Report
City of Desert Hot Springs General Plan Update Project
State Clearinghouse No. 2019080101

Dear Ms. Deming:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Desert Hot Springs (City) for the City of Desert Hot Springs General Plan Update Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project proposes an update to the existing General Plan to achieve land use, transportation, housing, and other goals of the City that reflect the community's growth for a future horizon year of 2040. The Project also includes an update of the zoning code, which will generate an updated Zoning Map with revised and new Zoning Districts that are consistent with the Land Use Policy Plan Update.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to the Project's consistency with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

CDFW recognizes that the general plan EIR need not be as detailed as CEQA documents prepared for specific projects that may follow (CEQA Guidelines § 15146). CDFW also recognizes that the level of detail should be reflective of the level contained in the plan or plan element being considered (Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351). However, please note that the City cannot defer the analysis of significant effects of the general plan to later-tiered CEQA documents (Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182).

CDFW recommends that the forthcoming DEIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the

DEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

CDFW recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or CNDDB@wildlife.ca.gov to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

   Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be effected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service (USFWS), where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see https://www.wildlife.ca.gov/Conservation/Plants);

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

6. A full accounting of all mitigation/conservation lands within and adjacent to the Project.

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to affect biological resources as a result of the Project (including the plan's land use designations, policies and programs). To ensure that project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by Project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

   With respect to defensible space: please ensure that the DEIR fully describes and identifies the location, acreage, and composition of defensible space *within* proposed development land use designations. Please ensure that any graphics and descriptions of defensible space associated with this Project comply with Riverside County Fire (or other applicable agency) regulations/ requirements. The City, through their planning processes, should be ensuring that defensible space is provided and accounted for *within proposed development land use designated areas*, and not transferred to adjacent open space or conservations lands.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or conservation/mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).

Please note that the Project area supports significant biological resources and contains habitat connections, providing for wildlife movement across the broader landscape, sustaining both transitory and permanent wildlife populations. CDFW encourages the City to consider project design that avoids and preserves onsite features that contribute to habitat connectivity. The DEIR should include a discussion of both direct and indirect impacts to wildlife movement and connectivity, including maintenance of wildlife corridor/movement areas to adjacent undisturbed habitats.

3. An evaluation of impacts to adjacent open space lands from both the Project and long-term operational and maintenance needs.

4. A cumulative effects analysis developed as described under CEQA Guidelines § 15130. The DEIR must analyze the cumulative effects of the plan's land use designations, policies and programs on the environment. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Alternatives Analysis

The DEIR must describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would "feasibly attain most of the basic objectives of the Project," and would avoid or substantially lessen any of the Project's significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis must also evaluate a "no project" alternative (CEQA Guidelines § 15126.6[e]). The no Project alternative must evaluate how the changing environment, such as climate change and drought, may affect the community if a new or revised general plan were not adopted.

Mitigation Measures for Project Impacts to Biological Resources

The DEIR must identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. The City should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the DEIR fully analyze

potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.

2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.

3. *California Species of Special Concern* (CSSC): CSSC status applies to animals generally not listed under the federal Endangered Species Act or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSCs should be considered during the environmental review process.

4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

   If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR. CEQA Guidelines §15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center* v. *County* of *Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete (*Sundstrom* v. *County* of *Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry* v. *City* of

Murrieta (1995) 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc.* v. *County of Orange* (2005) 131 Cal. App. 4th 777).

CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, in order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.

   Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant

thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). The issuance of this Agreement does not in any way exempt or excuse compliance with these statutes.

CDFW recommends that the DEIR include specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. If pre-construction surveys are proposed in the DEIR, CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

Coachella Valley Multiple Species Habitat Conservation Plan

Within the Inland Deserts Region, CDFW issued Natural Community Conservation Plan Approval and Take Authorization for the CVMSHCP per Section 2800, *et seq.*, of the California Fish and Game Code on September 9, 2008. The CVMSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit.

Compliance with approved habitat plans, such as the CVMSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the CVMSHCP as a result of this Project is necessary to address CEQA requirements. To obtain additional information regarding the CVMSHCP please go to: http://www.cvmshcp.org/.

The proposed Project occurs within the CVMSHCP area and is subject to the provisions and policies of the CVMSHCP. In order to be considered a covered activity, Permittees must demonstrate that proposed actions are consistent with the CVMSHCP and its associated Implementing Agreement. The City is the Lead Agency and is signatory to the Implementing Agreement of the CVMSHCP. The Upper Mission Creek/Big Morongo Canyon Conservation Area occurs within the City's boundary. The Conservation Objectives for the Upper Mission Creek/Big Morongo Canyon Conservation Area are identified in Section 4.3.7 of the CVMSHCP. If the DEIR proposes Project elements, including changes in land use designations (for example from open space to a development land use designation), within a Conservation Area, the Project will be subject to the Joint Project Review (JPR) process through the Coachella Valley Conservation Commission (CVCC). The Project will need to demonstrate consistency with the Conservation Objectives (as identified in CVMSHP Section 4.3.7), and address Avoidance, Minimization, and Mitigation Measures (CVMSHCP Section 4.4), and Land Use Adjacency Guidelines (CVMSHCP Section 4.5).

Regardless of whether take of threatened and/or endangered species is obtained through the CVMSHCP or through a CESA ITP, the DEIR needs to address how the proposed Project will affect the conservation objectives of the CVMSHCP.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project; unless this Project is proposed to be a covered activity under the CVMSHCP. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. The California Fish and Game Code requires that CDFW comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DEIR addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of CESA.

Lake and Streambed Alteration Program

Based on review of aerial photography, the City boundary encompasses a multitude of ephemeral streambeds. CDFW recommends that the City condition the DEIR to include a mitigation measure for consultation with CDFW to determine if Fish and Game Code section 1600 et seq, resources may occur within a proposed project area. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or Deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify the Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to https://www.wildlife.ca.gov/Conservation/LSA/Forms.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP of a DEIR for the City of Desert Hot Springs General Plan Update Project (SCH No. 2018080101) and recommends that City address CDFW's comments and concerns in the forthcoming DEIR. If you should have any questions pertaining to the comments provided in this letter, please contact Joanna Gibson, Senior Environmental Scientist, Specialist, at (909) 987-7449 or at joanna.gibson@wildlife.ca.gov.

Sincerely,

Scott Wilson

Scott Wilson
Environmental Program Manager
Inland Deserts Region

ec: Office of Planning and Research, State Clearinghouse, Sacramento

California Department of Fish and Wildlife
Heather Pert

REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

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Diamond Generating Corporation
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September 4, 2019

Ms. Rebecca Deming
Community Development Director
City of Desert Hot Springs
65950 Pierson Boulevard
Desert Hot Springs, California 92240

Subject: Notice of Preparation of Draft Environmental Impact Report for the City of Desert Hot Springs General Plan Update

Dear Ms. Deming:

We are providing comments to the Notice of Preparation that was issued on August 5, 2019, and the Scoping Meeting that was held on August 13, 2019, in reference to the Proposed General Plan Update for the City of Desert Hot Springs.

Comment 1:

We believe that Table 1: Existing Land Use Distribution (2018) in the Notice of Preparation needs to be amended to acknowledge existing Utility / Infrastructure in that Land Use Designation for the Sphere of Influence, which should include the Southern California Edison Devers Electrical Substation consisting of a nominal 160 acres and the Sentinel Energy Center consisting of a nominal 50 acres. Both of these existing land uses are north of Dillion Road and east of Diablo Road / Oasis Drive, which would place them in the Sphere of Influence portion of the Planning Area. The Land Use Designation, Wind / Solar Farms indicates 1,575.4 acres utilized for those purposes in the Sphere of Influence area; however this category does not account for electrical transmission and generation uses that exist in the Sphere of Influence.

Comment 2:

Exhibit 3: Draft Land Use Policy Plan indicates just one overall Land Use Designation for all industrial uses, I: Industrial: (0.60 FAR). We believe that this is to general of a land use designation and does not appropriately reflect the existing land uses in portions of the Sphere of Influence area. The current Land Use Designations for industrial uses include I-L – Light Industrial, I-M – Medium Industrial and I-E – Industrial Energy-Related, which are more appropriate given the existing land uses and the significant energy related potential in portions of the Sphere of Influence area.

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Comment 3:

Exhibit 3: Draft Land Use Policy Plan indicates that abutting the large Land Use Designation I: Industrial: (0.60 FAR) you have indicated a Land Use Designation of R-L: Residential Low (Up to 6.0 DU/AC). We believe that this R-L Land Use Designation should be reevaluated for possible designation as I: Industrial: (0.60 FAR) and more specifically I-E - Industrial Energy-Related since it may contain high value wind resource capabilities.

Comment 4:

We believe that the City of Desert Hot Springs should consider incorporating and maintaining the existing Land Use Designations and Zoning Code Districts that have been developed by the County of Riverside for the unincorporated areas of the Desert Hot Springs Sphere of Influence.

The San Gorgonio Pass and the western portion of the Coachella Valley are a world recognized wind resource area and provide significant electrical energy for the Coachella Valley and surrounding Southern California communities. The Desert Hot Springs General Plan Update will need to acknowledge the electrical infrastructure resources that are currently located in the City of Desert Hot Springs along with the Sphere of Influence, provide for the ability to continue to utilize these resources and have the ability to add needed infrastructure to integrate these resources in to the Southern California electrical grid.

Please include us in your list of entities that would receive future correspondence pertaining to the Desert Hot Springs General Plan Update, the Draft Environmental Impact Report, and the California Environmental Quality Act processes relating to the General Plan Update. The following is our contact information:

Mr. Bo Buchynsky, COO
Diamond Generating LLC
633 West Fifth Street, Suite 2700
Los Angeles, California 90071

Phone: (213) 473 – 0080 Facsimile: (213) 620 – 1170
Email: b.buchynsky@dgc-us.com

We look forward to participating in your General Plan Update.

Best regards,

Bo Buchynsky

Bo Buchynsky
Chief Operating Officer
Diamond Generating LLC

Appendix C - City of Desert Hot Springs General Plan Update Policies

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Appendix C. General Plan Goals and Policies

Desert Hot Springs General Plan Goals and Policies.

LAND USE AND COMMUNITY DESIGN

GOAL LU-1: A BALANCED COMMUNITY WITH A MIX OF LAND USES THAT SUPPORTS THRIVING BUSINESSES, COMPLETE AND HEALTHY NEIGHBORHOODS, AND A SUSTAINABLE DESERT ENVIRONMENT

Policy LU-1.1: Balanced Growth. Support development and growth that balance residential, commercial, industrial, and open space uses in a manner that meet the needs of the community without overburdening community resources and infrastructure.

Policy LU-1.2: Complete Neighborhoods. Create complete neighborhoods that integrate trails, parks, open space, community facilities, gathering spaces, and commercial services with residential development.

Policy LU-1.3: Compatibility. Require that new development be visually and functionally compatible with established residential neighborhoods, industrial and commercial areas, and natural desert habitat areas.

Policy LU-1.4: Sustainability. Promote sustainable land uses and building practices that promote efficient energy use and resource sustainability.

Policy LU-1.5: Reduce Vehicular Trips and Miles Traveled. Coordinate land use patterns with the Mobility and Infrastructure Element to improve and protect air quality, reduce vehicular trips, and promote active transportation modes and transit use.

Policy LU-1.6: Infill Revitalization. Encourage revitalization of underutilized and vacant infill properties within the City closest to available infrastructure and community services.

Policy LU-1.7: Infrastructure. Ensure that infrastructure is integrated into the community concurrently with new development projects.

Policy LU-1.8: Lot Consolidation. Encourage lot consolidation, and utilize land assembly strategies and incentives to promote compatible infill developments.

Policy LU-1.9: Community Health through Land Use Planning. Maintain and promote the pattern and linkage of land uses citywide to promote mobility choices and healthy lifestyles.

Policy LU-1.10: Land Uses with Potential Public Health and Safety Impacts. Limit— to the greatest extent possible¬—the overconcentration of businesses that may contribute to adverse public health and safety conditions, such as but not limited to alcohol sales uses and cannabis production, processing, retailing, and wholesaling.

Policy LU-1.11: Project Coordination. Coordinate with the Riverside County Planning Department and surrounding agencies in the review of projects within the City's sphere of influence to seek consistency with the City's land use designations and policies and those projects in unincorporated areas adjacent to the City.

Residential

GOAL LU-2: PROVIDE A VARIETY OF HOUSING TYPES AND DENSITIES TO ACCOMMODATE EXISTING AND FUTURE RESIDENTS

Policy LU-2.1: Residential Compatibility. Encourage preservation and character of the established residential neighborhoods, and ensure a consistent and compatible residential land use pattern as new neighborhoods develop and expand.

Policy LU-2.2: Development Transitions. Establish appropriate buffers and transitions (land use, form and/or landscaping) between residential neighborhoods and adjoining higher-density development.

Policy LU-2.3: Consistent Development. Require that new residential development be visually and functionally consistent in scale, mass, and character with structures in the surrounding neighborhood.

Policy LU-2.4: Housing Innovation. Consider innovative housing types and services that meets the needs of the community.

Policy LU-2.5: Adequate Services. Ensure that adequate community services are provided to residential development.

Policy LU-2.6: Safety. Promote development of safe and well-maintained neighborhoods by implementing crime prevention through environmental design.

Policy LU-2.7: Higher Residential Density Corridor. Allow higher-density and mixed uses along Palm Drive and Pierson Boulevard to encourage shopping, services, and entertainment amenities in closer proximity to established infrastructure and transit services.

Policy LU-2.8: Specific Plans. Update or rescind specific plans that are outdated and do not meet the community goals.

Policy LU-2.9: Residential Master Plan Communities. Ensure residential master plan communities protect desert habitat resources, provide community services, provide neighborhood retail and commercial services, and provide the necessary infrastructure that does not overburden established community resources.

Commercial

GOAL LU-3: VIBRANT AND ECONOMICALLY SUCCESSFUL COMMERCIAL CENTERS THAT RESPOND TO CHANGING ECONOMIC CONDITIONS AND THAT ARE WELL DISTRIBUTED CITYWIDE

Policy LU-3.1: Commercial Services. Ensure that zoning regulations allow for a full range of commercial services, retail activity, and entertainment and restaurant uses.

Policy LU-3.2: Neighborhood-Serving Commercial. Promote opportunities for neighborhood-serving commercial uses as part of complete neighborhoods. Such uses can include sit-down restaurants, local retail, public spaces within shopping centers, and neighborhood-oriented retail areas that provide essential goods and services.

Policy LU-3.3: Balance Commercial. Maintain a balanced distribution of retail and commercial services—including local businesses, national chains, and experiential commercial uses¬—to meet diverse local needs in the community.

Policy LU-3.4: Promote Local Businesses. Work with commercial, office, and industrial business owners to promote businesses in Desert Hot Springs.

Policy LU-3.5: Diversified Businesses. Encourage a variety of businesses to locate in Desert Hot Springs, including quality grocery stores, retail stores, health and personal services, and diverse restaurant types.

Policy LU-3.6: Commercial Intensification. Encourage the intensification of commercial uses on underutilized and vacant commercial properties within Downtown and along the Pierson Boulevard and Palm Drive corridors.

Policy LU-3.7: Medical and Health Services. Promote medical and health services such as urgent care facilities/clinics, hospitals, health facilities, and medical offices.

Policy LU-3.8: Freeway-Oriented Uses. Promote regional-serving commercial uses along freeways and highways that accommodate and provide services to motorists, including lodging, large-scale commercial centers, automotive-related, tourism, and entertainment uses.

Policy LU-3.9: High Sales Tax Producing Retail Uses. Pursue high sales tax producing retail uses within established shopping centers, provided the development is compatible with the surrounding area in terms of building scale, design, and traffic.

Policy LU-3.10: City-owned Land and Resources. Maximize revenue from the utilization of City-owned land and resources.

Policy LU-3.11: Efficiency in Providing City Services and Infrastructure. Accommodate a diversity of uses that create a tax base which allows the City to maintain efficient operations in the delivery of services and maintenance of public infrastructure, including community centers, parks, roads, storm drainage, and other infrastructure.

GOAL LU-4: A VIBRANT, ENGAGING, AND ATTRACTIVE DOWNTOWN

Policy LU-4.1: Central Business District. Require new development to be pedestrian friendly and oriented toward Pierson Boulevard and Palm Drive to allow retail, commercial services, and experiential uses to contribute to a thriving Downtown environment.

Policy LU-4.2: Pedestrian-friendly Environments. Accommodate outdoor cafes and neighborhood-serving uses as a means of promoting pedestrian activity and commercial center vitality.

Policy LU-4.3: Downtown Vitality. Promote activities, events, land uses, and development projects that enhance the vitality and vibrancy of the Downtown area.

Policy LU-4.4: Downtown Gathering Spaces. Create public gathering spaces with flexible areas that allow for passive social gatherings and spaces for public events in Downtown, including a central town square with plazas and courtyards for community gathering spaces, public art, and community events.

Policy LU-4.5: Downtown Events. Facilitate and promote special events and community celebrations in Downtown to stimulate its role as a community focal point and to encourage commercial activity.

Policy LU-4.6: Seismically Constrained Properties. Encourage gathering spaces and small pocket parks on properties that are located on or near active earthquake faults and other seismically constrained areas.

Policy LU-4.8: Arts and Culture District. Establish an Arts and Culture District within Downtown that supports artist studios, galleries, live/work studios, and public places for events and activities.

GOAL LU-5: A SUSTAINABLE AND ATTRACTIVE SPA/RESORT BUSINESS COMMUNITY

Policy LU-5.1: Spas and Resorts. Encourage the development of well-designed spas and resorts that respect the surrounding residential uses.

Policy LU-5.2: Vacation Residential Uses. Encourage the development of vacation-styled residences within the Spa Zone area.

Policy LU-5.3: Tourism. Expand the development of well-designed spa resorts, lodging accommodations, and related supporting land uses that encourage tourism.

Policy LU-5.4: Transient Occupancy Tax. Continue to implement transient occupancy taxes to all lodging facilities, including short-term and long-term accommodations and tourism experiences.

Mixed Use

GOAL LU-7: STRATEGICALLY LOCATED AND DYNAMIC MIXED-USE ENVIRONMENTS THAT OFFER NEIGHBORHOOD-SERVING AMENITIES, NEW AND EMERGING HOUSING TYPES, AND ENGAGING PUBLIC SPACES

Policy LU-7.1: Mixed-Use Commercial Component. Require that new mixed-use development projects include a substantial viable, commercial component. Consider innovative incentives and startup funds to help improve long-term longevity of commercial uses.

Policy LU-7.2: Mixed-Use Street Interface. Ensure that development enhances pedestrian activity by providing active uses, walkability, and connectivity within mixed-use districts. Require appropriate design features along a majority of the building street frontage. Residential developments should include architecturally enhanced main entrances, lobbies, front stoops and porches, open space, and other similar features.

Policy LU-7.3: Mixed-Use Building Transition. Provide design and development standards that require mixed-use buildings to approximate the scale of the surrounding area. Setbacks, landscaping, and/or building transitions should buffer abutting single-unit residential areas, and all development lighting should be mitigated to avoid intrusion onto adjacent uses.

Policy LU-7.4: Gathering Spaces. Require the incorporation of gathering areas such as plazas and comfortable outdoor seating areas.

Policy LU-7.5: Connections. Require pedestrian connections between varying land uses and buildings to encourage safe access.

Policy LU-7.6: Innovative Parking Solutions. Allow mixed-use developments to utilize shared parking plans, park once and walk districts, and other innovative and flexible parking strategies.

Industrial

GOAL LU-8: INDUSTRIAL OPPORTUNITIES AND NEW DEVELOPMENT THAT BROADEN THE ECONOMIC AND EMPLOYMENT BASE OF THE CITY

Policy LU-8.1: Employment Centers. Ensure employment centers provide a variety of land uses and infrastructure that will allow the City to remain economically competitive.

Policy LU-8.2: Safe Industrial Uses. Promote industrial development projects in areas with available infrastructure and adjacent to major transportation corridors. Site such uses in areas where impacts on public health and safety can be minimized.

Policy LU-8.3: Protect Industrial Uses. Limit non-industrial uses within industrially designated areas to protect the viability of those areas for industrial businesses.

Policy LU-8.4: Employment Expansion. Facilitate industrial developments that accommodate businesses which are employee intensive, provide high-skilled jobs, and are economically beneficial to the City.

Policy LU-8.5: Prioritize Industrial Development. Prioritize business attraction and retention of employment and revenue-generating uses on industrial land.

Public Facilities and Institutional

GOAL LU-9: PUBLIC AND QUASI-PUBLIC USES AND FACILITIES THAT BENEFIT THE COMMUNITY AND ARE VITAL TO MEETING RESIDENTS' NEEDS

Policy LU-9.1: Public Services. Encourage the development of public facilities in a manner which ensures high levels of service, are located to efficiently serve the community, and are compatible with existing and future land uses.

Policy LU-9.2: Public Uses. Accommodate public and quasi-public uses at appropriate locations: those that are convenient to the persons served and that minimize impacts to residential neighborhoods.

Policy LU-9.3: Community Input. Perform regular community surveys to assess the needs of City residents to determine priorities for rehabilitation or new construction of public facilities.

Policy LU-9.4: Available Land for Public Uses. Protect those lands needed for public and quasi-public services which benefit the City as a whole.

Policy LU-9.5: Public Safety Siting. Avoid establishing public services and safety facilities in or near flooding and seismic hazard areas.

Open Space/Recreation

GOAL LU-10: PROVIDE A HIGH QUALITY OF LIFE FOR THE COMMUNITY THROUGH THE PROVISION OF PARKS AND RECREATIONAL SERVICES AND THE PRESERVATION OF THE NATURAL DESERT LANDSCAPE

Policy LU-0.1: Public Services. Parks and Open Space. Preserve, protect, and maintain open space, parks, and recreation facilities as critical spaces in Desert Hot Springs, recognizing that such uses contribute to the high quality of life in the City. Promote land use decisions that provide for conservation of open space.

Policy LU-10.2: Private and Common Open Space. Require the provision of adequate private and common open space for all residential unit types and densities.

Policy LU-10.3: Development Cluster. Encourage the clustering of development for the preservation of natural open space, away from floodplains and desert washes, and for the provision of parkland and other community amenities and services.

Policy LU-10.4: Recreation. Encourage the use of mountain and hill areas for recreational purposes within the limits and restrictions described and outlined in the Coachella Valley Multispecies Habitat Conservation Plan.

Policy LU-10.5: Preserve Hillside Areas. Encourage the preservation of hillside areas that frame views of the community.

Policy LU-10.6: Hillside Acquisition. Encourage the acquisition of hillside parcels by public trusts or other conservation-oriented entities to meet the City's and Coachella Valley Multispecies Habitat Conservation Plan's goals for conservation.

Policy LU-10.7: New Park Facilities. Plan for and establish new parks to meet the needs of the community.

Balancing Development and Habitat Conservation

GOAL LU-11: SUSTAINABLE DEVELOPMENT APPROACHES THAT RESPECT AND RESPOND TO THE DESERT ENVIRONMENT

Policy LU-11.1: Efficient Land Use Patterns. Encourage a land use pattern that preserves the City's desert environment, limits impact to natural habitat areas, and minimizes sprawl.

Policy LU-11.2: Cluster Development. Encourage proposed projects within designated conservation areas to cluster development to provide for the greatest amount of conservation while respecting surrounding established and planned uses.

Policy LU-11.3: Density Transfers. Encourage lands within conservation areas to participate in density transfers to maintain property owner rights and meet the conservation objectives of the Coachella Valley Multispecies Habitat Conservation Plan.

Policy LU-11.4: Development Transitions. Encourage natural transitions between development projects in the conservation areas in keeping with the natural state of the environment. Avoid staggered and unnatural borders along conserved areas.

Policy LU-11.5: Flood Control. Encourage the construction/improvement of necessary flood control facilities within the conservation area in a manner sensitive to natural habitat.

GOAL LU-13: ANNEXATION OF UNINCORPOATED LANDS THAT BENEFITS THE CITY

Policy LU-13.1: Level of Service. Require that residents in newly annexed receive the same level of service as current residents.

Policy LU-13.2: Undue Fiscal Burden. Ensure that annexation decisions do not create an undue fiscal burden on the City.

Policy LU-13.3: Future Growth. Ensure that annexation provides guidance for future growth plans and policy decisions made by the major utility providers.

Community Design

GOAL LU-13: CITYWIDE DESIGN AND DEVELOPMENT THAT ENHANCES THE COMMUNITY'S DISTINCTIVE CHARACTER AND PRESERVES THE NATURAL SCENIC RESOURCES

Policy LU-13.1: Natural Landforms. Encourage development that respects natural landforms and notable vegetation on a site.

Policy LU-13.2: Appropriate Architectural Design. Encourage development that integrates desert-appropriate architecture, utilizing appropriate massing, scale, colors, and roofing.

Policy LU-13.3: Site-Sensitive Planning. Encourage the use of site-sensitive planning in new development, varying setbacks with adequate minimums, and varying designs, elevations and facade articulations.

Policy LU-13.4: Desert-Sensitive Design. Encourage architectural and landscape design that minimizes the impacts of the sun and wind for pedestrians along public rights-of-way, walkways, and large parking areas.

Policy LU-13.5: Complementary Design. Assure development proposals' designs enhance the aesthetics of the community and respect surrounding existing and planned land uses.

Policy LU-13.6: Community Safety. Encourage development design that enhances community safety through crime prevention through environmental design (CPTED)

Policy LU-13.7: Corridor and Entry Design. Require developments along major corridors and near entries to the City to use distinctive architectural, landscaping, and site design treatments.

Policy LU-13.8: Public Art. Encourage public art works within public rights-a-way, along streetscapes, at gateways, and integrated with private projects in a manner visible to the public.

Policy LU-13.9: Community Image. Encourage a unique and consistent community image that celebrates the desert environment, surrounding hillsides, and mountain views, and incorporates sustainable development approaches.

Policy LU-13.10: Visual Character. Encourage residential development that enhances the visual character, quality, and uniqueness of neighborhoods and districts.

Policy LU-13.11: Trees and Landscaping. Encourage visually attractive residential neighborhoods by expanding desert appropriate street trees and other types of streetscape and hardscape, and by encouraging the use of attractive and appropriate drought-tolerant landscaping.

GOAL LU-14: HIGH QUALITY AND CHARACTER OF THE CITY THROUGH COMPLIANCE WITH CODES AND REGULATIONS

Policy LU-14.1: Code Enforcement. Provide equitable, consistent, and effective code enforcement services that resolve complaints citywide, addressing quality of life issues that come from poorly maintained properties.

Policy LU-14.2: Compliance. Encourage voluntary compliance with the Municipal Code and other applicable laws and regulations; maintain a respectful and satisfactory relationship between the City and the community.

Policy LU-14.3: Graffiti. Continue to promote and support graffiti removal and deterrent programs.

Policy LU-14.4: Community Enhancement. Promote community enhancement and property maintenance on all properties citywide.

Policy LU-14.6: Enforce City Codes. Strictly enforce building and safety, zoning and land use regulations, and property maintenance codes to instill community pride and make Desert Hot Springs an attractive place for residents, businesses, visitors, and investors.

MOBILITY AND INFRASTRUCTURE

Complete Streets

GOAL MI-1: AN INCLUSIVE MOBILITY FRAMEWORK THAT SAFELY AND EFFICIENTLY MOVES AND CONNECTS PEOPLE, DESTINATION, VEHICLES, AND GOODS

Policy MI-1.1: Transportation Network Improvements. Establish and maintain a multimodal mobility plan which sets forth improvement plans and project prioritization for a variety of modes and users of the transportation network.

Policy MI-1.2: Community Engagement. Involve the community in transportation planning and project design decisions for improving the transportation infrastructure and mobility network.

Policy MI-1.3: Multi-Modal. Aim to develop a multimodal and/or multipurpose approach when implementing infrastructure outlined in the Mobility Plan.

Policy MI-1.4: Resilient Mobility Network. Ensure a strong all-weather, connected, and resilient emergency and recovery mobility network.

Policy MI-1.5: Roadways in Planning Communities. Require—as appropriate—that roadways and other transportation facilities within planned communities be installed and maintained as private rights-of-way. Require¬—as appropriate¬—that private roadways be developed in accordance with the standards with the City's adopted design standards and guidelines.

Policy MI-1.6: Street Classification. Designate a street's functional classification based upon its current dimensions, land use context, and role.

GOAL MI-2: STREETS THAT ARE DESIGNED AND MANAGED TO ENABLE SAFE ACCESS FOR ALL USERS: PEDESTRIANS, EQUESTRIANS, BICYCLISTS, MOTORISTS, AND TRANSIT RIDERS OF ALL AGES AND ABILITIES

Policy MI-2.1: Complete Streets. Implement complete streets strategies to accommodate all users of different ages and abilities.

Policy MI-2.2: Balanced Transportation System. Implement a balanced transportation system using complete streets principles to ensure the safety and mobility of all users.

Policy MI-2.3: Context Sensitive Improvements. Pursue context-sensitive Complete Streets strategies that recognize the City's various neighborhood and community character and geographic complexity.

Policy MI-2.4: Accessibility. Identify and evaluate the system for potential improvements to accommodate seniors and disabled persons and to comply with ADA requirements.

Policy MI-2.5: Retrofit Streets. Use opportunities such as planning for capital improvement projects or new developments to retrofit streets that have excess projected capacity.

Policy MI-2.6: Rights-of-Ways. Use available public rights-of-ways to provide wider sidewalks, bicycle lanes, trail facilities, and transit amenities.

Policy MI-2.7: Streetscape Aesthetics. Promote an enhanced aesthetic image through streetscaping, median improvements, and careful implementation of non-essential signage when revising infrastructure for complete streets.

Safer Streets

GOAL MI-3: STREETS AND SIDEWALKS THAT PRIORITIZE SAFETY

Policy MI-3.1: Safety Prioritization. Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.

Policy MI-3.2: Street Maintenance. Enhance roadway safety by maintaining the street system in good to excellent condition.

Policy MI-3.3: Adaptive Street Strategies. Repurpose underused roadway space for safety, mobility, and public space improvements using low-cost, temporary solutions.

Policy MI-3.4: Test Street Improvement. Install temporary, low-cost materials to test street improvement ideas prior to incorporating permanent designs for successful projects.

Policy MI-3.5: Neighborhood Traffic Control. Use neighborhood traffic control techniques to address excessive vehicle speed, excessive volumes, or pedestrian/vehicle safety concerns when it has been demonstrated through traffic and safety analysis that such controls are needed.

Policy MI-3.6: Traffic Calming. Use traffic-calming techniques such as roundabouts and sidewalk extensions, more frequent and innovative crosswalks, pedestrian signals, and clearly marked bicycle lanes.

Policy MI-3.7: Pedestrian Street Design. Explore enhanced pedestrian designs, including but not limited to way-finding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, automatic pedestrian signals, reduced crossing lengths, wider sidewalks, and specialty paving and seating areas.

Policy MI-3.8: Safe Routes to School. Work with school districts to implement safe routes to school plans and to expand school safety programs.

Policy MI-3.9: Safety Enhancement Zones. Build upon Safety Enhancement Zones, which deploy law enforcement resources to address traffic safety, with design and educational campaigns that overall promote traffic safety.

Policy MI-3.10: Safety Education. Develop informational and educational efforts that encourage safer motorist ad pedestrian behaviors.

Policy MI-3.11: Public Engagement. Engage with the community to understand needs and desires related to transportation.

Policy MI-3.13: Transportation Data. Use available public data sets to understand problematic intersections and streets regarding collisions with pedestrians, vehicles, and bicycles.

Pedestrian and Bicycle Network

GOAL MI-4: CONNECTED PEDESTRIAN AND BICYCLE NETWORK

Policy MI-4.1: Prioritize Walking. Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

Policy MI-4.2: Active Transportation Facilities. Coordinate all active transportation facilities. Connect to nearby regional designations and facilities to ensure a seamless bicycle and pedestrian network.

Policy MI-4.3: Connectivity. Require that new developments increase connectivity through direct and safe pedestrian and bicycling connections to the established network.

Policy MI-4.4: Pedestrian Connections through Parking Lots. Require parking lots to include clearly defined paths for pedestrians' safe and convenient access from building entrances and to adjoining public sidewalks.

Greenhouse Gas Reduction

GOAL MI-5: REDUCTION IN TOTAL VEHICLE MILES TRAVELED TO HELP IMPROVE LOCAL AIR QUALITY AND REDUCE GREENHOUSE GAS EMISSIONS

Policy MI-5.1: Reduce Vehicle Miles Traveled. Implement development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network, and maintaining the desired service levels for all modes of transportation.

Policy MI-5.2: Sustainable Transportation and Land Use Strategies. Implement sustainable transportation and land use strategies that can effectively reduce vehicle miles traveled. Consider using vehicle daily trips as the benchmark demand for determining potential levels of parking and vehicular congestion.

Policy MI-5.3: Clean Vehicles. Support the development of a network of public and private clean and/or carbon-neutral fuel vehicle charging and fueling stations.

Policy MI-5.4: Traffic Mitigation. Consider a locally collected and administered traffic mitigation fee program to guarantee that new development pays for its fair share toward improvements resulting in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.

Policy MI-5.5: Green Streets. Encourage "green street" strategies to improve stormwater quality and protect the environment, including local washes and drainages.

Policy MI-5.6: Repaving and Repairing. Consider the use of sustainable and carbon-neutral material when repaving, repairing, or constructing streets and other transportation facilities.

Transit System

GOAL MI-7: A COMPREHENSIVE TRANSIT SYSTEM THAT PROVIDES CONVENIENT AND RELIABLE TRANSIT ACCESS TO RESIDENTIAL NEIGHBORHOODS AND ACTIVITY DESTINATIONS

Policy MI-7.1: Bus Service. Improve the performance and reliability of existing and future bus service.

Policy MI-7.2: Transit Expansion. Encourage expansion of the service area and the ridership of the public transit systems operated by the Sunline Transit Agency, Native American tribes, and other external providers within the City.

Policy MI-7.3: Transit Facilities. Require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities such as trash receptacles, signage, seating, shelters, and lighting.

Policy MI-7.4: Paratransit. Continue paratransit programs, and seek to augment services from suitable partners to alleviate travel costs of seniors and/or the disabled.

Goods Movement

GOAL MI-8: EFFICIENT AND SAFE MOVEMENT 0F GOODS

Policy MI-8.1: Truck Routes. Continue to enforce the City's restrictions on truck and commercial vehicle use of non-designated routes.

Policy MI-8.2: Delivery. Consider pickup and delivery activities associated with various land uses when reviewing new development, implementing projects, and improving arterials and streets.

Policy MI-8.3: Evolving Delivery Approaches. Consider evolving delivery vehicle types, purpose, and operational hours that balance minimization of impacts and allow for more efficient deliveries.

Policy MI-8.4: Accommodating Trucks. Design roadway system to accommodate trucks and heavier vehicles between industrial areas and highway and freeway routes.

Street Design, Operations, Planning, and Maintenance Partners

GOAL MI-8: LEVERAGE PROMISING TECHNOLOGICAL ADVANCES AND CHANGES IN USE OF MOBILITY SERVICES

Policy MI-9.1: Intelligent transportation Systems. Implement intelligent transportation systems strategies—such as adaptive signal controls, fiber optic communication equipment, closed circuit television cameras, real-time transit information, and real- time parking availability information—to reduce traffic delays, lower greenhouse gas emissions, improve travel times, and enhance safety for drivers, pedestrians, and cyclists.

Policy MI-9.2: Autonomous Vehicles. Update, when warranted, existing transportation systems and policies as autonomous and automated vehicles and their attendant facilities are developed locally and regionally. Ensure that policies for autonomous vehicles and non-vehicular modes of travel are compatible with the Circulation and Infrastructure Element and other applicable General Plan sections.

Policy MI-9.3: Funding Sources. Pursue grants and other innovative funding sources to pay for transportation improvements.

Policy MI-9.4: Special Assessments. Support special assessment districts for street and traffic improvements.

Policy MI-9.5: Mobile Technology. Encourage the use of mobile or other electronic devices with similar on-demand hailing functions, particularly for seniors, the disabled, and other mobility challenged persons.

GOAL MI-10: SUSTAINABLE REVENUES TO FUND TRANSPORTATION IMPROVEMENTS AND MAINTAIN EXISTING NETWORK

Policy MI-10.1: Funding Transportation Network. Operate under a fiscally constrained model to fund and maintain the existing and planned transportation network.

Policy MI-10.2: Expand Funding. Prioritize funding to improve the built environment for people who walk, bike, take transit, and for other vulnerable roadway users, where fiscally prudent.

Policy MI-10.3: Impact Fees. Ensure that impact fees provide adequate funding for necessary transportation improvements that will benefit all travel modes, while also incentivizing development that is less dependent on expensive, new transportation.

Policy MI-10.4: Mitigation Fees. Continue to support programs that allow for traffic mitigation fees. Seek to adjust mitigation fee programs when needed so that developments pay fair-share contributions toward improvements that result in reductions in air pollutant and GHG emissions and traffic impacts generated by the development.

Policy MI-10.5: Capital Improvement Planning. Coordinate capital improvement planning and implementation inclusive of both transportation and utility infrastructure that efficiently use rights-of-ways.

Policy MI-10.6: Regional Participation. Participate and represent the City's interest in mobility-related regional planning activities and encourage acceptance of City positions on regional transportation issues.

Infrastructure

GOAL MI-11: PROVIDE FOR A SUSTAINABLE PHYSICAL INFRASTRUCTURE TO SUPPORT A DESIRABLE QUALITY OF LIFE

Policy MI-11.1: Infrastructure Service. Continue to work with service providers to ensure adequate funding, service levels, equitable planning, and maintenance of utility services and physical infrastructures.

Policy MI-11.2: Master Planning. Develop strategies to ensure the City's interests are reflected in any master planning and implementation of infrastructure and utility services.

Policy MI-11.3: Private Service. Ensure private service contracts sufficiently address the City's infrastructure needs consistent with the Infrastructure Plan.

Policy MI-11.4: Utility Management. Explore and encourage community-choice utility management and planning to supplement or add to current arrangement of utility services provisions.

Policy MI-11.5: Development Impacts. Require new development, intensification of existing developments, and annexations to disclose and adequately mitigate for impacts on utility services.

Policy MI-11.6: Capital Improvements. Continue capital improvements planning to fund and prioritize infrastructure projects.

Policy MI-11.7: Rights-of-Way. Seek opportunities to integrate mobility and infrastructure planning, particularly to efficiently use rights-of-way.

Policy MI-11.8: Infrastructure Funding. Pursue a diverse funding and management strategy that includes a variety of sustainable financing mechanisms.

Policy MI-11.9: Flood Prevention. Support flood prevention infrastructure on and around Mission Creek and Morongo Wash areas and other areas of the City prone to flooding.

Policy MI-11.10: Water Supply. Protect the quality and supply of the City's water sources.

Policy MI-11.11: Reduce Energy. Implement regulations and provide incentives that require public and private developments to reduce energy use over the long term.

Policy MI-11.12: Energy Efficiency. Encourage energy-efficient design of all new projects (public and private), including appropriate structure orientation and the use of shade trees to maximize cooling and reduce fossil fuel consumption for heating and cooling.

Policy MI-11.13: Infrastructure Planning. Incorporate infrastructure planning and construction into the development greenhouse gas emissions reduction policies and programs.

Policy MI-11.14: Wastewater Services Consultation. Consult with Missions Springs Water District and Coachella Valley Water District to ensure that regional collection and treatment facilities have sufficient capacity to meet future wastewater treatment needs.

Policy MI-11.15: Wastewater. Require developers to pay their fair share of costs for localized wastewater infrastructure upgrades to ensure that service levels are met.

Policy MI-11.16: Septic Tank Removal. Encourage removal of existing septic tanks and transition to sewer services.

Policy MI-11.17: Minimize Solid Waste Streams. Reduce the solid waste stream taken to landfills through recycling efforts, waste diversion, and zero-waste programs.

ECONOMIC DEVELOPMENT

GOAL ED-1 A ROBUST EMPLOYMENT BASE, INDUSTRIAL DIVERSITY, AND RANGE OF GOODS AND SERVICES TO MAINTAIN ECONOMIC STABILITY

Policy ED-1.1 Maximize Jobs and Revenue Generation. Encourage development that maximizes the creation of quality jobs and sustain revenue and minimizes strain on City resources.

Policy ED-1.2 Retail Development. Support retail development that meets the community's needs in appropriate locations, to prevent the leakage of local expenditures to neighboring communities.

Policy ED-1.3 Diversify Businesses. Identify and pursue diverse retail, entertainment, and tourist-serving businesses that attract spending from local residents, visitors, and residents of neighboring communities.

Policy ED-1.4 Commercial Development. Attract restaurants, entertainment, and freeway service businesses that capture tourist/visitor/freeway spending. Encourage neighborhood serving commercial development within the community's core areas.

Policy ED-1.5 Employment-Generating Industry Clusters. Identify business and locational opportunities for establishing employment-generating industry clusters such as health care, professional office, and warehouse/fulfillment centers.

Policy ED-1.6 Diversify Local Economy. Attract companies to Desert Hot Springs that diversify the local economy and provide jobs that reduce out-commuting. Increase the number of professional and technical jobs.

Policy ED-1.7 Wellness and Hospitality Outreach. Engage regularly with local wellness hospitality businesses to understand and better respond to their specific economic development needs.

Policy ED-1.8 Wellness and Hospitality Economic Development. Identify and pursue economic development strategies that address the needs of wellness hospitality businesses and that offer an expanded range of commercial and retail businesses to wellness hospitality clients/visitors.

Policy ED-1.9 Cannabis Cultivation. Develop a comprehensive strategy to position the City as the premier center for cannabis cultivation and production businesses and enterprises that support/complement the developing cannabis industry in the Coachella Valley.

GOAL 2 A POSITIVE BUSINESS CLIMATE AND RELIABLE INFRASTRUCTURE THAT FOSTER QUALITY DEVELOPMENT

Policy ED-2.1 Workforce Development. Encourage and expand workforce development and technical training/education for the local youth and adult populations.

Policy ED-2.2 Economic Development. Promote economic development through focused land use planning, flexible development standards, and targeted circulation and infrastructure improvements.

Policy ED-2.3 Streamline Permit Process. Maintain a development permitting process that provides clarity, consistency, and assistance opportunities for new businesses and existing businesses looking to expand.

Policy ED-2.4 Public and Private Investment. Coordinate public and private investment along disinvested and emerging commercial and industrial areas.

Policy ED-2.5 Service and Infrastructure Improvements. Identify public services and public infrastructure improvements necessary to encourage new commercial and industrial development.

Policy ED-2.6 New Technologies. Support the development and deployment of new technologies to support existing and future industry clusters in the region.

Policy ED-2.7 Diverse Housing Options. Encourage the development of high-quality, diverse housing types that meet the needs of local and regional workers.

Policy ED-2.8 Cannabis Business Regulation. Maintain business regulations that provide for the development of the cannabis industry in a safe and responsible manner.

GOAL 3 EFFECTIVE MARKETING AND PROMOTION TO ATTRACT AND RETAIN BUSINESSES, VISITORS, AND CONSUMERS

Policy ED-3.1. Market Health and Wellness Tourism. Support and expand marketing efforts that emphasize the City's unique health and wellness tourism opportunities.

Policy ED-3.2 Market Natural Preservation Areas and National Parks. Expand marketing of the City as a gateway to regional historical and natural resources and amenities, including the Big Morongo Canyon Preserve, Sand to Snow National Monument, Joshua Tree National Park, Mission Creek Preserve, and Whitewater Preserve.

Policy ED-3.3 Business Development Awareness. Raise awareness of local business development opportunities, incentives, and assistance available.

Policy ED-3.4 Marketing, Promotion, and Economic Development. Fund and expand marketing, promotion, and economic development efforts. Coordinate those efforts with the local and regional business development and marketing partners, such as the Coachella Valley Association of Governments (CVAG); the Indio, Coachella, La Quinta, Palm Desert, and Coachella Valley Hispanic Chambers of Commerce; the Coachella Valley Economic Partnership (CVEP); and the East Valley Coalition (EVC).

HOUSING

GOAL H-1: PROVIDE ADEQUATE SITES FOR HOUSING DEVELOPMENT TO ACCOMMODATE A RANGE OF HOUSING BY TYPE, SIZE, LOCATION, PRICE, AND TENURE

Policy H-1.1 Range of Residential Types. Implement land use policies and standards that allow for a range of residential densities and products that will enable households of all types and income levels the opportunity to find suitable ownership or rental housing.

Policy H-1.2 Special Housing Needs. Encourage the provision for housing which meets the needs of residents with special housing needs, including the elderly, disabled, developmentally disabled, large families, the homeless, and students.

Policy H-1.3 Residential Mixed Use. Encourage development of residential and mixed uses in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.

GOAL H-2: ASSIST IN THE DEVELOPMENT OF ADEQUATE HOUSING TO MEET THE NEEDS OF EXTREMELY LOW-, VERY LOW-, LOW-, AND MODERATE-INCOME HOUSEHOLDS

Policy H- 2.1 Facilitate Affordable Housing. Facilitate housing developments that is affordable to extremely low-, very low-, low-, and moderate-income households by providing technical assistance, regulatory incentives and concessions, and financial resources as funding permits.

Policy H-2.2 Housing Production. Encourage both the private and public sectors to produce or assist in the production of housing, with particular emphasis on housing affordable to persons with disabilities, elderly, large families, female-headed households with children, and people experiencing homelessness.

Policy H-2.3 Subsidies and Programs. Continue to utilize federal and State subsidies and County programs to the fullest extent to meet the needs of lower-income residents, including extremely low-income residents.

Policy H-2.4 Homelessness. Support regional efforts to address homelessness, including the County of Riverside Continuum of Care.

GOAL H-3: ADDRESS, AND WHERE POSSIBLE, REMOVE ANY POTENTIAL GOVERNMENTAL CONSTRAINTS TO HOUSING PRODUCTION AND AFFORDABILITY

Policy H-3.1 Residential Development Standards. Review and adjust as appropriate residential development standards, regulations, ordinances, departmental processing procedures, and residential fees related to rehabilitation and construction that are determined to be a constraint on the development of housing.

Policy H-3.2 Development Approval Process. Educate applicants on how to navigate the development approval process and otherwise facilitate building permit and development plan processing for residential construction.

Policy H-3.3 Timely Permit Process. Facilitate timely development plan and building permit processing for residential construction.

Policy H-3.4 Infrastructure Needs. Prioritize infrastructure improvements and public services provision in high-need areas.

GOAL H-4: CONSERVE AND IMPROVE THE CONDITION OF DESERT HOT SPRINGS' EXISTING HOUSING STOCK

Policy H-4.1 Code Enforcement. Enforce adopted code requirements that set forth acceptable health and safety standards for the occupancy of existing housing.

Policy H-4.2 Substandard Rehabilitation. Advocate and facilitate the conservation and rehabilitation of substandard residential properties by homeowners and landlords.

Policy H-4.3 Substandard Unit Compliance. Utilize code enforcement resources to bring substandard units into compliance with City codes and to improve overall housing conditions in Desert Hot Springs.

Policy H-4.4 Property Education. Educate the public regarding the need for property maintenance and rehabilitation, code enforcement, crime watch, neighborhood conservation and beautification, and other related issues.

Policy H-4.5 Rehabilitation Programs. Continue to facilitate access to rehabilitation programs that provide financial and technical assistance to low- and moderate-income households for the repair and rehabilitation of existing housing.

GOAL H-5: CONTINUE TO PROMOTE EQUAL HOUSING OPPORTUNITY IN THE CITY'S HOUSING MARKET REGARDLESS OF AGE,

DISABILITY/MEDICAL CONDITION, RACE, SEX, MARITAL STATUS, ETHNIC BACKGROUND, SOURCE OF INCOME, AND OTHER FACTORS

Policy H-5.1 Housing Discrimination. Prohibit discrimination in the sale, rental, or financing of housing based on race, color, ancestry, religion, national origin, sex, sexual orientation, gender identity, age, disability/medical condition, familial status, marital status, source of income, or any other arbitrary factor.

Policy H-5.2 Fair Housing Laws. Assist in the enforcement of fair housing laws by providing support to organizations that can receive and investigate fair housing allegations, monitor compliance with fair housing laws, and refer possible violations to enforcing agencies.

Policy H- 5.3 Equal Access. Provide equal access to housing for special needs residents such as people experiencing homelessness, elderly individuals, and persons with disabilities.

Policy H-5.4 Accessibility. Promote the provisions of disabled-accessible units and housing for persons with mental and physical disabilities.

Policy H-5.5 Development Applications Without Prejudice. Ensure that all development applications are considered, reviewed, and approved without prejudice to the proposed residents, contingent on the development application's compliance with all entitlement requirements.

Policy H-5.6 Persons with Disabilities. Accommodate persons with disabilities who seek reasonable waiver or modification of land use controls and/or development standards pursuant to procedures and criteria set forth in the Zoning Ordinance.

OPEN SPACE AND COMMUNITY RESOURCES

Natural Habitat

GOAL OS-1: PROTECTED HABITAT AND NATURAL WASHES THAT ARE PROTECTED, MANAGED, AND PRESERVED

Policy OS-1.1: Natural Habitat and Washes. Protect the natural habitat within Mission Creek, Morongo Wash, and Long Canyon Wash.

Policy OS-1.2: Threatened and Endangered Species. Protect threatened, endangered, or other special status plant and animal species.

Policy OS-1.3: Future Development. Minimize the impact of future development on sensitive habitat and species.

Policy OS-1.4: Development Regulations. Apply land use development regulations to limit development of sensitive biological areas, including biological linkages and conservation areas.

Policy OS-1.5: Biological Resources Assessment. Require a biological resources assessment, as appropriate, for any development proposal or infrastructure project located on undeveloped/ undisturbed land.

Policy OS-1.6: Development Transition. Require development adjacent to conservation areas to respect the requirements of the Coachella Valley Multispecies Habitat Conservation Plan conservation areas and to provide an appropriate transition between conservation areas and developed areas.

Policy OS-1.7: Limited Public Access. Encourage appropriate access into conservation areas, where allowed by the Coachella Valley Multispecies Habitat Conservation Plan, to allow residents and tourists use for educational and passive recreational uses.

Policy OS-1.8: Compatible Growth. Allow for appropriate and compatible growth and development that is consistent with applicable laws within the Coachella Valley Multispecies Habitat Conservation Plan areas.

Policy OS-1.9: Project Review. Provide a less costly, more efficient project review process which results in greater conservation values than project-by-project, species-by-species review.

Policy OS-1.10: Clear Expectation and Regulatory Predictability. Provide clear expectations and regulatory predictability for persons carrying out activities within the Coachella Valley Multispecies Habitat Conservation Plan areas.

Policy OS-1.11: Maximize Connectivity. Maximize connectivity among conservation areas and avoid habitat fragmentation within to conserve biological diversity, ecological balance, and connected populations identified in the Coachella Valley Multispecies Habitat Conservation Plan.

Policy OS-1.12: Biologically Sensitive Habitat. Identify and designate biologically sensitive habitat areas to preserve habitat and contribute to the recovery of species identified in the Coachella Valley Multispecies Habitat Conservation Plan.

Policy OS-1.13: Natural Habitat and Washes. Minimize adverse impacts from off road vehicle use, illegal dumping, edge effects, exotic species, and other disturbances in accordance with the Coachella Valley Multispecies Habitat Conservation Plan.

Policy OS-1.15: Broaden Cooperation. Consult with local, county, State, and federal agencies, as well as private non-profits, and cooperate in efforts to maintain and broaden habitat conservation, especially where essential for the preservation of sensitive, rare, and endangered species and to increase open space linkages.

Policy OS-1.16: Consult with Flood Control Agencies. Consult with the Riverside County Flood Control and Water Conservation District and U.S. Army Corps of Engineers to plan, design, and build flood control facilities that balance the preservation of the natural habitat and minimizing flooding hazards.

Policy OS-1.17: Agency Consultation. Consult with the Coachella Valley Associated Governments and other agencies to implement the Coachella Valley Multispecies Habitat Conservation Plan.

Policy OS-1.18: CVMSHCP Education. Consult with the Coachella Valley Association of Governments in the development and provision of education materials to developers and the public on the Coachella Valley Multispecies Habitat Conservation Plan and how they can respect the City’s natural open space areas to meet the goals of the Coachella Valley Multispecies Habitat Conservation Plan.

Resources Conservation

GOAL OS-2: AIR QUALITY THAT IS HEALTHY FOR RESIDENTS AND THE ENVIRONMENT

Policy OS-2.1: Air Pollution Reduction. Seek to reduce air pollution through the implementation of existing regulations and the creation of new regulations where needed.

Policy OS-2.2: Climate Change Laws. Find creative means to comply with State laws addressing climate change.

Policy OS-2.3: Minimize Air Quality Impacts. Minimize the air quality impacts of new development projects on established uses.

Policy OS-2.4: Air Quality Goals. Ensure that land use and transportation plans support regional air quality goals, with new development projects reducing vehicle miles traveled and vehicle trips.

Policy OS-2.5: Education Programs. Partner with regional agencies to establish public education programs that provide information on ways to reduce and control emissions and make clean air choices.

Policy OS-2.6: Alternative Fuels. Prioritize alternative fuel vehicles for City use. Incorporate alternative fuel charging stations into public and private development projects.

Policy OS-2.7: Coordination. Assure the City provides updated data to the Southern California Regional Governments to assist in updates to the Sustainable Communities Strategies and Regional Transportation Plan.

Policy OS-2.8: Air Quality and Climate Change Analyses. Require detailed air quality and climate change analyses and mitigation plans for all applications that have the potential to adversely affect air quality.

GOAL OS-3: A SUSTAINABLE, RELIABLE, AND CLEAN WATER SUPPLY

Policy OS-3.1: Water Conservation. Require water conservation measures in new development, equivalent to CalGreen Tier One or similar standards.

Policy OS-3.2: Water Conservation Incentives. Encourage residents and businesses to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.

Policy OS-3.3: Runoff Pollution. Encourage use of creative and environmentally sustainable ways of reducing groundwater and urban runoff pollution, including the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Control Board.

Policy OS-3.5: Water District Consultation. Continue to consult with Mission Springs Water District on water conservation efforts, policies, and demonstration projects, such as expansion of a recycled water system.

Policy OS-3.6: Landscaping. Require climate-appropriate landscaping for new development, and limit turf to be used as accent only.

Policy OS-3.7: Gray Water. Encourage and allow for the use of gray water systems in new and existing developments for re-use of onsite water from washbasins, showers, and tubs to be used in toilet flushing and irrigation.

Policy OS-3.8: Recycled Water. Where feasible, require new industrial and commercial developments to install a dual pipe water system to hook up to future Mission Springs Water District recycled water supply, when available, for common area irrigation and for individual property's irrigation.

Policy OS-3.9: Groundwater Contamination. Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.

Policy OS-3.10: Site Drainage. Require that new development incorporate features into site drainage plans that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events. Such features may include additional landscape areas, parking lots with bio-infiltration systems, permeable paving designs, and stormwater detention basins.

GOAL OS-4: INCREASED ENERGY EFFICIENCY AND CONSERVATION

Policy OS-4.1: Energy Conservation. Seek to incorporate energy conservation measures into new development projects.

Policy OS-4.2: Education and Outreach. Continue community education and outreach regarding energy conservation.

Policy OS-4.3: Rooftop Solar Projects. Streamline solar panel permits for small-scale residential and commercial business rooftop projects by removing discretionary planning permits or allowing approval over the counter.

Policy OS-4.4: Solar Energy Systems. Encourage the use of solar energy systems or any other technologies that similarly reduce the use of power from the grid in residential and commercial uses.

Policy OS-4.5: Solar Farms. Allow solar energy farms that minimize disturbing the desert environment.

Policy OS-4.6: City Vehicle Replacement. When City vehicles are replaced, assure that they are electric or alternative fuel vehicles when possible.

Policy OS-4.7: Alternative Electricity Options. Continue to explore, assist, and encourage alternative electricity options such as wind or small-scale solar energy facilities.

Policy OS-4.8: Regional Participation. Continue to participate in regional efforts to address energy conservation.

Policy OS-4.9: Windmill Development. Review all public and private requests for land use designation changes to assure that no change hinders the City's ability to allow and facilitate windmill development, consistent with the City's standards.

GOAL OS-5: REDUCTION IN OVERALL WASTESTREAM AND DIVERSION FROM LANDFILLS

Policy OS-5.1: Recycling Services. Provide residents and businesses with comprehensive and efficient solid waste recycling services that, at a minimum, meet State diversion mandates.

Policy OS-5.2: Waste Reduction. Continue to require strict construction waste reduction through programs, education, and regulations.

GOAL OS-6: SUSTAINABLE DEVELOPMENT APPROACHES

Policy OS-6.1: Sustainable Construction. Encourage sustainable construction practices and the use of energy-saving technology within buildings. Consider establishing a green building program that draws from the LEED (Leadership in Energy & Environmental Design) standards.

Policy OS-6.2: Green Building. Require LEED or similar building efficiency certifications for all new public facilities and buildings. Encourage similar green building certifications for private development projects.

Aesthetic Resources

GOAL OS-7: PROTECTED VIEWSHEDS, SCENIC CORRIDORS, AND NEIGHBORHOOD AESTHETICS

Policy OS 7.1: Scenic Corridors. Limit the impact of development on scenic corridors, vistas, and resources through enforcement of development regulations. Preserve scenic routes in accordance with Caltrans' Scenic Highways Plan.

Policy OS 7.2: Nighttime Views. Preserve the quality of nighttime views through required shielding and downward-facing lights.

Policy OS 7.3: Drought-Tolerant Landscaping. Review landscape plans and require that climate-appropriate landscaping be used throughout the City in public and private landscape plans.

Policy OS 7.4: Street Trees. Encourage new public street tree plantings in established neighborhoods, and require all new development to provide climate-appropriate street trees.

Policy OS 7.8: Scenic Vistas. Seek opportunities to create public open space areas with scenic vistas that all can enjoy.

Policy OS 7.9: Hillside Guidelines. Develop guidelines and standards for development on hillsides and ridgelines within the City. Coordinate with adjacent jurisdictions on standards for development on hillsides and ridgelines that are part of the City's viewshed. These guidelines and standards should be included in an amendment to the City's Hillside Grading Ordinance.

Policy OS 7.10: Dark Sky Regulations. Adopt dark sky regulations that limit the amount and type of lighting within developments.

Cultural Resources

GOAL OS-8: CULTURAL AND HISTORIC RESOURCES ARE PRESERVED, PROTECTED, AND CELEBRATED

Policy OS-8.1: Historic Preservation. Continue to assess the historical significance of additional properties, and encourage the preservation of public and private buildings which are of local, historical, or cultural importance.

Policy OS-8.2: Local Historic Groups. Support the work of local historic groups to identify, designate, and preserve local structures and sites of historic interest and importance.

Policy OS-8.3: Marketing. Market and promote historic and cultural resources in the community, including the Cabot's Pueblo Museum, as a means of bolstering economic development.

Policy OS-8.4: Cultural Preservation Balance. Balance cultural preservation goals with the interests of private property owners.

Policy OS-8.5: Archaeological Resources. Assure that all development properly addresses the potential for subsurface archeological deposits by requiring archaeological surveys during the development review process as appropriate.

Policy OS-8.6: Cultural Resources. Review all development and redevelopment proposals for the possibility of cultural resources. This may include the need for individual cultural resource studies, including subsurface investigations.

Policy OS-8.7: Paleontological Resources. Coordinate CEQA review of proposed developments as either being identified as having a High A or Undetermined potential for unearthing paleontological resources.

HEALTH AND WELLNESS

Health and Wellness

GOAL HW-1. A COMMUNITY THAT PRIORITIZES PHYSICAL, EMOTIONAL, AND MENTAL WELLNESS

Policy HW-1.1: Adequate Healthcare Facilities. Support development of health care facilities that meet the needs of a diverse demographic.

Policy HW-1.2: Health Care Providers. Consult with health care providers to develop additional healthcare facilities that meet residents' needs. Seek State and Federal funding programs for assistance.

Policy HW-1.3: Proactive Recruitment. Include the proactive recruitment of a 24-hour emergency medical treatment facility as part of the City's economic development program.

Policy HW-1.4: Alternative Access. Coordinate with transportation service providers and local healthcare providers to maintain accessibility to health care facilities and services so that residents—and seniors in particular —will be served quickly and efficiently.

Policy HW-1.5: Aging in Place. Support and expand senior housing development and supportive in-house assisted facilities for City residents. Coordinate such senior-oriented uses with the availability or construction of multimodal and universal access facilities described in the Circulation Element and with other aging-focused components of the General Plan.

Policy HW-1.6: Multi-Generational Households. Ensure that zoning regulations accommodate the needs of multi-generational households.

Policy HW-1.7: Childcare. Encourage development of childcare facilities within new and existing residential communities and in new commercial developments.

Policy HW-1.8: Mental Health. Seek development of mental health care resources to serve the City's population in need of nearby, accessible services.

Policy HW-1.9: Spa and Resort Industry. Continue to support and encourage the City's spa and resort industry.

Policy HW-1.10: Amenities that Promote Healthy Living. Encourage developments to provide access, facilities, and amenities that connect to trails, encourage walking, and/or provide for other facilities that promote healthy living.

Policy HW-1.11: Health Benefits Education. Educate the community about the health benefits of physical activity, nutrition, and other healthy lifestyle choices.

Policy HW-1.13: Food System. Maintain a sustainable, healthy, equitable, and thriving local food system.

Policy HW-1.13: Healthy Food Options. Encourage the development of food retailers and restaurants that provide healthy food options.

Policy HW-1.14: Homeless Service Providers. Work in partnership with service providers, agencies, and faith-based organizations that provide homeless services throughout the Coachella Valley to meet the housing and services needs of the local homeless population.

Policy HW-1.15: Homeless Resources. Work to assist people gain access to the right resources, programs, and services to remain housed.

Policy HW-1.16: Homeless Support. Advocate for community support, social policy, and systemic changes necessary to succeed in reducing homelessness.

Policy HW-1.17: Environmental Justice. Help low-income and minority populations understand the potential for adverse pollution, noise, odor, vibrations, lighting, and glare when new commercial and industrial developments are proposed.

Policy HW-1.18: Zoning Regulations. Require that zoning regulations provide adequate separation and buffering of residential from industrial uses.

Policy HW-1.19: Public Engagement. Engage residents, businesses, and organizations in the planning process regarding development projects that emit hazardous materials.

Parks, Recreation, and Trails

GOAL HW-2: RECREATION FACILITIES THAT MEET THE DIVERSE DEMANDS OF THE RESIDENTS OVER TIME

Policy HW-2.1: Park Access. Distribute parks and/or recreation community facilities so that residents live within a 20-minute walking distance to such facilities.

Policy HW-2.2: Park Standard. Maintain a park provision standard of three park acres per 1,000 residents to meet the recreational needs of the community.

Policy HW-2.3: Recreational Programming Expansion. Balance physical activity and passive activity through the expansion of recreational programming and facilities.

Policy HW-2.4: New Park Amenities. Require that new parks provide a variety of amenities that meet the diverse needs of the community.

Policy HW-2.5: Pocket Parks. Develop pocket parks within residential neighborhoods lacking walking access to park facilities.

Policy HW-2.6: Large Park Amenities. Provide a range of amenities in larger neighborhood parks and community parks to varied users.

Policy HW-2.7: Universal Access. Include enhanced accessibility in the planning of park areas in accordance with the Americans with Disabilities Act, including increased wheelchair accessibility, restrooms, and other requirements needed for the elderly and physically handicapped.

Policy HW-2.8: Sustainable and Context-Drive Park Design. Design all parks to include sustainable design elements that can withstand and thrive in the desert environment, and include features that minimize the impacts of sun, heat, and wind.

Policy HW-2.9: Joint-Use Facilities. Evaluate the feasibility of establishing active joint-use agreements with all private non-profit organizations that have recreation facilities, such as playfields and multi-purpose rooms.

GOAL HW-3: RECREATION FACILITIES AND EVENTS THAT SUPPORT AND ATTRACT TOURISM AND PROMOTE CONSERVATION

Policy HW-3.1: Cultural Events. Introduce new and enhance established community events that highlight the City's unique history, diverse culture, and art.

Policy HW-3.2: Events. Support events such as cultural fairs, music festivals, art walks, food festivals, and farmers' markets. In addition to highlighting the intended event theme, these events should provide a forum for local businesses to be exhibited and promoted.

Policy HW-3.3: Outdoor Gathering Area. Seek to develop a large public outdoor gathering area that includes a large versatile turf area with a performance area or stage.

Policy HW-3.4: Park Master Plan. Regularly update the Parks Master Plan to allow for planning that provides parks facilities to serve the community.

Policy HW-3.5: Expand Recreational Programming. Pursue financial resources to expand recreational programming and staffing that meet community needs.

GOAL HW-4: SUSTAINABLE FINANCING FOR THE CONSTRUCTION AND MAINTENANCE OF PARKS

Policy HW-4.1: Park Grants. Pursue grant programs sponsored by public agencies, private groups, and foundations for park or open space purchases, development, and maintenance.

Policy HW-4.2: Partnerships. Evaluate partnership and annexation into the Desert Recreation District to finance construction/rehabilitation and maintenance of existing and new parks that would serve City residents.

Policy HW-4.3: Sustainability. Design, construct, and maintain park areas in a manner that guarantees long-term sustainability and park maintenance.

Policy HW-4.4: Volunteer Programs. Coordinate the establishment of an “Adopt a Park” or comparable program, allowing volunteer groups and individuals such as the Rotary Club, the Hotelier’s Association, utility companies, and others to take charge of maintenance, funding, and equipment needs for a developing park.

Policy HW-4.5: Fiscal Impacts. Evaluate, as part of the development review process, the fiscal impacts of a proposed park’s construction and continued maintenance on the City and/or a proposed homeowners association.

GOAL HW-5: RECREATION PROGRAMMING THAT MEET THE DEMANDS OF CITY RESIDENTS

Policy HW-5.1: Flexible Programming. Provide a range of flexible recreational programming that can be adjusted to community needs.

Policy HW-5.2: Diversity. Support diverse recreation programs to foster and instill public health, responsibility, ethics, values, and civic involvement.

Policy HW-5.3: Senior Programming. Support senior service agencies in their effort to develop recreational, educational, and supportive programs.

Policy HW-5.4: Youth Services. Provide coordinated community-wide youth services that are available to and reach all youth.

GOAL HW-6 COMPREHENSIVE AND CONNECTED TRAIL SYSTEM

Policy HW-6.1: Connections to National Parks. Enhance and promote connections within the City to Sands to Snow National Monument, Joshua Tree National Park, and other surrounding natural areas and scenic resources.

Policy HW-6.2: New Trail Connectivity. Create new trails that connect to Big Morongo Wash Trail, Mission Creek, and other hiking trails and preserve areas.

Policy HW-6.3: Interpretive Trail System. Establish an interpretive trail system in the City’s mountainous and other hiking and walking areas that educates users and enhances their appreciation for these and other wildlife communities in the City and vicinity.

Policy HW-6.4: Urban Trails. Develop an expanded urban trail plan that provides greater pedestrian and cycling access to the City's civic and commercial development, and that addresses safe interaction of trail users with automobile traffic lanes.

Policy HW-6.5: Flexible Trails. Plan and provide for all types of trail use—pedestrian, equestrian, and bike—in a manner that minimizes user conflicts.

Policy HW-6.6: Trail Expansion. Require dedication or easements and construction of trails as part of the development review process, where appropriate.

Policy HW-6.7: Trail Support Features. Develop support features to enhance the trail experience, such as rest stations and interpretative signage.

Policy HW-6.8: Trailheads. Develop full-service trail heads that include parking areas, wayfinding and interpretive signage, and hiking amenities.

Life-Long Learning Plan

GOAL HW-7: DIVERSE EDUCATIONAL FACILITIES THAT SERVE THE NEEDS OF DESERT HOT SPRINGS RESIDENTS

Policy HW-7.1: Schools to Meet Growth. Work with the Palm Springs Unified School District to provide school facilities that serve the growing population of youth in Desert Hot Springs.

Policy HW-7.2: School District Coordination. Coordinate with the Palm Springs Unified School District and private developers for the provision of land for construction of schools placed at locations in the community convenient to all neighborhoods and students.

Policy HW-7.3: Enhanced Education Opportunities. Provide enhanced educational opportunities for the residents as part of the City's continuing effort to cooperate and coordinate with the Palm Springs Unified School District.

Policy HW-7.4: Job Training. Consider joint ventures with College of the Desert and/or other higher education entities to implement comprehensive education programs that promote continuing education and career advancement related to job training.

Policy HW-7.5: Central Resource. Promote the library as an important central resource for informational materials, lifelong learning, and personal development.

Policy HW-7.6: Library Programming. Coordinate with the local branch library for the programming of youth education programs.

Policy HW-7.7: Library Partnerships. Encourage library partnerships with the Palm Springs Unified School District to optimize the joint use of school facilities for community educational use.

Policy HW-7.8: Enhance Library Facilities. Coordinate efforts to expand and enhance library facilities, including library space, more books, expanded electronic and internet facilities, increased staffing, operation hours, outreach, and education programs.

Policy HW-7.9: College Campus. Work with local colleges to locate a satellite campus and/or higher education facility in Desert Hot Springs.

SAFETY AND NOISE

Fire and Police Services

GOAL SN-1: HIGH LEVEL OF FIRE PROTECTION SERVICES FOR THE COMMUNITY, INCLUDING ADEQUATELY ADDRESSING WILDFIRES

Policy SN-1.1: Police and Fire Protection. Provide a high level of police and fire protection by providing a level of funding necessary to assure that levels are maintained per City Council policy and additional staff is provided to address growth.

Policy SN-1.2: Level of Service. Periodically review the level, quality, innovation, and cost-effectiveness of police and fire protection services, including contract services, and remain flexible when considering the most effective means of providing these services to the community.

Policy SN-1.3: New Development Impacts. Require all new and improved developments to be reviewed for their impact on safety and the provision of police and fire protection services.

Policy SN-1.4: Development Proposal Review. Require development proposals to be transmitted to the Police Department and the Fire Marshal for review. Any input shall be incorporated into project design or conditions of approval, as appropriate.

Policy SN-1.5: Vehicle Access. Require that emergency, police, fire, and paramedic vehicle access be provided with all new developments to the satisfaction of the Fire Marshal and Police Chief.

Policy SN-1.6: Sufficient Fire Flows. Coordinate with the Water District to assure sufficient water pressures are available to provide adequate fire flows for all existing and proposed development.

Policy SN-1.7: Adequate Fire Resources. Ensure that the City has adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

Policy SN-1.8: Fire Enforcement. Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

Policy SN-1.9: Onsite Wildfire Prevention Measures. Require special on-site fire protection measures to be specified during project review for areas where the fire hazard potential exist, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, or excessively dry brush.

Policy SN-1.10: Fire Department Inspections. Require commercial, industrial, and institutional buildings and multi-family development to be periodically inspected by the Fire Department to assure compliance with applicable fire codes and to educate building and development managers on fire safety issues.

Policy SN-1.11: Fire Suppression Systems. Regulate and enforce the installation of fire protection water system standards for all new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.

Policy SN-1.13: National Fire Guidelines. Strive to comply with and maintain National Fire Protection Association guidelines, including Standard 1710 requirements for emergency response times and staffing of fire fighter crews responding to emergencies.

Policy SN-1.13: Consistent Level of Service as City Grows. The City shall make every effort to assure the same or greater level of fire protection as provided to City residents as City limits are expanded.

Policy SN-1.14: Additional Fire Station. Pursue new fire stations facilities in areas of high needs and development growth.

Policy SN-1.15: Fire Department Review. Continue to involve the Fire Department in the development review process to ensure that fire safety is addressed in new and modified developments.

Policy SN-1.16: Minimize Development in Severity Zones. Minimize new residential developments within Very High Fire Hazard Severity Zones.

Policy SN-1.17: Essential Public Facilities. Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards, where feasible.

Policy SN-1.18: Government Code. New development will adhere to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones.

Policy SN-1.19: Fire Safe Regulations. New development will adhere to the latest Board of Forestry and Fire Protection Fire Safe Regulations.

Policy SN-1.20: Building and Fire Codes. New development will adhere to all requirements in the California Building Code and California Fire Code.

Policy SN-1.21: Fire Protection Plan. Require new development within Very High Fire Hazard Severity Zones to submit a fire protection plan that addresses landscape/fuel modification installation, incorporate open areas to complement defensible spaces, recognize possible refuge areas, and identify multiple ingress and egress routes.

Policy SN-1.22: Fire Risk Pre-Plans. Require new development within Very High Fire Hazard Severity Zones to prepare pre-plans for fire risk areas that address resident evacuation and to effectively communicate those plans, including identifying the location and direction of evacuation routes.

Policy SN-1.23: Roadside Fuel Reduction Plan. Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

Policy SN-1.24: Defensible Space Clearances. Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.

Policy SN-1.25: Non-Conforming Development. Conduct a survey, as feasible, of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring them into compliance with the most current building and fire safety standards.

Policy SN-1.26: At-Risk Occupants. Conduct a survey, as feasible, of existing residential structures within the Very High Fire Hazard Severity Zones to determine at-risk occupants such as elderly care facilities, shut-ins, or schools that would pose a significant concern for evacuation and/or shelter-in-place during a wildfire event; develop a plan, as feasible, to accommodate these target occupants.

GOAL SN-2: A SAFER COMMUNITY THROUGH HIGH LEVEL OF POLICE PROTECTION SERVICES FOR THE COMMUNITY

Policy SN-2.1: Adequate Police Resources. Maintain adequate resources (stations, personnel, and equipment) to enable the Police Department to meet response time standards, keep pace with growth, and provide high levels of service.

Policy SN-2.2: Staff Ratio. Strive to maintain a police staffing ratio of at least 1.5 sworn officers per 1,000 residents.

Policy SN-2.3: Police Response Times. Strive to meet a three-minute response time for priority one and priority two calls for service.

Policy SN-2.4: Police Training. Maintain a well-trained police force to meet changing needs and conditions by continually updating and revising public safety techniques and providing for effective evaluation and training of personnel.

Policy SN-2.5: Public Safety Plan. Update the City's Public Safety Plan every five years to assess the City's safety needs, evaluate challenges for the following five years, and identify areas of opportunity and priority for the execution of plan 0bjectives.

Policy SN-2.6: Police Facilities. Locate police sub-stations and offices in those areas of the City particularly vulnerable to crime.

Policy SN-2.7: Crime Prevention Through Environmental Design. Promote the concepts of crime reduction through thoughtful design of projects, specifically using the concepts of Crime Prevention Through Environmental Design (CEPTED). These should include at a minimum using boundaries—perceived and real—to control access to sites, focusing more eyes-on-the-street by promoting designs with windows looking onto streets and using front entries, and promoting individual design to foster sense of ownership.

Policy SN-2.8: City Beautification. Work with law enforcement agencies and community groups to promote litter pick-up, graffiti removal, basic repairs, and other neighborhood beautification efforts.

Policy SN-2.9: Communication with Various Local Groups. Provide regular opportunities for communications between the Police Department and community members, non-profit organizations, local agencies, volunteer groups, homeowner and business associations, and similar groups to become a more informed community related to community policing.

Policy SN-2.10: Neighborhood Watch Program. Continue and encourage Neighborhood Watch programs community wide.

Policy SN-2.11: Citizen's on Patrol Program. Assist the Police Department in promoting the Citizen's on Patrol Program and similar programs.

Policy SN-2.13: Gang Activity Monitoring. Continue to monitor the status of gang activity in the community and, as appropriate, develop and/or implement gang intervention and education programs.

Policy SN-2.13: Police Support Programs. Support and encourage participation in the police youth programs as an effective means of introducing youth to the importance and benefits of local law enforcement.

Policy SN-2.14: Integrating Cannabis Businesses. Continue to explore new ways to integrate cannabis-related businesses into the City in a manner that is safe and does not create negative impacts.

Policy SN-2.15: Graffiti Removal. Continue an aggressive campaign to remove graffiti quickly to reduce crime.

Policy SN-2.16: Traffic Safety. Encourage traffic safety programs to reduce traffic accidents and increase pedestrian safety on all streets.

Hazardous Materials

GOAL SN-3: LOWER RISK OF EXPOSURE OF LIFE, PROPERTY, AND THE ENVIRONMENT TO HAZARDOUS AND TOXIC MATERIALS AND WASTE

Policy SN-3.1: Hazardous Materials Discharge. Prevent unauthorized discharges of hazardous materials and promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials.

Policy SN-3.2: Use and Storage of Hazardous Materials. Require the general location and siting of facilities which involve the use and/or storage of hazardous, highly flammable, or explosive materials to be designed in a manner that assures the highest level of safety in strict conformance with fire codes and all other applicable codes and regulations.

Policy SN-3.3: Hazardous Waste Siting. Discourage the siting of facilities that utilize hazardous materials or generate hazardous wastes within one-quarter mile of any private or public school or use that supports sensitive receptors. Mitigation shall be incorporated into any project that may expose sensitive receptors to hazardous materials or waste to avoid or minimize health impacts.

Policy SN-3.4: Hazardous Waste Generation. Encourage businesses, particularly cannabis-related businesses, to utilize practices and technologies that will reduce the generation of hazardous wastes.

Policy SN-3.5: Phase I Site Assessment. Require a Phase I Environmental Site Assessment prior to entitlement approval for development or redevelopment on any site previously developed with industrial, commercial, or energy uses, or sites suspected of contamination due to illegal dumping or other factors.

Policy SN-3.6: Consultation. Continue to consult with Federal, State, and County agencies to reduce risks to residents associated with the use or transport of hazardous materials.

Policy SN-3.7: Disposal Education. Continue to educate the community regarding the safe use and disposal of household hazardous wastes.

Policy SN-3.8: Permitting. Ensure proper permitting of hazardous materials storage, use and disposal with the Riverside County Fire Department and appropriate County, State, and Federal agencies.

Policy SN-3.9: Permitting Process. Continue to implement and update as necessary, existing permitting process between the City, Riverside County Environmental Health, and Riverside County Hazardous Materials Team for the establishment of facilities, which manufacture, store, use, or dispose of hazardous and toxic materials within the community or adjacent areas.

Policy SN-3.10: Minimize Exposure. Minimize exposure of critical facilities and residences to hazardous materials.

Resiliency and Emergency Preparedness

GOAL SN-4: RESPONSIVE AND EFFECTIVE EMERGENCY PREPAREDNESS THAT ASSURES READINESS TO RESPOND TO NATURAL AND HUMAN-CAUSED DISASTERS

Policy SN-4.1: Emergency Operation Plan. Maintain and update the City's Emergency Operations Plan to keep it current with staffing and technical capabilities of the City and cooperating agencies.

Policy SN-4.2: Evacuation Preparedness. Coordinate with appropriate agencies for the establishment of emergency evacuation routes and plans to preserve or reestablish the use of Palm Drive, Mission Lakes Boulevard, Pierson Boulevard, Dillon Road, Hacienda Avenue, Interstate 10, and State Highway 62 as emergency evacuation routes.

Policy SN-4.3: Evacuation Route Closures. Identify locations and develop appropriate solutions and/or alternatives to key roadways that would be closed to traffic due to major flooding thus restricting emergency evacuation.

Policy SN-4.4: Vulnerabilities. Consider and asses vulnerability to natural and human-caused disasters when reviewing proposals for the siting and development of critical and essential public/quasi-public facilities.

Policy SN-4.5: Available Public Information. Ensure adequate provision of public information to resident and businesses on actions to minimize damage and to facilitate recovery from natural and human-caused disasters.

GOAL SN-5: RESILIENT AGAINST THE IMPLICATIONS OF CLIMATE CHANGE

Policy SN-5.1: Cooling Centers. Establish cooling centers to reduce the resident's vulnerability to extreme heat events and severe storms.

Policy SN-5.2: Power Sources. Encourage redundant power sources such as generators and wind energy to help assure power is available for increased power needs in heat events.

Policy SN-5.3: Design to Minimize Extreme Heat. Require the design of projects to address the possible effects of extreme heat events such as requiring shade trees and shade shelter areas, shaded playgrounds, bus shelters, and placement of structures that account for proper sun exposure to reduce the heat within structures.

Natural Hazards Plan

GOAL SN-6: RESILIENCY AGAINST SEISMIC HAZARDS AND PREPAREDNESS TO RESPOND AFTER A SEISMIC EVENT

Policy SN-6.1: Alquist-Priolo Act. Implement the Alquist-Priolo Act and Public Resources Code Section 2621 to prohibit new structures within earthquake fault zones.

Policy SN-6.2: Seismic Review. Review and determine the adequacy of geotechnical and fault hazard studies prepared within the City by a County Geologist, the State Geologist, or a contract geological engineer.

Policy SN-6.3: Geotechnical Studies. Require geotechnical studies for development proposals located in areas with soils susceptible to liquefaction to or other forms of ground failure. If found to have the potential for liquefaction, further analysis may be necessary to determine level of hazard risk and propose appropriate mitigation measures.

Policy SN-6.4: Fault Zones. Accept the Riverside County designated fault zone for the Blind Canyon Fault (unless subsequent data indicate otherwise), and apply standard measures as would be required of any California Division of Mines and Geology designated fault zone.

Policy SN-6.5: Utilities and Vital Service Providers. Consult with utilities and vital service providers to confirm the design of existing and proposed infrastructure to withstand substantial seismic events, and to strengthen or relocate facilities to safeguard water, electricity, natural gas, and other transmission and distribution systems.

Policy SN-6.6: Water District Consultation. Consult with the Mission Springs Water District and the Coachella Valley Water District in their efforts to recharge groundwater basins underlying the City in order to prevent subsidence and associated damage to existing and future development.

Policy SN-6.7: Wind-Driver Erosion. Continue to implement control measures to prevent wind-driven and water-driven erosion from construction activities and vacant parcels.

Policy SN-6.8: Local Hazard Mitigation Plan. Maintain the City's Local Hazard Mitigation Plan as an extension of the General Plan Safety Element, in conjunction with Riverside County and other key organizations.

Policy SN-6.9: CERT. Continue to assure community education through the Riverside County Community Emergency Response (CERT) trainings and certifications.

GOAL SN-7: ASSURE RESILIENCY AGAINST FLOODING HAZARDS, AND PROVIDE THE TOOLS NEEDED TO RESPOND TO FLOOD EVENTS

Policy SN-7.1: Flood Control Improvements. Require developers to coordinate with adjacent property owners in the planning and funding of flood control improvements, where a Master Drainage Plan or Area Drainage Plan does not exist.

Policy SN-7.2: Flood Zones. Prohibit development in drainages, especially in Flood Zones A and AO, unless all standards of elevation and flood proofing have been implemented to the satisfaction of the City's Building Department, the Riverside County Flood Control and Water Conservation District, and the Coachella Valley Water District.

Policy SN-7.3: Coordination. Coordinate with Riverside County Flood Control and Water Conservation District to plan and provide adequate flood control protection.

Policy SN-7.4: Master Drainage Plan. Expand the Desert Hot Springs Master Drainage Plan to address drainage and flooding concerns of development on the Mission Creek and Morongo Wash drainage areas.

Policy SN-7.5: Flood Insurance Rate Maps. Assist in the modification of FEMA Flood Insurance Rate Maps as appropriate, as flood control improvements are implemented.

Policy SN-7.6: All-Weather Crossings of Drainage Channels. Assure that major roadways in the City feature all-weather crossings of drainage channels to ensure adequate emergency service access as well as general traffic.

Policy SN-7.7: Hydrological Studies. Require new development proposals to provide hydrological studies prepared by a State-certified civil engineer for any project that would change existing site runoff. Such studies shall assess the impact of any change in runoff that could result in increased erosion and sedimentation potential or flooding of downstream properties.

Policy SN-7.8: Appropriate Flood Plain Uses. Promote uses that are more resilient to flooding, such as parks, trails, golf and other recreational features in flood plain areas.

Noise

GOAL SN-8: A NOISE ENVIRONMENT THAT PROVIDES PEACE AND QUIET THAT COMPLEMENTS THE CITY'S SPA RESORT CHARACTER

Policy SN-8.1: Sensitive Land Uses. Protect noise-sensitive land uses from high noise levels from both existing and future noise sources. Sensitive uses include residences, resorts and community open space, schools, libraries, churches, hospitals, and convalescent homes.

Policy SN-8.2: Noise Impacts. Assess proposed development and associated traffic for the potential to generate adverse and incompatible noise impacts. Require mitigation for identified impacts.

Policy SN-8.3: Noise Mitigation. Require the installation of sound walls, earthen berms, wall, window noise insulation, and other mitigation measures for new development in areas that may exceed the City's noise limit standards.

Policy SN-8.4: Circulation Pattern. Encourage a Citywide circulation pattern that places primary traffic loads on major arterials and preserves local neighborhood noise environments by controlling traffic speeds to the greatest extent practical.

Policy SN-8.5: Compatible Land Uses. Designate land uses that are compatible with higher noise levels adjacent to major arterial roads and highways, the Interstate10 corridor, or designated industrial lands.

Policy SN-8.6: Truck Routes. Designate primary truck routes and clearly mark these routes through the City. Other than vehicles providing local service, construction traffic, and delivery trucks, through traffic shall be limited to those as detailed in the Circulation chapter.

Policy SN-8.7: Wind Farm Noise Impacts. Strive to minimize noise impacts from existing and future wind farm development.

Policy SN-8.8: Interior Noise Standards. Enforce quantitative exterior and interior noise standards for various types of sensitive land uses.

Policy SN-8.9: Exterior Noise Standards. Allow for an exceedance of exterior noise standards for all land use types as long as adequate mitigation is provided for interior noise reduction.

Policy SN-8.10: Noise-generating Uses. Require specific design for noise-generating uses such as restaurants, bars, and industrial business located near sensitive uses such as residential.

Policy SN-8.11: Noise Level Compliance. Require new development to monitor and document compliance with all applicable noise level limits in areas subject to potentially significant noise impacts.

Policy SN-8.13: Delivery or Service Noise Generation. Limit delivery or service hours for businesses with potential noise-generating features such as trash bins, docks, loading areas that are located near sensitive uses such as residences, schools, and hospitals.

Policy SN-8.13: Noise-reducing Pavement. Encourage the use of noise-reducing paving materials such as rubberized asphalt for road surfacing projects near sensitive land uses.

Policy SN-8.14: Noise Complaint Response. Respond timely to noise complaints and provide monitoring when necessary.

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Appendix D - Air Quality and Greenhouse Gas Analysis

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Desert Hot Springs GP (Existing Conditions; 2019)

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.76	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2019 energy mix.

Land Use - Source: EIR Table 3-1 Existing LU Distribution (2018); inputs do not include city park, golf course, wind/solar, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Trips and VMT - Existing Condition model run - no construction emissions modeled.

Grading - Existing Condition model run - no construction emissions modeled.

Woodstoves -

Area Coating - SCAQMD Rule 1113 requires the use of paints meeting 50 grams/L VOC content.

Energy Use - T24 standards adjusted upwards to reflect decreased efficiency between 2013/2016 standards. See CalEEMod Appendix E5, Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	LightingElect	3.03	3.08

tblEnergyUse	LightingElect	2.93	2.97
tblEnergyUse	LightingElect	3.66	3.72
tblEnergyUse	LightingElect	5.44	5.52
tblEnergyUse	LightingElect	5.61	5.70
tblEnergyUse	T24E	877.14	993.36
tblEnergyUse	T24E	2.78	2.91
tblEnergyUse	T24E	2.20	2.31
tblEnergyUse	T24E	3.07	3.22
tblEnergyUse	T24E	6.47	6.78
tblEnergyUse	T24E	785.14	889.17
tblEnergyUse	T24E	4.58	4.80
tblEnergyUse	T24E	951.67	1,077.77
tblEnergyUse	T24NG	9,544.50	12,081.65
tblEnergyUse	T24NG	6.97	7.01
tblEnergyUse	T24NG	15.36	15.44
tblEnergyUse	T24NG	3.47	2.48
tblEnergyUse	T24NG	55.15	55.43
tblEnergyUse	T24NG	18,033.01	22,826.59
tblEnergyUse	T24NG	1.92	1.93
tblEnergyUse	T24NG	24,566.15	31,096.39
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00
tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70

tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	203.6956	13.5666	260.7466	0.3522		18.7279	18.7279		18.7279	18.7279	1,952.197 9	12,267.12 26	14,219.32 05	6.4340	0.2801	14,463.64 55
Energy	3.8106	32.8187	15.7299	0.2079		2.6328	2.6328		2.6328	2.6328	0.0000	83,947.09 10	83,947.09 10	3.5975	1.0398	84,346.89 72
Mobile	71.1957	562.1468	723.8089	2.6227	176.8270	2.8578	179.6848	47.3871	2.6996	50.0867	0.0000	242,801.7 599	242,801.7 599	16.5682	0.0000	243,215.9 639
Waste						0.0000	0.0000		0.0000	0.0000	4,561.8119	0.0000	4,561.8119	269.5954	0.0000	11,301.695 8
Water						0.0000	0.0000		0.0000	0.0000	539.3654	7,715.040 9	8,254.406 3	55.8777	1.3662	10,058.47 88
Total	**278.7019**	**608.5320**	**1,000.285 3**	**3.1827**	**176.8270**	**24.2185**	**201.0455**	**47.3871**	**24.0602**	**71.4474**	**7,053.375 1**	**346,731.0 144**	**353,784.3 895**	**352.0727**	**2.6862**	**363,386.6 811**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	203.6956	13.5666	260.7466	0.3522		18.7279	18.7279		18.7279	18.7279	1,952.1979	12,267.1226	14,219.3205	6.4340	0.2801	14,463.6455
Energy	3.8106	32.8187	15.7299	0.2079		2.6328	2.6328		2.6328	2.6328	0.0000	83,947.0910	83,947.0910	3.5975	1.0398	84,346.8972
Mobile	71.1957	562.1468	723.8089	2.6227	176.8270	2.8578	179.6848	47.3871	2.6996	50.0867	0.0000	242,801.7599	242,801.7599	16.5682	0.0000	243,215.9639
Waste						0.0000	0.0000		0.0000	0.0000	4,561.8119	0.0000	4,561.8119	269.5954	0.0000	11,301.6958
Water						0.0000	0.0000		0.0000	0.0000	539.3654	7,715.0409	8,254.4063	55.8777	1.3662	10,058.4788
Total	**278.7019**	**608.5320**	**1,000.2853**	**3.1827**	**176.8270**	**24.2185**	**201.0455**	**47.3871**	**24.0602**	**71.4474**	**7,053.3751**	**346,731.0144**	**353,784.3895**	**352.0727**	**2.6862**	**363,386.6811**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Desert Hot Springs GP (Existing Conditions; 2019) - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	12/31/2017	5	0	
2	Site Preparation	Site Preparation	4/29/2056	4/28/2056	5	0	
3	Grading	Grading	4/29/2079	4/28/2079	5	0	
4	Building Construction	Building Construction	9/27/2138	9/26/2138	5	0	
5	Paving	Paving	11/12/2732	11/11/2732	5	0	
6	Architectural Coating	Architectural Coating	1/11/2775	1/10/2775	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.3 Site Preparation - 2056

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	71.1957	562.1468	723.8089	2.6227	176.8270	2.8578	179.6848	47.3871	2.6996	50.0867	0.0000	242,801.7599	242,801.7599	16.5682	0.0000	243,215.9639
Unmitigated	71.1957	562.1468	723.8089	2.6227	176.8270	2.8578	179.6848	47.3871	2.6996	50.0867	0.0000	242,801.7599	242,801.7599	16.5682	0.0000	243,215.9639

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Elementary School	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Light Industry	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Mobile Home Park	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Single Family Housing	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46,235.34 88	46,235.34 88	2.8747	0.3485	46,411.052 9
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46,235.34 88	46,235.34 88	2.8747	0.3485	46,411.052 9
NaturalGas Mitigated	3.8106	32.8187	15.7299	0.2079		2.6328	2.6328		2.6328	2.6328	0.0000	37,711.742 3	37,711.742 3	0.7228	0.6914	37,935.84 43
NaturalGas Unmitigated	3.8106	32.8187	15.7299	0.2079		2.6328	2.6328		2.6328	2.6328	0.0000	37,711.742 3	37,711.742 3	0.7228	0.6914	37,935.84 43

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	6.24852e +007	0.3369	2.8792	1.2252	0.0184		0.2328	0.2328		0.2328	0.2328	0.0000	3,334.447 8	3,334.447 8	0.0639	0.0611	3,354.262 8
Elementary School	4.6541e +006	0.0251	0.2281	0.1916	1.3700e-003		0.0173	0.0173		0.0173	0.0173	0.0000	248.3605	248.3605	4.7600e-003	4.5500e-003	249.8363
General Light Industry	4.42011e +007	0.2383	2.1667	1.8201	0.0130		0.1647	0.1647		0.1647	0.1647	0.0000	2,358.739 3	2,358.739 3	0.0452	0.0432	2,372.756 1
General Office Building	309246	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	16.5026	16.5026	3.2000e-004	3.0000e-004	16.6006
Hotel	3.51174e +007	0.1894	1.7214	1.4460	0.0103		0.1308	0.1308		0.1308	0.1308	0.0000	1,873.999 2	1,873.999 2	0.0359	0.0344	1,885.135 4
Mobile Home Park	8.25876e +007	0.4453	3.8055	1.6194	0.0243		0.3077	0.3077		0.3077	0.3077	0.0000	4,407.186 8	4,407.186 8	0.0845	0.0808	4,433.376 5
Regional Shopping Center	2.56446e +006	0.0138	0.1257	0.1056	7.5000e-004		9.5500e-003	9.5500e-003		9.5500e-003	9.5500e-003	0.0000	136.8496	136.8496	2.6200e-003	2.5100e-003	137.6628
Single Family Housing	4.74772e +008	2.5601	21.8768	9.3093	0.1396		1.7688	1.7688		1.7688	1.7688	0.0000	25,335.65 67	25,335.65 67	0.4856	0.4645	25,486.21 38
Total		**3.8106**	**32.8187**	**15.7299**	**0.2079**		**2.6328**	**2.6328**		**2.6328**	**2.6328**	**0.0000**	**37,711.74 23**	**37,711.74 23**	**0.7228**	**0.6914**	**37,935.84 43**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	6.24852e+007	0.3369	2.8792	1.2252	0.0184		0.2328	0.2328		0.2328	0.2328	0.0000	3,334.4478	3,334.4478	0.0639	0.0611	3,354.2628
Elementary School	4.6541e+006	0.0251	0.2281	0.1916	1.3700e-003		0.0173	0.0173		0.0173	0.0173	0.0000	248.3605	248.3605	4.7600e-003	4.5500e-003	249.8363
General Light Industry	4.42011e+007	0.2383	2.1667	1.8201	0.0130		0.1647	0.1647		0.1647	0.1647	0.0000	2,358.7393	2,358.7393	0.0452	0.0432	2,372.7561
General Office Building	309246	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003	0.0000	16.5026	16.5026	3.2000e-004	3.0000e-004	16.6006
Hotel	3.51174e+007	0.1894	1.7214	1.4460	0.0103		0.1308	0.1308		0.1308	0.1308	0.0000	1,873.9992	1,873.9992	0.0359	0.0344	1,885.1354
Mobile Home Park	8.25876e+007	0.4453	3.8055	1.6194	0.0243		0.3077	0.3077		0.3077	0.3077	0.0000	4,407.1868	4,407.1868	0.0845	0.0808	4,433.3765
Regional Shopping Center	2.56446e+006	0.0138	0.1257	0.1056	7.5000e-004		9.5500e-003	9.5500e-003		9.5500e-003	9.5500e-003	0.0000	136.8496	136.8496	2.6200e-003	2.5100e-003	137.6628
Single Family Housing	4.74772e+008	2.5601	21.8768	9.3093	0.1396		1.7688	1.7688		1.7688	1.7688	0.0000	25,335.6567	25,335.6567	0.4856	0.4645	25,486.2138
Total		**3.8106**	**32.8187**	**15.7299**	**0.2079**		**2.6328**	**2.6328**		**2.6328**	**2.6328**	**0.0000**	**37,711.7423**	**37,711.7423**	**0.7228**	**0.6914**	**37,935.8443**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.71689e +007	4,133.379 5	0.2570	0.0312	4,149.087 2
Elementary School	3.95598e +006	952.3981	0.0592	7.1800e-003	956.0174
General Light Industry	1.39782e +007	3,365.243 7	0.2092	0.0254	3,378.032 4
General Office Building	1.21329e +006	292.0985	0.0182	2.2000e-003	293.2085
Hotel	1.07933e +007	2,598.463 6	0.1616	0.0196	2,608.338 3
Mobile Home Park	1.69788e +007	4,087.634 3	0.2542	0.0308	4,103.168 2
Regional Shopping Center	1.48808e +007	3,582.531 4	0.2227	0.0270	3,596.145 7
Single Family Housing	1.13079e +008	27,223.59 98	1.6926	0.2052	27,327.05 52
Total		**46,235.34 88**	**2.8747**	**0.3485**	**46,411.05 29**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.71689e +007	4,133.379 5	0.2570	0.0312	4,149.087 2
Elementary School	3.95598e +006	952.3981	0.0592	7.1800e-003	956.0174
General Light Industry	1.39782e +007	3,365.243 7	0.2092	0.0254	3,378.032 4
General Office Building	1.21329e +006	292.0985	0.0182	2.2000e-003	293.2085
Hotel	1.07933e +007	2,598.463 6	0.1616	0.0196	2,608.338 3
Mobile Home Park	1.69788e +007	4,087.634 3	0.2542	0.0308	4,103.168 2
Regional Shopping Center	1.48808e +007	3,582.531 4	0.2227	0.0270	3,596.145 7
Single Family Housing	1.13079e +008	27,223.59 98	1.6926	0.2052	27,327.05 52
Total		**46,235.34 88**	**2.8747**	**0.3485**	**46,411.05 29**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	203.6956	13.5666	260.7466	0.3522		18.7279	18.7279		18.7279	18.7279	1,952.197 9	12,267.12 26	14,219.32 05	6.4340	0.2801	14,463.64 55
Unmitigated	203.6956	13.5666	260.7466	0.3522		18.7279	18.7279		18.7279	18.7279	1,952.197 9	12,267.12 26	14,219.32 05	6.4340	0.2801	14,463.64 55

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	131.4042					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	57.6972	11.9149	118.1344	0.3447		17.9466	17.9466		17.9466	17.9466	1,952.197 9	12,035.28 91	13,987.48 69	6.2062	0.2801	14,226.115 4
Landscaping	4.3713	1.6516	142.6122	7.5000e-003		0.7813	0.7813		0.7813	0.7813	0.0000	231.8335	231.8335	0.2279	0.0000	237.5301
Total	**203.6956**	**13.5666**	**260.7466**	**0.3522**		**18.7279**	**18.7279**		**18.7279**	**18.7279**	**1,952.197 9**	**12,267.12 26**	**14,219.32 05**	**6.4340**	**0.2801**	**14,463.64 55**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	131.4042					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	57.6972	11.9149	118.1344	0.3447		17.9466	17.9466		17.9466	17.9466	1,952.1979	12,035.2891	13,987.4869	6.2062	0.2801	14,226.1154
Landscaping	4.3713	1.6516	142.6122	7.5000e-003		0.7813	0.7813		0.7813	0.7813	0.0000	231.8335	231.8335	0.2279	0.0000	237.5301
Total	**203.6956**	**13.5666**	**260.7466**	**0.3522**		**18.7279**	**18.7279**		**18.7279**	**18.7279**	**1,952.1979**	**12,267.1226**	**14,219.3205**	**6.4340**	**0.2801**	**14,463.6455**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8,254.4063	55.8777	1.3662	10,058.4788
Unmitigated	8,254.4063	55.8777	1.3662	10,058.4788

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	224.781 / 141.71	1,154.9892	7.3919	0.1811	1,393.7584
Elementary School	15.3357 / 39.4348	158.4165	0.5093	0.0130	175.0091
General Light Industry	313.832 / 0	1,083.3603	10.2874	0.2489	1,414.7102
General Office Building	22.1634 / 13.584	112.8424	0.7288	0.0179	136.3811
Hotel	19.1519 / 2.12799	71.8050	0.6282	0.0152	92.0476
Mobile Home Park	186.471 / 117.558	958.1389	6.1321	0.1503	1,156.2135
Regional Shopping Center	85.1819 / 52.2083	433.6940	2.8009	0.0686	524.1615
Single Family Housing	833.19 / 525.272	4,281.1600	27.3992	0.6713	5,166.1976
Total		**8,254.4063**	**55.8777**	**1.3662**	**10,058.4788**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	224.781 / 141.71	1,154.989 2	7.3919	0.1811	1,393.758 4
Elementary School	15.3357 / 39.4348	158.4165	0.5093	0.0130	175.0091
General Light Industry	313.832 / 0	1,083.360 3	10.2874	0.2489	1,414.710 2
General Office Building	22.1634 / 13.584	112.8424	0.7288	0.0179	136.3811
Hotel	19.1519 / 2.12799	71.8050	0.6282	0.0152	92.0476
Mobile Home Park	186.471 / 117.558	958.1389	6.1321	0.1503	1,156.213 5
Regional Shopping Center	85.1819 / 52.2083	433.6940	2.8009	0.0686	524.1615
Single Family Housing	833.19 / 525.272	4,281.160 0	27.3992	0.6713	5,166.197 6
Total		**8,254.406 3**	**55.8777**	**1.3662**	**10,058.47 88**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4,561.8119	269.5954	0.0000	11,301.6958
Unmitigated	4,561.8119	269.5954	0.0000	11,301.6958

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1587	322.1467	19.0383	0.0000	798.1047
Elementary School	1154.49	234.3510	13.8498	0.0000	580.5948
General Light Industry	1682.82	341.5973	20.1878	0.0000	846.2927
General Office Building	115.97	23.5409	1.3912	0.0000	58.3215
Hotel	413.36	83.9083	4.9588	0.0000	207.8794
Mobile Home Park	1316.52	267.2417	15.7935	0.0000	662.0799
Regional Shopping Center	1207.48	245.1075	14.4854	0.0000	607.2435
Single Family Housing	14995.3	3,043.9185	179.8904	0.0000	7,541.1793
Total		**4,561.8118**	**269.5954**	**0.0000**	**11,301.6958**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1587	322.1467	19.0383	0.0000	798.1047
Elementary School	1154.49	234.3510	13.8498	0.0000	580.5948
General Light Industry	1682.82	341.5973	20.1878	0.0000	846.2927
General Office Building	115.97	23.5409	1.3912	0.0000	58.3215
Hotel	413.36	83.9083	4.9588	0.0000	207.8794
Mobile Home Park	1316.52	267.2417	15.7935	0.0000	662.0799
Regional Shopping Center	1207.48	245.1075	14.4854	0.0000	607.2435
Single Family Housing	14995.3	3,043.918 5	179.8904	0.0000	7,541.179 3
Total		**4,561.811 8**	**269.5954**	**0.0000**	**11,301.69 58**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Existing Conditions; 2019)

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.76	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2019 energy mix.

Land Use - Source: EIR Table 3-1 Existing LU Distribution (2018); inputs do not include city park, golf course, wind/solar, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Trips and VMT - Existing Condition model run - no construction emissions modeled.

Grading - Existing Condition model run - no construction emissions modeled.

Woodstoves -

Area Coating - SCAQMD Rule 1113 requires the use of paints meeting 50 grams/L VOC content.

Energy Use - T24 standards adjusted upwards to reflect decreased efficiency between 2013/2016 standards. See CalEEMod Appendix E5, Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	LightingElect	3.03	3.08

tblEnergyUse	LightingElect	2.93	2.97
tblEnergyUse	LightingElect	3.66	3.72
tblEnergyUse	LightingElect	5.44	5.52
tblEnergyUse	LightingElect	5.61	5.70
tblEnergyUse	T24E	877.14	993.36
tblEnergyUse	T24E	2.78	2.91
tblEnergyUse	T24E	2.20	2.31
tblEnergyUse	T24E	3.07	3.22
tblEnergyUse	T24E	6.47	6.78
tblEnergyUse	T24E	785.14	889.17
tblEnergyUse	T24E	4.58	4.80
tblEnergyUse	T24E	951.67	1,077.77
tblEnergyUse	T24NG	9,544.50	12,081.65
tblEnergyUse	T24NG	6.97	7.01
tblEnergyUse	T24NG	15.36	15.44
tblEnergyUse	T24NG	3.47	2.48
tblEnergyUse	T24NG	55.15	55.43
tblEnergyUse	T24NG	18,033.01	22,826.59
tblEnergyUse	T24NG	1.92	1.93
tblEnergyUse	T24NG	24,566.15	31,096.39
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00
tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70

tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869
Energy	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2 606	227,781.2 606	4.3658	4.1760	229,134.8 508
Mobile	514.4127	3,357.574 3	4,773.826 7	16.7991	1,084.849 1	17.1543	1,102.003 4	290.3250	16.2029	306.5279		1,712,727. 7230	1,712,727. 7230	109.1392		1,715,456. 2033
Total	**2,767.150 4**	**3,846.362 0**	**9,325.924 4**	**26.4276**	**1,084.849 1**	**477.9839**	**1,562.833 1**	**290.3250**	**477.0325**	**767.3575**	**52,486.09 19**	**2,266,924. 9290**	**2,319,411. 0209**	**283.1530**	**11.7070**	**2,329,978. 5410**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869
Energy	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2 606	227,781.2 606	4.3658	4.1760	229,134.8 508
Mobile	514.4127	3,357.574 3	4,773.826 7	16.7991	1,084.849 1	17.1543	1,102.003 4	290.3250	16.2029	306.5279		1,712,727. 7230	1,712,727. 7230	109.1392		1,715,456. 2033
Total	**2,767.150 4**	**3,846.362 0**	**9,325.924 4**	**26.4276**	**1,084.849 1**	**477.9839**	**1,562.833 1**	**290.3250**	**477.0325**	**767.3575**	**52,486.09 19**	**2,266,924. 9290**	**2,319,411. 0209**	**283.1530**	**11.7070**	**2,329,978. 5410**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	12/31/2017	5	0	
2	Site Preparation	Site Preparation	4/29/2056	4/28/2056	5	0	
3	Grading	Grading	4/29/2079	4/28/2079	5	0	
4	Building Construction	Building Construction	9/27/2138	9/26/2138	5	0	
5	Paving	Paving	11/12/2732	11/11/2732	5	0	
6	Architectural Coating	Architectural Coating	1/11/2775	1/10/2775	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.3 Site Preparation - 2056

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	514.4127	3,357.574 3	4,773.826 7	16.7991	1,084.849 1	17.1543	1,102.003 4	290.3250	16.2029	306.5279		1,712,727. 7230	1,712,727. 7230	109.1392		1,715,456. 2033
Unmitigated	514.4127	3,357.574 3	4,773.826 7	16.7991	1,084.849 1	17.1543	1,102.003 4	290.3250	16.2029	306.5279		1,712,727. 7230	1,712,727. 7230	109.1392		1,715,456. 2033

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Elementary School	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Light Industry	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Mobile Home Park	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Single Family Housing	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2606	227,781.2606	4.3658	4.1760	229,134.8508
NaturalGas Unmitigated	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2606	227,781.2606	4.3658	4.1760	229,134.8508

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	171192	1.8462	15.7766	6.7134	0.1007		1.2756	1.2756		1.2756	1.2756		20,140.2716	20,140.2716	0.3860	0.3692	20,259.9551
Elementary School	12751	0.1375	1.2501	1.0501	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.1126	1,500.1126	0.0288	0.0275	1,509.0270
General Light Industry	121099	1.3060	11.8724	9.9729	0.0712		0.9023	0.9023		0.9023	0.9023		14,246.9316	14,246.9316	0.2731	0.2612	14,331.5940
General Office Building	847.25	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3100e-003	6.3100e-003		6.3100e-003	6.3100e-003		99.6764	99.6764	1.9100e-003	1.8300e-003	100.2687
Hotel	96212.1	1.0376	9.4326	7.9234	0.0566		0.7169	0.7169		0.7169	0.7169		11,319.0710	11,319.0710	0.2170	0.2075	11,386.3346
Mobile Home Park	226267	2.4401	20.8521	8.8732	0.1331		1.6859	1.6859		1.6859	1.6859		26,619.6811	26,619.6811	0.5102	0.4880	26,777.8685
Regional Shopping Center	7025.93	0.0758	0.6888	0.5786	4.1300e-003		0.0524	0.0524		0.0524	0.0524		826.5800	826.5800	0.0158	0.0152	831.4919
Single Family Housing	1.30075e+006	14.0277	119.8727	51.0097	0.7651		9.6918	9.6918		9.6918	9.6918		153,028.9364	153,028.9364	2.9331	2.8055	153,938.3109
Total		**20.8800**	**179.8283**	**86.1910**	**1.1389**		**14.4261**	**14.4261**		**14.4261**	**14.4261**		**227,781.2606**	**227,781.2606**	**4.3658**	**4.1760**	**229,134.8508**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	171.192	1.8462	15.7766	6.7134	0.1007		1.2756	1.2756		1.2756	1.2756		20,140.2716	20,140.2716	0.3860	0.3692	20,259.9551
Elementary School	12.751	0.1375	1.2501	1.0501	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.1126	1,500.1126	0.0288	0.0275	1,509.0270
General Light Industry	121.099	1.3060	11.8724	9.9729	0.0712		0.9023	0.9023		0.9023	0.9023		14,246.9316	14,246.9316	0.2731	0.2612	14,331.5940
General Office Building	0.84725	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3100e-003	6.3100e-003		6.3100e-003	6.3100e-003		99.6764	99.6764	1.9100e-003	1.8300e-003	100.2687
Hotel	96.2121	1.0376	9.4326	7.9234	0.0566		0.7169	0.7169		0.7169	0.7169		11,319.0710	11,319.0710	0.2170	0.2075	11,386.3346
Mobile Home Park	226.267	2.4401	20.8521	8.8732	0.1331		1.6859	1.6859		1.6859	1.6859		26,619.6811	26,619.6811	0.5102	0.4880	26,777.8685
Regional Shopping Center	7.02593	0.0758	0.6888	0.5786	4.1300e-003		0.0524	0.0524		0.0524	0.0524		826.5800	826.5800	0.0158	0.0152	831.4919
Single Family Housing	1300.75	14.0277	119.8727	51.0097	0.7651		9.6918	9.6918		9.6918	9.6918		153,028.9364	153,028.9364	2.9331	2.8055	153,938.3109
Total		**20.8800**	**179.8283**	**86.1910**	**1.1389**		**14.4261**	**14.4261**		**14.4261**	**14.4261**		**227,781.2606**	**227,781.2606**	**4.3658**	**4.1760**	**229,134.8508**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,231.8577	308.9594	4,465.9067	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.0919	326,415.9454	378,902.0373	169.6479	7.5311	385,387.4869
Unmitigated	2,231.8577	308.9594	4,465.9067	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.0919	326,415.9454	378,902.0373	169.6479	7.5311	385,387.4869

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	48.5698	18.3514	1,584.5797	0.0833		8.6806	8.6806		8.6806	8.6806		2,839.4748	2,839.4748	2.7908		2,909.2453
Total	**2,231.8577**	**308.9594**	**4,465.9067**	**8.4896**		**446.4035**	**446.4035**		**446.4035**	**446.4035**	**52,486.0919**	**326,415.9454**	**378,902.0373**	**169.6479**	**7.5311**	**385,387.4869**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.248 7	290.6080	2,881.327 0	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.09 19	323,576.4 706	376,062.5 625	166.8571	7.5311	382,478.2 416
Landscaping	48.5698	18.3514	1,584.579 7	0.0833		8.6806	8.6806		8.6806	8.6806		2,839.474 8	2,839.474 8	2.7908		2,909.245 3
Total	**2,231.857 7**	**308.9594**	**4,465.906 7**	**8.4896**		**446.4035**	**446.4035**		**446.4035**	**446.4035**	**52,486.09 19**	**326,415.9 454**	**378,902.0 373**	**169.6479**	**7.5311**	**385,387.4 869**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Existing Conditions; 2019)

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.76	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2019 energy mix.

Land Use - Source: EIR Table 3-1 Existing LU Distribution (2018); inputs do not include city park, golf course, wind/solar, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Off-road Equipment - Existing Condition model run - no construction emissions modeled.

Trips and VMT - Existing Condition model run - no construction emissions modeled.

Grading - Existing Condition model run - no construction emissions modeled.

Woodstoves -

Area Coating - SCAQMD Rule 1113 requires the use of paints meeting 50 grams/L VOC content.

Energy Use - T24 standards adjusted upwards to reflect decreased efficiency between 2013/2016 standards. See CalEEMod Appendix E5, Tables 1, 3, and 4.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblEnergyUse	LightingElect	3.03	3.08

tblEnergyUse	LightingElect	2.93	2.97
tblEnergyUse	LightingElect	3.66	3.72
tblEnergyUse	LightingElect	5.44	5.52
tblEnergyUse	LightingElect	5.61	5.70
tblEnergyUse	T24E	877.14	993.36
tblEnergyUse	T24E	2.78	2.91
tblEnergyUse	T24E	2.20	2.31
tblEnergyUse	T24E	3.07	3.22
tblEnergyUse	T24E	6.47	6.78
tblEnergyUse	T24E	785.14	889.17
tblEnergyUse	T24E	4.58	4.80
tblEnergyUse	T24E	951.67	1,077.77
tblEnergyUse	T24NG	9,544.50	12,081.65
tblEnergyUse	T24NG	6.97	7.01
tblEnergyUse	T24NG	15.36	15.44
tblEnergyUse	T24NG	3.47	2.48
tblEnergyUse	T24NG	55.15	55.43
tblEnergyUse	T24NG	18,033.01	22,826.59
tblEnergyUse	T24NG	1.92	1.93
tblEnergyUse	T24NG	24,566.15	31,096.39
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00
tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70

tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2056	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869
Energy	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2 606	227,781.2 606	4.3658	4.1760	229,134.8 508
Mobile	432.4279	3,341.182 0	4,289.744 4	15.4425	1,084.849 1	17.4507	1,102.299 8	290.3250	16.4864	306.8114		1,575,954. 0249	1,575,954. 0249	114.6463		1,578,820. 1826
Total	**2,685.165 6**	**3,829.969 6**	**8,841.842 0**	**25.0710**	**1,084.849 1**	**478.2803**	**1,563.129 5**	**290.3250**	**477.3161**	**767.6411**	**52,486.09 19**	**2,130,151. 2309**	**2,182,637. 3228**	**288.6601**	**11.7070**	**2,193,342. 5203**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869
Energy	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2 606	227,781.2 606	4.3658	4.1760	229,134.8 508
Mobile	432.4279	3,341.182 0	4,289.744 4	15.4425	1,084.849 1	17.4507	1,102.299 8	290.3250	16.4864	306.8114		1,575,954. 0249	1,575,954. 0249	114.6463		1,578,820. 1826
Total	**2,685.165 6**	**3,829.969 6**	**8,841.842 0**	**25.0710**	**1,084.849 1**	**478.2803**	**1,563.129 5**	**290.3250**	**477.3161**	**767.6411**	**52,486.09 19**	**2,130,151. 2309**	**2,182,637. 3228**	**288.6601**	**11.7070**	**2,193,342. 5203**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	12/31/2017	5	0	
2	Site Preparation	Site Preparation	4/29/2056	4/28/2056	5	0	
3	Grading	Grading	4/29/2079	4/28/2079	5	0	
4	Building Construction	Building Construction	9/27/2138	9/26/2138	5	0	
5	Paving	Paving	11/12/2732	11/11/2732	5	0	
6	Architectural Coating	Architectural Coating	1/11/2775	1/10/2775	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.3 Site Preparation - 2056

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2056

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2079

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2138

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2775

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	432.4279	3,341.1820	4,289.7444	15.4425	1,084.8491	17.4507	1,102.2998	290.3250	16.4864	306.8114		1,575,954.0249	1,575,954.0249	114.6463		1,578,820.1826
Unmitigated	432.4279	3,341.1820	4,289.7444	15.4425	1,084.8491	17.4507	1,102.2998	290.3250	16.4864	306.8114		1,575,954.0249	1,575,954.0249	114.6463		1,578,820.1826

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Elementary School	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Light Industry	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
General Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Mobile Home Park	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Single Family Housing	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2606	227,781.2606	4.3658	4.1760	229,134.8508
NaturalGas Unmitigated	20.8800	179.8283	86.1910	1.1389		14.4262	14.4262		14.4262	14.4262		227,781.2606	227,781.2606	4.3658	4.1760	229,134.8508

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	171192	1.8462	15.7766	6.7134	0.1007		1.2756	1.2756		1.2756	1.2756		20,140.2716	20,140.2716	0.3860	0.3692	20,259.9551
Elementary School	12751	0.1375	1.2501	1.0501	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.1126	1,500.1126	0.0288	0.0275	1,509.0270
General Light Industry	121099	1.3060	11.8724	9.9729	0.0712		0.9023	0.9023		0.9023	0.9023		14,246.9316	14,246.9316	0.2731	0.2612	14,331.5940
General Office Building	847.25	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3100e-003	6.3100e-003		6.3100e-003	6.3100e-003		99.6764	99.6764	1.9100e-003	1.8300e-003	100.2687
Hotel	96212.1	1.0376	9.4326	7.9234	0.0566		0.7169	0.7169		0.7169	0.7169		11,319.0710	11,319.0710	0.2170	0.2075	11,386.3346
Mobile Home Park	226267	2.4401	20.8521	8.8732	0.1331		1.6859	1.6859		1.6859	1.6859		26,619.6811	26,619.6811	0.5102	0.4880	26,777.8685
Regional Shopping Center	7025.93	0.0758	0.6888	0.5786	4.1300e-003		0.0524	0.0524		0.0524	0.0524		826.5800	826.5800	0.0158	0.0152	831.4919
Single Family Housing	1.30075e+006	14.0277	119.8727	51.0097	0.7651		9.6918	9.6918		9.6918	9.6918		153,028.9364	153,028.9364	2.9331	2.8055	153,938.3109
Total		**20.8800**	**179.8283**	**86.1910**	**1.1389**		**14.4261**	**14.4261**		**14.4261**	**14.4261**		**227,781.2606**	**227,781.2606**	**4.3658**	**4.1760**	**229,134.8508**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	171.192	1.8462	15.7766	6.7134	0.1007		1.2756	1.2756		1.2756	1.2756		20,140.2716	20,140.2716	0.3860	0.3692	20,259.9551
Elementary School	12.751	0.1375	1.2501	1.0501	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.1126	1,500.1126	0.0288	0.0275	1,509.0270
General Light Industry	121.099	1.3060	11.8724	9.9729	0.0712		0.9023	0.9023		0.9023	0.9023		14,246.9316	14,246.9316	0.2731	0.2612	14,331.5940
General Office Building	0.84725	9.1400e-003	0.0831	0.0698	5.0000e-004		6.3100e-003	6.3100e-003		6.3100e-003	6.3100e-003		99.6764	99.6764	1.9100e-003	1.8300e-003	100.2687
Hotel	96.2121	1.0376	9.4326	7.9234	0.0566		0.7169	0.7169		0.7169	0.7169		11,319.0710	11,319.0710	0.2170	0.2075	11,386.3346
Mobile Home Park	226.267	2.4401	20.8521	8.8732	0.1331		1.6859	1.6859		1.6859	1.6859		26,619.6811	26,619.6811	0.5102	0.4880	26,777.8685
Regional Shopping Center	7.02593	0.0758	0.6888	0.5786	4.1300e-003		0.0524	0.0524		0.0524	0.0524		826.5800	826.5800	0.0158	0.0152	831.4919
Single Family Housing	1300.75	14.0277	119.8727	51.0097	0.7651		9.6918	9.6918		9.6918	9.6918		153,028.9364	153,028.9364	2.9331	2.8055	153,938.3109
Total		**20.8800**	**179.8283**	**86.1910**	**1.1389**		**14.4261**	**14.4261**		**14.4261**	**14.4261**		**227,781.2606**	**227,781.2606**	**4.3658**	**4.1760**	**229,134.8508**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869
Unmitigated	2,231.857 7	308.9594	4,465.906 7	8.4896		446.4035	446.4035		446.4035	446.4035	52,486.09 19	326,415.9 454	378,902.0 373	169.6479	7.5311	385,387.4 869

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.248 7	290.6080	2,881.327 0	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.09 19	323,576.4 706	376,062.5 625	166.8571	7.5311	382,478.2 416
Landscaping	48.5698	18.3514	1,584.579 7	0.0833		8.6806	8.6806		8.6806	8.6806		2,839.474 8	2,839.474 8	2.7908		2,909.245 3
Total	**2,231.857 7**	**308.9594**	**4,465.906 7**	**8.4896**		**446.4035**	**446.4035**		**446.4035**	**446.4035**	**52,486.09 19**	**326,415.9 454**	**378,902.0 373**	**169.6479**	**7.5311**	**385,387.4 869**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	48.5698	18.3514	1,584.5797	0.0833		8.6806	8.6806		8.6806	8.6806		2,839.4748	2,839.4748	2.7908		2,909.2453
Total	**2,231.8577**	**308.9594**	**4,465.9067**	**8.4896**		**446.4035**	**446.4035**		**446.4035**	**446.4035**	**52,486.0919**	**326,415.9454**	**378,902.0373**	**169.6479**	**7.5311**	**385,387.4869**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs (Existing GP; 2040)

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	53.58	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Desert Hot Springs (Existing GP; 2040) - Riverside-Salton Sea County, Annual

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2030 energy mix.

Land Use - Source: EIR Table 3-1 Existing Land Use Distribution (2018); inputs do not include GC, CP, wind/solar farms, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Trips and VMT - Existing GP model run - no construction emissions modeled.

Grading - Existing GP model run - no construction emissions modeled.

Architectural Coating -

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00

tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70
tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	203.5555	13.5455	259.4198	0.3522		18.7334	18.7334		18.7334	18.7334	1,952.197 9	12,267.12 26	14,219.32 05	6.4271	0.2801	14,463.47 27
Energy	3.2382	27.9264	13.6443	0.1766		2.2373	2.2373		2.2373	2.2373	0.0000	36,635.72 03	36,635.72 03	3.4407	0.9301	36,998.91 51
Mobile	26.1227	290.1603	274.2612	1.8788	176.4471	0.6399	177.0871	47.2187	0.5971	47.8159	0.0000	175,827.1 744	175,827.1 744	7.2297	0.0000	176,007.9 155
Waste						0.0000	0.0000		0.0000	0.0000	4,561.8119	0.0000	4,561.8119	269.5954	0.0000	11,301.695 8
Water						0.0000	0.0000		0.0000	0.0000	539.3654	778.8302	1,318.195 5	55.8777	1.3662	3,122.268 1
Total	**232.9164**	**331.6321**	**547.3253**	**2.4076**	**176.4471**	**21.6106**	**198.0578**	**47.2187**	**21.5678**	**68.7866**	**7,053.375 1**	**225,508.8 474**	**232,562.2 225**	**342.5705**	**2.5764**	**241,894.2 671**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	203.5555	13.5455	259.4198	0.3522		18.7334	18.7334		18.7334	18.7334	1,952.1979	12,267.1226	14,219.3205	6.4271	0.2801	14,463.4727
Energy	3.2382	27.9264	13.6443	0.1766		2.2373	2.2373		2.2373	2.2373	0.0000	36,635.7203	36,635.7203	3.4407	0.9301	36,998.9151
Mobile	26.1227	290.1603	274.2612	1.8788	176.4471	0.6399	177.0871	47.2187	0.5971	47.8159	0.0000	175,827.1744	175,827.1744	7.2297	0.0000	176,007.9155
Waste						0.0000	0.0000		0.0000	0.0000	4,561.8119	0.0000	4,561.8119	269.5954	0.0000	11,301.6958
Water						0.0000	0.0000		0.0000	0.0000	539.3654	778.8302	1,318.1955	55.8777	1.3662	3,122.2681
Total	**232.9164**	**331.6321**	**547.3253**	**2.4076**	**176.4471**	**21.6106**	**198.0578**	**47.2187**	**21.5678**	**68.7866**	**7,053.3751**	**225,508.8474**	**232,562.2225**	**342.5705**	**2.5764**	**241,894.2671**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/10/2019	9/9/2019	5	0	
2	Site Preparation	Site Preparation	1/8/2058	1/7/2058	5	0	
3	Grading	Grading	1/7/2081	1/6/2081	5	0	
4	Building Construction	Building Construction	6/7/2140	6/6/2140	5	0	
5	Paving	Paving	7/24/2734	7/23/2734	5	0	
6	Architectural Coating	Architectural Coating	9/21/2776	9/20/2776	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	26.1227	290.1603	274.2612	1.8788	176.4471	0.6399	177.0871	47.2187	0.5971	47.8159	0.0000	175,827.1744	175,827.1744	7.2297	0.0000	176,007.9155
Unmitigated	26.1227	290.1603	274.2612	1.8788	176.4471	0.6399	177.0871	47.2187	0.5971	47.8159	0.0000	175,827.1744	175,827.1744	7.2297	0.0000	176,007.9155

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Mobile Home Park	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,589.1851	4,589.1851	2.8265	0.3426	4,761.9433
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,589.1851	4,589.1851	2.8265	0.3426	4,761.9433
NaturalGas Mitigated	3.2382	27.9264	13.6443	0.1766		2.2373	2.2373		2.2373	2.2373	0.0000	32,046.5353	32,046.5353	0.6142	0.5875	32,236.9718
NaturalGas Unmitigated	3.2382	27.9264	13.6443	0.1766		2.2373	2.2373		2.2373	2.2373	0.0000	32,046.5353	32,046.5353	0.6142	0.5875	32,236.9718

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	5.3732e+007	0.2897	2.4759	1.0536	0.0158		0.2002	0.2002		0.2002	0.2002	0.0000	2,867.3455	2,867.3455	0.0550	0.0526	2,884.3847
Elementary School	4.63294e+006	0.0250	0.2271	0.1908	1.3600e-003		0.0173	0.0173		0.0173	0.0173	0.0000	247.2316	247.2316	4.7400e-003	4.5300e-003	248.7007
General Light Industry	4.40925e+007	0.2378	2.1614	1.8156	0.0130		0.1643	0.1643		0.1643	0.1643	0.0000	2,352.9457	2,352.9457	0.0451	0.0431	2,366.9280
General Office Building	432695	2.3300e-003	0.0212	0.0178	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.0903	23.0903	4.4000e-004	4.2000e-004	23.2275
Hotel	3.49543e+007	0.1885	1.7135	1.4393	0.0103		0.1302	0.1302		0.1302	0.1302	0.0000	1,865.2959	1,865.2959	0.0358	0.0342	1,876.3804
Mobile Home Park	6.88683e+007	0.3714	3.1733	1.3504	0.0203		0.2566	0.2566		0.2566	0.2566	0.0000	3,675.0766	3,675.0766	0.0704	0.0674	3,696.9157
Regional Shopping Center	2.55296e+006	0.0138	0.1252	0.1051	7.5000e-004		9.5100e-003	9.5100e-003		9.5100e-003	9.5100e-003	0.0000	136.2359	136.2359	2.6100e-003	2.5000e-003	137.0455
Single Family Housing	3.91264e+008	2.1098	18.0288	7.6718	0.1151		1.4577	1.4577		1.4577	1.4577	0.0000	20,879.3139	20,879.3139	0.4002	0.3828	21,003.3892
Total		**3.2381**	**27.9264**	**13.6444**	**0.1766**		**2.2373**	**2.2373**		**2.2373**	**2.2373**	**0.0000**	**32,046.5353**	**32,046.5353**	**0.6142**	**0.5875**	**32,236.9718**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	5.3732e +007	0.2897	2.4759	1.0536	0.0158		0.2002	0.2002		0.2002	0.2002	0.0000	2,867.345 5	2,867.345 5	0.0550	0.0526	2,884.384 7
Elementary School	4.63294e +006	0.0250	0.2271	0.1908	1.3600e-003		0.0173	0.0173		0.0173	0.0173	0.0000	247.2316	247.2316	4.7400e-003	4.5300e-003	248.7007
General Light Industry	4.40925e +007	0.2378	2.1614	1.8156	0.0130		0.1643	0.1643		0.1643	0.1643	0.0000	2,352.945 7	2,352.945 7	0.0451	0.0431	2,366.928 0
General Office Building	432695	2.3300e-003	0.0212	0.0178	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.0903	23.0903	4.4000e-004	4.2000e-004	23.2275
Hotel	3.49543e +007	0.1885	1.7135	1.4393	0.0103		0.1302	0.1302		0.1302	0.1302	0.0000	1,865.295 9	1,865.295 9	0.0358	0.0342	1,876.380 4
Mobile Home Park	6.88683e +007	0.3714	3.1733	1.3504	0.0203		0.2566	0.2566		0.2566	0.2566	0.0000	3,675.076 6	3,675.076 6	0.0704	0.0674	3,696.915 7
Regional Shopping Center	2.55296e +006	0.0138	0.1252	0.1051	7.5000e-004		9.5100e-003	9.5100e-003		9.5100e-003	9.5100e-003	0.0000	136.2359	136.2359	2.6100e-003	2.5000e-003	137.0455
Single Family Housing	3.91264e +008	2.1098	18.0288	7.6718	0.1151		1.4577	1.4577		1.4577	1.4577	0.0000	20,879.31 39	20,879.31 39	0.4002	0.3828	21,003.38 92
Total		**3.2381**	**27.9264**	**13.6444**	**0.1766**		**2.2373**	**2.2373**		**2.2373**	**2.2373**	**0.0000**	**32,046.53 53**	**32,046.53 53**	**0.6142**	**0.5875**	**32,236.97 18**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.67679e +007	407.5182	0.2510	0.0304	422.8591
Elementary School	3.86079e +006	93.8306	0.0578	7.0000e-003	97.3628
General Light Industry	1.37747e +007	334.7726	0.2062	0.0250	347.3750
General Office Building	1.18711e +006	28.8508	0.0178	2.1500e-003	29.9369
Hotel	1.05661e +007	256.7929	0.1582	0.0192	266.4598
Mobile Home Park	1.66811e +007	405.4090	0.2497	0.0303	420.6705
Regional Shopping Center	1.45243e +007	352.9910	0.2174	0.0264	366.2792
Single Family Housing	1.11466e +008	2,709.0200	1.6685	0.2022	2,811.0001
Total		**4,589.1851**	**2.8265**	**0.3426**	**4,761.9433**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.67679e +007	407.5182	0.2510	0.0304	422.8591
Elementary School	3.86079e +006	93.8306	0.0578	7.0000e-003	97.3628
General Light Industry	1.37747e +007	334.7726	0.2062	0.0250	347.3750
General Office Building	1.18711e +006	28.8508	0.0178	2.1500e-003	29.9369
Hotel	1.05661e +007	256.7929	0.1582	0.0192	266.4598
Mobile Home Park	1.66811e +007	405.4090	0.2497	0.0303	420.6705
Regional Shopping Center	1.45243e +007	352.9910	0.2174	0.0264	366.2792
Single Family Housing	1.11466e +008	2,709.0200	1.6685	0.2022	2,811.0001
Total		**4,589.1851**	**2.8265**	**0.3426**	**4,761.9433**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	203.5555	13.5455	259.4198	0.3522		18.7334	18.7334		18.7334	18.7334	1,952.1979	12,267.1226	14,219.3205	6.4271	0.2801	14,463.4727
Unmitigated	203.5555	13.5455	259.4198	0.3522		18.7334	18.7334		18.7334	18.7334	1,952.1979	12,267.1226	14,219.3205	6.4271	0.2801	14,463.4727

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	131.4042					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	57.6972	11.9149	118.1344	0.3447		17.9466	17.9466		17.9466	17.9466	1,952.1979	12,035.2891	13,987.4869	6.2062	0.2801	14,226.1154
Landscaping	4.2312	1.6306	141.2854	7.5000e-003		0.7868	0.7868		0.7868	0.7868	0.0000	231.8335	231.8335	0.2210	0.0000	237.3573
Total	**203.5556**	**13.5455**	**259.4198**	**0.3522**		**18.7334**	**18.7334**		**18.7334**	**18.7334**	**1,952.1979**	**12,267.1226**	**14,219.3205**	**6.4271**	**0.2801**	**14,463.4727**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	131.4042					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	57.6972	11.9149	118.1344	0.3447		17.9466	17.9466		17.9466	17.9466	1,952.1979	12,035.2891	13,987.4869	6.2062	0.2801	14,226.1154
Landscaping	4.2312	1.6306	141.2854	7.5000e-003		0.7868	0.7868		0.7868	0.7868	0.0000	231.8335	231.8335	0.2210	0.0000	237.3573
Total	**203.5556**	**13.5455**	**259.4198**	**0.3522**		**18.7334**	**18.7334**		**18.7334**	**18.7334**	**1,952.1979**	**12,267.1226**	**14,219.3205**	**6.4271**	**0.2801**	**14,463.4727**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,318.195 5	55.8777	1.3662	3,122.268 1
Unmitigated	1,318.195 5	55.8777	1.3662	3,122.268 1

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	224.781 / 141.71	180.7095	7.3919	0.1811	419.4786
Elementary School	15.3357 / 39.4348	20.3663	0.5093	0.0130	36.9589
General Light Industry	313.832 / 0	198.8781	10.2874	0.2489	530.2280
General Office Building	22.1634 / 13.584	17.7130	0.7288	0.0179	41.2516
Hotel	19.1519 / 2.12799	12.7113	0.6282	0.0152	32.9539
Mobile Home Park	186.471 / 117.558	149.9103	6.1321	0.1503	347.9849
Regional Shopping Center	85.1819 / 52.2083	68.0774	2.8009	0.0686	158.5449
Single Family Housing	833.19 / 525.272	669.8297	27.3992	0.6713	1,554.8673
Total		**1,318.1955**	**55.8777**	**1.3662**	**3,122.2681**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	224.781 / 141.71	180.7095	7.3919	0.1811	419.4786
Elementary School	15.3357 / 39.4348	20.3663	0.5093	0.0130	36.9589
General Light Industry	313.832 / 0	198.8781	10.2874	0.2489	530.2280
General Office Building	22.1634 / 13.584	17.7130	0.7288	0.0179	41.2516
Hotel	19.1519 / 2.12799	12.7113	0.6282	0.0152	32.9539
Mobile Home Park	186.471 / 117.558	149.9103	6.1321	0.1503	347.9849
Regional Shopping Center	85.1819 / 52.2083	68.0774	2.8009	0.0686	158.5449
Single Family Housing	833.19 / 525.272	669.8297	27.3992	0.6713	1,554.8673
Total		**1,318.1955**	**55.8777**	**1.3662**	**3,122.2681**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4,561.8119	269.5954	0.0000	11,301.695 8
Unmitigated	4,561.8119	269.5954	0.0000	11,301.695 8

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1587	322.1467	19.0383	0.0000	798.1047
Elementary School	1154.49	234.3510	13.8498	0.0000	580.5948
General Light Industry	1682.82	341.5973	20.1878	0.0000	846.2927
General Office Building	115.97	23.5409	1.3912	0.0000	58.3215
Hotel	413.36	83.9083	4.9588	0.0000	207.8794
Mobile Home Park	1316.52	267.2417	15.7935	0.0000	662.0799
Regional Shopping Center	1207.48	245.1075	14.4854	0.0000	607.2435
Single Family Housing	14995.3	3,043.9185	179.8904	0.0000	7,541.1793
Total		**4,561.8118**	**269.5954**	**0.0000**	**11,301.6958**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1587	322.1467	19.0383	0.0000	798.1047
Elementary School	1154.49	234.3510	13.8498	0.0000	580.5948
General Light Industry	1682.82	341.5973	20.1878	0.0000	846.2927
General Office Building	115.97	23.5409	1.3912	0.0000	58.3215
Hotel	413.36	83.9083	4.9588	0.0000	207.8794
Mobile Home Park	1316.52	267.2417	15.7935	0.0000	662.0799
Regional Shopping Center	1207.48	245.1075	14.4854	0.0000	607.2435
Single Family Housing	14995.3	3,043.918 5	179.8904	0.0000	7,541.179 3
Total		**4,561.811 8**	**269.5954**	**0.0000**	**11,301.69 58**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs (Existing GP; 2040)

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	53.58	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2030 energy mix.

Land Use - Source: EIR Table 3-1 Existing Land Use Distribution (2018); inputs do not include GC, CP, wind/solar farms, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Trips and VMT - Existing GP model run - no construction emissions modeled.

Grading - Existing GP model run - no construction emissions modeled.

Architectural Coating -

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00

tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70
tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Energy	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
Mobile	188.3707	1,764.4096	1,816.8313	11.9700	1,082.5565	3.8586	1,086.4152	289.3087	3.6003	292.9090		1,233,586.7813	1,233,586.7813	47.2939		1,234,769.1290
Total	**2,436.4151**	**2,226.1561**	**6,342.7591**	**21.4274**	**1,082.5565**	**462.5825**	**1,545.1391**	**289.3087**	**462.3242**	**751.6329**	**52,486.0919**	**1,753,565.7856**	**1,806,051.8775**	**220.5672**	**11.0797**	**1,814,867.8070**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Energy	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
Mobile	188.3707	1,764.4096	1,816.8313	11.9700	1,082.5565	3.8586	1,086.4152	289.3087	3.6003	292.9090		1,233,586.7813	1,233,586.7813	47.2939		1,234,769.1290
Total	**2,436.4151**	**2,226.1561**	**6,342.7591**	**21.4274**	**1,082.5565**	**462.5825**	**1,545.1391**	**289.3087**	**462.3242**	**751.6329**	**52,486.0919**	**1,753,565.7856**	**1,806,051.8775**	**220.5672**	**11.0797**	**1,814,867.8070**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/10/2019	9/9/2019	5	0	
2	Site Preparation	Site Preparation	1/8/2058	1/7/2058	5	0	
3	Grading	Grading	1/7/2081	1/6/2081	5	0	
4	Building Construction	Building Construction	6/7/2140	6/6/2140	5	0	
5	Paving	Paving	7/24/2734	7/23/2734	5	0	
6	Architectural Coating	Architectural Coating	9/21/2776	9/20/2776	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	188.3707	1,764.4096	1,816.8313	11.9700	1,082.5565	3.8586	1,086.4152	289.3087	3.6003	292.9090		1,233,586.7813	1,233,586.7813	47.2939		1,234,769.1290
Unmitigated	188.3707	1,764.4096	1,816.8313	11.9700	1,082.5565	3.8586	1,086.4152	289.3087	3.6003	292.9090		1,233,586.7813	1,233,586.7813	47.2939		1,234,769.1290

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Mobile Home Park	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
NaturalGas Unmitigated	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	147211	1.5876	13.5665	5.7730	0.0866		1.0969	1.0969		1.0969	1.0969		17,318.9444	17,318.9444	0.3320	0.3175	17,421.8622
Elementary School	12693	0.1369	1.2444	1.0453	7.4700e-003		0.0946	0.0946		0.0946	0.0946		1,493.2939	1,493.2939	0.0286	0.0274	1,502.1678
General Light Industry	120801	1.3028	11.8433	9.9484	0.0711		0.9001	0.9001		0.9001	0.9001		14,211.9376	14,211.9376	0.2724	0.2606	14,296.3920
General Office Building	1185.47	0.0128	0.1162	0.0976	7.0000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003		139.4666	139.4666	2.6700e-003	2.5600e-003	140.2954
Hotel	95765.3	1.0328	9.3888	7.8866	0.0563		0.7136	0.7136		0.7136	0.7136		11,266.5027	11,266.5027	0.2159	0.2066	11,333.4539
Mobile Home Park	188680	2.0348	17.3882	7.3992	0.1110		1.4059	1.4059		1.4059	1.4059		22,197.6905	22,197.6905	0.4255	0.4070	22,329.6002
Regional Shopping Center	6994.42	0.0754	0.6857	0.5760	4.1100e-003		0.0521	0.0521		0.0521	0.0521		822.8733	822.8733	0.0158	0.0151	827.7633
Single Family Housing	1.07195e+006	11.5603	98.7880	42.0375	0.6306		7.9871	7.9871		7.9871	7.9871		126,112.3501	126,112.3501	2.4172	2.3121	126,861.7728
Total		**17.7433**	**153.0211**	**74.7635**	**0.9678**		**12.2590**	**12.2590**		**12.2590**	**12.2590**		**193,563.0591**	**193,563.0591**	**3.7100**	**3.5487**	**194,713.3076**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	147.211	1.5876	13.5665	5.7730	0.0866		1.0969	1.0969		1.0969	1.0969		17,318.9444	17,318.9444	0.3320	0.3175	17,421.8622
Elementary School	12.693	0.1369	1.2444	1.0453	7.4700e-003		0.0946	0.0946		0.0946	0.0946		1,493.2939	1,493.2939	0.0286	0.0274	1,502.1678
General Light Industry	120.801	1.3028	11.8433	9.9484	0.0711		0.9001	0.9001		0.9001	0.9001		14,211.9376	14,211.9376	0.2724	0.2606	14,296.3920
General Office Building	1.18547	0.0128	0.1162	0.0976	7.0000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003		139.4666	139.4666	2.6700e-003	2.5600e-003	140.2954
Hotel	95.7653	1.0328	9.3888	7.8866	0.0563		0.7136	0.7136		0.7136	0.7136		11,266.5027	11,266.5027	0.2159	0.2066	11,333.4539
Mobile Home Park	188.68	2.0348	17.3882	7.3992	0.1110		1.4059	1.4059		1.4059	1.4059		22,197.6905	22,197.6905	0.4255	0.4070	22,329.6002
Regional Shopping Center	6.99442	0.0754	0.6857	0.5760	4.1100e-003		0.0521	0.0521		0.0521	0.0521		822.8733	822.8733	0.0158	0.0151	827.7633
Single Family Housing	1071.95	11.5603	98.7880	42.0375	0.6306		7.9871	7.9871		7.9871	7.9871		126,112.3501	126,112.3501	2.4172	2.3121	126,861.7728
Total		**17.7433**	**153.0211**	**74.7635**	**0.9678**		**12.2590**	**12.2590**		**12.2590**	**12.2590**		**193,563.0591**	**193,563.0591**	**3.7100**	**3.5487**	**194,713.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Unmitigated	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	47.0132	18.1175	1,569.8373	0.0833		8.7420	8.7420		8.7420	8.7420		2,839.4746	2,839.4746	2.7062		2,907.1288
Total	**2,230.3011**	**308.7254**	**4,451.1642**	**8.4896**		**446.4649**	**446.4649**		**446.4649**	**446.4649**	**52,486.0919**	**326,415.9452**	**378,902.0371**	**169.5633**	**7.5311**	**385,385.3704**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	47.0132	18.1175	1,569.8373	0.0833		8.7420	8.7420		8.7420	8.7420		2,839.4746	2,839.4746	2.7062		2,907.1288
Total	**2,230.3011**	**308.7254**	**4,451.1642**	**8.4896**		**446.4649**	**446.4649**		**446.4649**	**446.4649**	**52,486.0919**	**326,415.9452**	**378,902.0371**	**169.5633**	**7.5311**	**385,385.3704**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs (Existing GP; 2040)

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	124.70	1000sqft	11.10	124,696.00	0
Elementary School	6,326.00	Student	126.20	528,874.92	0
General Light Industry	1,357.11	1000sqft	207.70	1,357,111.00	0
Hotel	755.00	Room	60.80	582,475.00	0
Apartments Low Rise	3,450.00	Dwelling Unit	218.80	3,450,000.00	9867
Mobile Home Park	2,862.00	Dwelling Unit	479.40	3,434,400.00	8185
Single Family Housing	12,788.00	Dwelling Unit	2,619.00	23,018,400.00	36574
Regional Shopping Center	1,149.98	1000sqft	176.00	1,149,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	53.58	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect SCE 2030 energy mix.

Land Use - Source: EIR Table 3-1 Existing Land Use Distribution (2018); inputs do not include GC, CP, wind/solar farms, museum, util/infra, open space, and vacant land use types. CalEEMod default KSF used for res and school land uses.

Construction Phase - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Off-road Equipment - Existing GP model run - no construction emissions modeled.

Trips and VMT - Existing GP model run - no construction emissions modeled.

Grading - Existing GP model run - no construction emissions modeled.

Architectural Coating -

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblLandUse	LandUseSquareFeet	124,700.00	124,696.00

tblLandUse	LandUseSquareFeet	1,357,110.00	1,357,111.00
tblLandUse	LandUseSquareFeet	1,096,260.00	582,475.00
tblLandUse	LandUseSquareFeet	1,149,980.00	1,149,984.00
tblLandUse	LotAcreage	2.86	11.10
tblLandUse	LotAcreage	12.14	126.20
tblLandUse	LotAcreage	31.15	207.70
tblLandUse	LotAcreage	25.17	60.80
tblLandUse	LotAcreage	215.63	218.80
tblLandUse	LotAcreage	360.55	479.40
tblLandUse	LotAcreage	4,151.95	2,619.00
tblLandUse	LotAcreage	26.40	176.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	2,655.00	0.00
tblTripsAndVMT	WorkerTripNumber	10,593.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,119.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2081	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Energy	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
Mobile	157.9150	1,730.1778	1,633.1179	11.0499	1,082.5565	3.8851	1,086.4416	289.3087	3.6256	292.9343		1,140,028.7114	1,140,028.7114	50.0975		1,141,281.1491
Total	**2,405.9594**	**2,191.9244**	**6,159.0456**	**20.5073**	**1,082.5565**	**462.6090**	**1,545.1655**	**289.3087**	**462.3495**	**751.6582**	**52,486.0919**	**1,660,007.7156**	**1,712,493.8076**	**223.3708**	**11.0797**	**1,721,379.8271**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Energy	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
Mobile	157.9150	1,730.1778	1,633.1179	11.0499	1,082.5565	3.8851	1,086.4416	289.3087	3.6256	292.9343		1,140,028.7114	1,140,028.7114	50.0975		1,141,281.1491
Total	**2,405.9594**	**2,191.9244**	**6,159.0456**	**20.5073**	**1,082.5565**	**462.6090**	**1,545.1655**	**289.3087**	**462.3495**	**751.6582**	**52,486.0919**	**1,660,007.7156**	**1,712,493.8076**	**223.3708**	**11.0797**	**1,721,379.8271**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/10/2019	9/9/2019	5	0	
2	Site Preparation	Site Preparation	1/8/2058	1/7/2058	5	0	
3	Grading	Grading	1/7/2081	1/6/2081	5	0	
4	Building Construction	Building Construction	6/7/2140	6/6/2140	5	0	
5	Paving	Paving	7/24/2734	7/23/2734	5	0	
6	Architectural Coating	Architectural Coating	9/21/2776	9/20/2776	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 60,553,170; Residential Outdoor: 20,184,390; Non-Residential Indoor: 5,614,711; Non-Residential Outdoor: 1,871,570; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2081

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2140

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2734

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2776

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	157.9150	1,730.177 8	1,633.1179	11.0499	1,082.556 5	3.8851	1,086.441 6	289.3087	3.6256	292.9343		1,140,028. 7114	1,140,028. 7114	50.0975		1,141,281. 1491
Unmitigated	157.9150	1,730.177 8	1,633.1179	11.0499	1,082.556 5	3.8851	1,086.441 6	289.3087	3.6256	292.9343		1,140,028. 7114	1,140,028. 7114	50.0975		1,141,281. 1491

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	22,735.50	24,702.00	20941.50	50,912,643	50,912,643
Elementary School	8,160.54	0.00	0.00	14,211,603	14,211,603
General Light Industry	9,459.06	1,791.39	922.83	22,445,964	22,445,964
General Office Building	1,375.44	306.76	130.94	2,230,147	2,230,147
Hotel	6,168.35	6,183.45	4492.25	8,807,878	8,807,878
Mobile Home Park	14,281.38	14,310.00	12478.32	31,379,279	31,379,279
Regional Shopping Center	49,104.15	57,464.50	29025.50	62,817,348	62,817,348
Single Family Housing	121,741.76	126,729.08	110232.56	270,242,573	270,242,573
Total	233,026.17	231,487.18	178,223.90	463,047,434	463,047,434

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
General Office Building	12.50	4.20	5.40	33.00	48.00	19.00	77	19	4
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Mobile Home Park	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Office Building	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Mobile Home Park	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076
NaturalGas Unmitigated	17.7433	153.0211	74.7635	0.9678		12.2590	12.2590		12.2590	12.2590		193,563.0591	193,563.0591	3.7100	3.5487	194,713.3076

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	147211	1.5876	13.5665	5.7730	0.0866		1.0969	1.0969		1.0969	1.0969		17,318.9444	17,318.9444	0.3320	0.3175	17,421.8622
Elementary School	12693	0.1369	1.2444	1.0453	7.4700e-003		0.0946	0.0946		0.0946	0.0946		1,493.2939	1,493.2939	0.0286	0.0274	1,502.1678
General Light Industry	120801	1.3028	11.8433	9.9484	0.0711		0.9001	0.9001		0.9001	0.9001		14,211.9376	14,211.9376	0.2724	0.2606	14,296.3920
General Office Building	1185.47	0.0128	0.1162	0.0976	7.0000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003		139.4666	139.4666	2.6700e-003	2.5600e-003	140.2954
Hotel	95765.3	1.0328	9.3888	7.8866	0.0563		0.7136	0.7136		0.7136	0.7136		11,266.5027	11,266.5027	0.2159	0.2066	11,333.4539
Mobile Home Park	188680	2.0348	17.3882	7.3992	0.1110		1.4059	1.4059		1.4059	1.4059		22,197.6905	22,197.6905	0.4255	0.4070	22,329.6002
Regional Shopping Center	6994.42	0.0754	0.6857	0.5760	4.1100e-003		0.0521	0.0521		0.0521	0.0521		822.8733	822.8733	0.0158	0.0151	827.7633
Single Family Housing	1.07195e+006	11.5603	98.7880	42.0375	0.6306		7.9871	7.9871		7.9871	7.9871		126,112.3501	126,112.3501	2.4172	2.3121	126,861.7728
Total		**17.7433**	**153.0211**	**74.7635**	**0.9678**		**12.2590**	**12.2590**		**12.2590**	**12.2590**		**193,563.0591**	**193,563.0591**	**3.7100**	**3.5487**	**194,713.3076**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	147.211	1.5876	13.5665	5.7730	0.0866		1.0969	1.0969		1.0969	1.0969		17,318.9444	17,318.9444	0.3320	0.3175	17,421.8622
Elementary School	12.693	0.1369	1.2444	1.0453	7.4700e-003		0.0946	0.0946		0.0946	0.0946		1,493.2939	1,493.2939	0.0286	0.0274	1,502.1678
General Light Industry	120.801	1.3028	11.8433	9.9484	0.0711		0.9001	0.9001		0.9001	0.9001		14,211.9376	14,211.9376	0.2724	0.2606	14,296.3920
General Office Building	1.18547	0.0128	0.1162	0.0976	7.0000e-004		8.8300e-003	8.8300e-003		8.8300e-003	8.8300e-003		139.4666	139.4666	2.6700e-003	2.5600e-003	140.2954
Hotel	95.7653	1.0328	9.3888	7.8866	0.0563		0.7136	0.7136		0.7136	0.7136		11,266.5027	11,266.5027	0.2159	0.2066	11,333.4539
Mobile Home Park	188.68	2.0348	17.3882	7.3992	0.1110		1.4059	1.4059		1.4059	1.4059		22,197.6905	22,197.6905	0.4255	0.4070	22,329.6002
Regional Shopping Center	6.99442	0.0754	0.6857	0.5760	4.1100e-003		0.0521	0.0521		0.0521	0.0521		822.8733	822.8733	0.0158	0.0151	827.7633
Single Family Housing	1071.95	11.5603	98.7880	42.0375	0.6306		7.9871	7.9871		7.9871	7.9871		126,112.3501	126,112.3501	2.4172	2.3121	126,861.7728
Total		**17.7433**	**153.0211**	**74.7635**	**0.9678**		**12.2590**	**12.2590**		**12.2590**	**12.2590**		**193,563.0591**	**193,563.0591**	**3.7100**	**3.5487**	**194,713.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704
Unmitigated	2,230.3011	308.7254	4,451.1642	8.4896		446.4649	446.4649		446.4649	446.4649	52,486.0919	326,415.9452	378,902.0371	169.5633	7.5311	385,385.3704

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	47.0132	18.1175	1,569.8373	0.0833		8.7420	8.7420		8.7420	8.7420		2,839.4746	2,839.4746	2.7062		2,907.1288
Total	**2,230.3011**	**308.7254**	**4,451.1642**	**8.4896**		**446.4649**	**446.4649**		**446.4649**	**446.4649**	**52,486.0919**	**326,415.9452**	**378,902.0371**	**169.5633**	**7.5311**	**385,385.3704**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	56.0161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	720.0231					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1,407.2487	290.6080	2,881.3270	8.4063		437.7229	437.7229		437.7229	437.7229	52,486.0919	323,576.4706	376,062.5625	166.8571	7.5311	382,478.2416
Landscaping	47.0132	18.1175	1,569.8373	0.0833		8.7420	8.7420		8.7420	8.7420		2,839.4746	2,839.4746	2.7062		2,907.1288
Total	**2,230.3011**	**308.7254**	**4,451.1642**	**8.4896**		**446.4649**	**446.4649**		**446.4649**	**446.4649**	**52,486.0919**	**326,415.9452**	**378,902.0371**	**169.5633**	**7.5311**	**385,385.3704**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; Standard Reg Reqs)

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.88	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Residential and Non-residential interior and exterior coatings are required to meet 50g/L VOC content per SCAQMD Rule 1113.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00

tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	22.3730	30.2101	26.5201	0.0740	7.1962	1.1099	8.3060	2.7626	1.0288	3.7914	0.0000	6,717.3220	6,717.3220	0.8923	0.0000	6,739.6301
Maximum	**22.3730**	**30.2101**	**26.5201**	**0.0740**	**7.1962**	**1.1099**	**8.3060**	**2.7626**	**1.0288**	**3.7914**	**0.0000**	**6,717.3220**	**6,717.3220**	**0.8923**	**0.0000**	**6,739.6301**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	22.3730	30.2101	26.5200	0.0740	5.0594	1.1099	6.1693	1.6816	1.0288	2.7104	0.0000	6,717.3193	6,717.3193	0.8923	0.0000	6,739.6274
Maximum	**22.3730**	**30.2101**	**26.5200**	**0.0740**	**5.0594**	**1.1099**	**6.1693**	**1.6816**	**1.0288**	**2.7104**	**0.0000**	**6,717.3193**	**6,717.3193**	**0.8923**	**0.0000**	**6,739.6274**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**29.69**	**0.00**	**25.73**	**39.13**	**0.00**	**28.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2020**	**3-31-2020**	13.0341	13.0341
2	**4-1-2020**	**6-30-2020**	13.0608	13.0608
3	**7-1-2020**	**9-30-2020**	13.2044	13.2044
		Highest	13.2044	13.2044

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686
Energy	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	14,599.0998	14,599.0998	0.7000	0.1849	14,671.7004
Mobile	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068
Waste						0.0000	0.0000		0.0000	0.0000	982.1779	0.0000	982.1779	58.0451	0.0000	2,433.3041
Water						0.0000	0.0000		0.0000	0.0000	164.9734	1,855.5254	2,020.4988	17.0733	0.4157	2,571.2162
Total	**43.6060**	**130.7524**	**176.5507**	**0.6578**	**42.5461**	**1.1597**	**43.7058**	**11.3996**	**1.1323**	**12.5318**	**1,147.1512**	**75,224.6721**	**76,371.8234**	**79.5781**	**0.6387**	**78,551.5961**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686
Energy	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	14,599.0998	14,599.0998	0.7000	0.1849	14,671.7004
Mobile	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068
Waste						0.0000	0.0000		0.0000	0.0000	982.1779	0.0000	982.1779	58.0451	0.0000	2,433.3041
Water						0.0000	0.0000		0.0000	0.0000	164.9734	1,855.5254	2,020.4988	17.0733	0.4157	2,571.2162
Total	**43.6060**	**130.7524**	**176.5507**	**0.6578**	**42.5461**	**1.1597**	**43.7058**	**11.3996**	**1.1323**	**12.5318**	**1,147.1512**	**75,224.6721**	**76,371.8234**	**79.5781**	**0.6387**	**78,551.5961**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4339	4.3493	2.8497	5.0800e-003		0.2173	0.2173		0.2020	0.2020	0.0000	445.3818	445.3818	0.1257	0.0000	448.5250
Total	**0.4339**	**4.3493**	**2.8497**	**5.0800e-003**		**0.2173**	**0.2173**		**0.2020**	**0.2020**	**0.0000**	**445.3818**	**445.3818**	**0.1257**	**0.0000**	**448.5250**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4339	4.3493	2.8497	5.0800e-003		0.2173	0.2173		0.2020	0.2020	0.0000	445.3812	445.3812	0.1257	0.0000	448.5244
Total	**0.4339**	**4.3493**	**2.8497**	**5.0800e-003**		**0.2173**	**0.2173**		**0.2020**	**0.2020**	**0.0000**	**445.3812**	**445.3812**	**0.1257**	**0.0000**	**448.5244**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3667	0.0000	2.3667	1.3009	0.0000	1.3009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	5.5567	2.8183	4.9800e-003		0.2879	0.2879		0.2648	0.2648	0.0000	437.9419	437.9419	0.1416	0.0000	441.4829
Total	**0.5340**	**5.5567**	**2.8183**	**4.9800e-003**	**2.3667**	**0.2879**	**2.6545**	**1.3009**	**0.2648**	**1.5658**	**0.0000**	**437.9419**	**437.9419**	**0.1416**	**0.0000**	**441.4829**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7700e-003	5.8800e-003	0.0634	1.8000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2700e-003	0.0000	16.3454	16.3454	4.2000e-004	0.0000	16.3559
Total	**8.7700e-003**	**5.8800e-003**	**0.0634**	**1.8000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**16.3454**	**16.3454**	**4.2000e-004**	**0.0000**	**16.3559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9230	0.0000	0.9230	0.5074	0.0000	0.5074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	5.5567	2.8183	4.9800e-003		0.2879	0.2879		0.2648	0.2648	0.0000	437.9414	437.9414	0.1416	0.0000	441.4824
Total	**0.5340**	**5.5567**	**2.8183**	**4.9800e-003**	**0.9230**	**0.2879**	**1.2109**	**0.5074**	**0.2648**	**0.7722**	**0.0000**	**437.9414**	**437.9414**	**0.1416**	**0.0000**	**441.4824**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7700e-003	5.8800e-003	0.0634	1.8000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2700e-003	0.0000	16.3454	16.3454	4.2000e-004	0.0000	16.3559
Total	**8.7700e-003**	**5.8800e-003**	**0.0634**	**1.8000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**16.3454**	**16.3454**	**4.2000e-004**	**0.0000**	**16.3559**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1362	0.0000	1.1362	0.4711	0.0000	0.4711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5830	6.5759	4.1865	8.1200e-003		0.2848	0.2848		0.2620	0.2620	0.0000	713.7442	713.7442	0.2308	0.0000	719.5152
Total	**0.5830**	**6.5759**	**4.1865**	**8.1200e-003**	**1.1362**	**0.2848**	**1.4210**	**0.4711**	**0.2620**	**0.7331**	**0.0000**	**713.7442**	**713.7442**	**0.2308**	**0.0000**	**719.5152**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7500e-003	6.5300e-003	0.0705	2.0000e-004	0.0216	1.4000e-004	0.0217	5.7200e-003	1.3000e-004	5.8500e-003	0.0000	18.1616	18.1616	4.7000e-004	0.0000	18.1732
Total	**9.7500e-003**	**6.5300e-003**	**0.0705**	**2.0000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7200e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**18.1616**	**18.1616**	**4.7000e-004**	**0.0000**	**18.1732**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4431	0.0000	0.4431	0.1838	0.0000	0.1838	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5830	6.5759	4.1865	8.1200e-003		0.2848	0.2848		0.2620	0.2620	0.0000	713.7434	713.7434	0.2308	0.0000	719.5144
Total	**0.5830**	**6.5759**	**4.1865**	**8.1200e-003**	**0.4431**	**0.2848**	**0.7279**	**0.1838**	**0.2620**	**0.4458**	**0.0000**	**713.7434**	**713.7434**	**0.2308**	**0.0000**	**719.5144**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7500e-003	6.5300e-003	0.0705	2.0000e-004	0.0216	1.4000e-004	0.0217	5.7200e-003	1.3000e-004	5.8500e-003	0.0000	18.1616	18.1616	4.7000e-004	0.0000	18.1732
Total	**9.7500e-003**	**6.5300e-003**	**0.0705**	**2.0000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7200e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**18.1616**	**18.1616**	**4.7000e-004**	**0.0000**	**18.1732**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2183	8.1604	1.5966	0.0184	0.4201	0.0397	0.4598	0.1213	0.0380	0.1592	0.0000	1,763.1956	1,763.1956	0.1619	0.0000	1,767.2435
Worker	1.2058	0.8075	8.7184	0.0249	2.6664	0.0169	2.6833	0.7081	0.0156	0.7237	0.0000	2,246.5843	2,246.5843	0.0576	0.0000	2,248.0249
Total	**1.4240**	**8.9679**	**10.3150**	**0.0433**	**3.0865**	**0.0566**	**3.1431**	**0.8294**	**0.0535**	**0.8829**	**0.0000**	**4,009.7799**	**4,009.7799**	**0.2195**	**0.0000**	**4,015.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2183	8.1604	1.5966	0.0184	0.4201	0.0397	0.4598	0.1213	0.0380	0.1592	0.0000	1,763.195 6	1,763.195 6	0.1619	0.0000	1,767.243 5
Worker	1.2058	0.8075	8.7184	0.0249	2.6664	0.0169	2.6833	0.7081	0.0156	0.7237	0.0000	2,246.584 3	2,246.584 3	0.0576	0.0000	2,248.024 9
Total	**1.4240**	**8.9679**	**10.3150**	**0.0433**	**3.0865**	**0.0566**	**3.1431**	**0.8294**	**0.0535**	**0.8829**	**0.0000**	**4,009.779 9**	**4,009.779 9**	**0.2195**	**0.0000**	**4,015.268 4**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.8426	1.9194	2.9900e-003		0.0986	0.0986		0.0907	0.0907	0.0000	262.3697	262.3697	0.0849	0.0000	264.4911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1777**	**1.8426**	**1.9194**	**2.9900e-003**		**0.0986**	**0.0986**		**0.0907**	**0.0907**	**0.0000**	**262.3697**	**262.3697**	**0.0849**	**0.0000**	**264.4911**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.8426	1.9194	2.9900e-003		0.0986	0.0986		0.0907	0.0907	0.0000	262.3694	262.3694	0.0849	0.0000	264.4908
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1777**	**1.8426**	**1.9194**	**2.9900e-003**		**0.0986**	**0.0986**		**0.0907**	**0.0907**	**0.0000**	**262.3694**	**262.3694**	**0.0849**	**0.0000**	**264.4908**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	18.6366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	**18.6683**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5124**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2413	0.1616	1.7444	4.9700e-003	0.5335	3.3900e-003	0.5369	0.1417	3.1200e-003	0.1448	0.0000	449.4985	449.4985	0.0115	0.0000	449.7867
Total	**0.2413**	**0.1616**	**1.7444**	**4.9700e-003**	**0.5335**	**3.3900e-003**	**0.5369**	**0.1417**	**3.1200e-003**	**0.1448**	**0.0000**	**449.4985**	**449.4985**	**0.0115**	**0.0000**	**449.7867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	18.6366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	**18.6683**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5123**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2413	0.1616	1.7444	4.9700e-003	0.5335	3.3900e-003	0.5369	0.1417	3.1200e-003	0.1448	0.0000	449.4985	449.4985	0.0115	0.0000	449.7867
Total	**0.2413**	**0.1616**	**1.7444**	**4.9700e-003**	**0.5335**	**3.3900e-003**	**0.5369**	**0.1417**	**3.1200e-003**	**0.1448**	**0.0000**	**449.4985**	**449.4985**	**0.0115**	**0.0000**	**449.7867**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.07 94	56,655.07 94	3.6811	0.0000	56,747.10 68
Unmitigated	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.07 94	56,655.07 94	3.6811	0.0000	56,747.10 68

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8,350.2463	8,350.2463	0.5803	0.0703	8,385.7130
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8,350.2463	8,350.2463	0.5803	0.0703	8,385.7130
NaturalGas Mitigated	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	6,248.8535	6,248.8535	0.1198	0.1146	6,285.9874
NaturalGas Unmitigated	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	6,248.8535	6,248.8535	0.1198	0.1146	6,285.9874

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.54643e+007	0.1373	1.1734	0.4993	7.4900e-003		0.0949	0.0949		0.0949	0.0949	0.0000	1,358.8724	1,358.8724	0.0261	0.0249	1,366.9475
Elementary School	481164	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6768	25.6768	4.9000e-004	4.7000e-004	25.8293
General Light Industry	3.65168e+007	0.1969	1.7900	1.5036	0.0107		0.1360	0.1360		0.1360	0.1360	0.0000	1,948.6761	1,948.6761	0.0374	0.0357	1,960.2561
Hotel	2.61404e+006	0.0141	0.1281	0.1076	7.7000e-004		9.7400e-003	9.7400e-003		9.7400e-003	9.7400e-003	0.0000	139.4949	139.4949	2.6700e-003	2.5600e-003	140.3238
Regional Shopping Center	1.29436e+006	6.9800e-003	0.0635	0.0533	3.8000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	69.0719	69.0719	1.3200e-003	1.2700e-003	69.4824
Single Family Housing	5.07284e+007	0.2735	2.3375	0.9947	0.0149		0.1890	0.1890		0.1890	0.1890	0.0000	2,707.0615	2,707.0615	0.0519	0.0496	2,723.1482
Total		**0.6314**	**5.5161**	**3.1784**	**0.0344**		**0.4363**	**0.4363**		**0.4363**	**0.4363**	**0.0000**	**6,248.8535**	**6,248.8535**	**0.1198**	**0.1146**	**6,285.9873**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.54643e+007	0.1373	1.1734	0.4993	7.4900e-003		0.0949	0.0949		0.0949	0.0949	0.0000	1,358.8724	1,358.8724	0.0261	0.0249	1,366.9475
Elementary School	481164	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6768	25.6768	4.9000e-004	4.7000e-004	25.8293
General Light Industry	3.65168e+007	0.1969	1.7900	1.5036	0.0107		0.1360	0.1360		0.1360	0.1360	0.0000	1,948.6761	1,948.6761	0.0374	0.0357	1,960.2561
Hotel	2.61404e+006	0.0141	0.1281	0.1076	7.7000e-004		9.7400e-003	9.7400e-003		9.7400e-003	9.7400e-003	0.0000	139.4949	139.4949	2.6700e-003	2.5600e-003	140.3238
Regional Shopping Center	1.29436e+006	6.9800e-003	0.0635	0.0533	3.8000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	69.0719	69.0719	1.3200e-003	1.2700e-003	69.4824
Single Family Housing	5.07284e+007	0.2735	2.3375	0.9947	0.0149		0.1890	0.1890		0.1890	0.1890	0.0000	2,707.0615	2,707.0615	0.0519	0.0496	2,723.1482
Total		**0.6314**	**5.5161**	**3.1784**	**0.0344**		**0.4363**	**0.4363**		**0.4363**	**0.4363**	**0.0000**	**6,248.8535**	**6,248.8535**	**0.1198**	**0.1146**	**6,285.9873**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	7.22946e +006	1,557.240 4	0.1082	0.0131	1,563.854 6
Elementary School	350986	75.6031	5.2500e-003	6.4000e-004	75.9242
General Light Industry	1.04189e +007	2,244.256 5	0.1560	0.0189	2,253.788 7
Hotel	719176	154.9118	0.0108	1.3000e-003	155.5698
Regional Shopping Center	6.38434e +006	1,375.198 2	0.0956	0.0116	1,381.039 2
Single Family Housing	1.3663e +007	2,943.036 3	0.2045	0.0248	2,955.536 5
Total		**8,350.246 3**	**0.5803**	**0.0703**	**8,385.713 0**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	7.22946e +006	1,557.240 4	0.1082	0.0131	1,563.854 6
Elementary School	350986	75.6031	5.2500e-003	6.4000e-004	75.9242
General Light Industry	1.04189e +007	2,244.256 5	0.1560	0.0189	2,253.788 7
Hotel	719176	154.9118	0.0108	1.3000e-003	155.5698
Regional Shopping Center	6.38434e +006	1,375.198 2	0.0956	0.0116	1,381.039 2
Single Family Housing	1.3663e +007	2,943.036 3	0.2045	0.0248	2,955.536 5
Total		**8,350.246 3**	**0.5803**	**0.0703**	**8,385.713 0**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.268 6
Unmitigated	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.268 6

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.0923					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2097	1.7917	0.7624	0.0114		0.1449	0.1449		0.1449	0.1449	0.0000	2,074.984 7	2,074.984 7	0.0398	0.0380	2,087.315 3
Landscaping	0.7445	0.2831	24.5261	1.2900e-003		0.1352	0.1352		0.1352	0.1352	0.0000	39.9829	39.9829	0.0388	0.0000	40.9534
Total	**27.9102**	**2.0748**	**25.2885**	**0.0127**		**0.2800**	**0.2800**		**0.2800**	**0.2800**	**0.0000**	**2,114.967 6**	**2,114.967 6**	**0.0786**	**0.0380**	**2,128.268 6**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.0923					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2097	1.7917	0.7624	0.0114		0.1449	0.1449		0.1449	0.1449	0.0000	2,074.984 7	2,074.984 7	0.0398	0.0380	2,087.315 3
Landscaping	0.7445	0.2831	24.5261	1.2900e-003		0.1352	0.1352		0.1352	0.1352	0.0000	39.9829	39.9829	0.0388	0.0000	40.9534
Total	**27.9102**	**2.0748**	**25.2885**	**0.0127**		**0.2800**	**0.2800**		**0.2800**	**0.2800**	**0.0000**	**2,114.967 6**	**2,114.967 6**	**0.0786**	**0.0380**	**2,128.268 6**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,020.498 8	17.0733	0.4157	2,571.216 2
Unmitigated	2,020.498 8	17.0733	0.4157	2,571.216 2

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	106.527 / 67.1582	493.2944	3.5031	0.0858	606.4502
Elementary School	1.59273 / 4.09558	14.7737	0.0529	1.3500e-003	16.4970
General Light Industry	259.911 / 0	811.4432	8.5199	0.2061	1,085.8626
Hotel	0.761003 / 0.0845559	2.5782	0.0250	6.1000e-004	3.3826
Regional Shopping Center	43.1872 / 26.4696	198.1755	1.4201	0.0348	244.0425
Single Family Housing	108.025 / 68.103	500.2337	3.5524	0.0870	614.9814
Total		**2,020.4988**	**17.0733**	**0.4157**	**2,571.2162**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	106.527 / 67.1582	493.2944	3.5031	0.0858	606.4502
Elementary School	1.59273 / 4.09558	14.7737	0.0529	1.3500e-003	16.4970
General Light Industry	259.911 / 0	811.4432	8.5199	0.2061	1,085.8626
Hotel	0.761003 / 0.0845559	2.5782	0.0250	6.1000e-004	3.3826
Regional Shopping Center	43.1872 / 26.4696	198.1755	1.4201	0.0348	244.0425
Single Family Housing	108.025 / 68.103	500.2337	3.5524	0.0870	614.9814
Total		**2,020.4988**	**17.0733**	**0.4157**	**2,571.2162**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	982.1779	58.0451	0.0000	2,433.304 1
Unmitigated	982.1779	58.0451	0.0000	2,433.304 1

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	752.1	152.6695	9.0225	0.0000	378.2322
Elementary School	119.9	24.3386	1.4384	0.0000	60.2979
General Light Industry	1393.69	282.9065	16.7193	0.0000	700.8888
Hotel	16.43	3.3351	0.1971	0.0000	8.2627
Regional Shopping Center	612.19	124.2690	7.3441	0.0000	307.8713
Single Family Housing	1944.22	394.6591	23.3237	0.0000	977.7512
Total		**982.1779**	**58.0450**	**0.0000**	**2,433.3041**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	752.1	152.6695	9.0225	0.0000	378.2322
Elementary School	119.9	24.3386	1.4384	0.0000	60.2979
General Light Industry	1393.69	282.9065	16.7193	0.0000	700.8888
Hotel	16.43	3.3351	0.1971	0.0000	8.2627
Regional Shopping Center	612.19	124.2690	7.3441	0.0000	307.8713
Single Family Housing	1944.22	394.6591	23.3237	0.0000	977.7512
Total		**982.1779**	**58.0450**	**0.0000**	**2,433.3041**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; Standard Reg Reqs)

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.88	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Residential and Non-residential interior and exterior coatings are required to meet 50g/L VOC content per SCAQMD Rule 1113.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00

tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	172.1838	229.6885	214.5694	0.5881	55.4005	8.4704	63.8709	21.2034	7.8513	29.0547	0.0000	58,807.6808	58,807.6808	7.5058	0.0000	58,995.3245
Maximum	**172.1838**	**229.6885**	**214.5694**	**0.5881**	**55.4005**	**8.4704**	**63.8709**	**21.2034**	**7.8513**	**29.0547**	**0.0000**	**58,807.6808**	**58,807.6808**	**7.5058**	**0.0000**	**58,995.3245**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	172.1838	229.6885	214.5694	0.5881	39.0893	8.4704	47.5597	12.9518	7.8513	20.8032	0.0000	58,807.6808	58,807.6808	7.5058	0.0000	58,995.3245
Maximum	**172.1838**	**229.6885**	**214.5694**	**0.5881**	**39.0893**	**8.4704**	**47.5597**	**12.9518**	**7.8513**	**20.8032**	**0.0000**	**58,807.6808**	**58,807.6808**	**7.5058**	**0.0000**	**58,995.3245**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	29.44	0.00	25.54	38.92	0.00	28.40	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388
Total	**279.1999**	**852.0717**	**1,331.9654**	**4.5848**	**274.2093**	**10.2218**	**284.4311**	**73.3696**	**10.0483**	**83.4179**	**0.0000**	**513,244.1871**	**513,244.1871**	**27.5807**	**1.7147**	**514,444.6949**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388
Total	**279.1999**	**852.0717**	**1,331.9654**	**4.5848**	**274.2093**	**10.2218**	**284.4311**	**73.3696**	**10.0483**	**83.4179**	**0.0000**	**513,244.1871**	**513,244.1871**	**27.5807**	**1.7147**	**514,444.6949**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.704 9	3,747.704 9	1.0580		3,774.153 6
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.704 9**	**3,747.704 9**	**1.0580**		**3,774.153 6**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0420	0.5620	1.5000e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		149.4087	149.4087	3.9000e-003		149.5062
Total	**0.0755**	**0.0420**	**0.5620**	**1.5000e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**149.4087**	**149.4087**	**3.9000e-003**		**149.5062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0420	0.5620	1.5000e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		149.4087	149.4087	3.9000e-003		149.5062
Total	**0.0755**	**0.0420**	**0.5620**	**1.5000e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**149.4087**	**149.4087**	**3.9000e-003**		**149.5062**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0839	0.0466	0.6244	1.6700e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		166.0097	166.0097	4.3300e-003		166.1180
Total	**0.0839**	**0.0466**	**0.6244**	**1.6700e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**166.0097**	**166.0097**	**4.3300e-003**		**166.1180**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3826**	**2.1739**	**5.5565**	**1.4026**	**2.0000**	**3.4026**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0839	0.0466	0.6244	1.6700e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		166.0097	166.0097	4.3300e-003		166.1180
Total	**0.0839**	**0.0466**	**0.6244**	**1.6700e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**166.0097**	**166.0097**	**4.3300e-003**		**166.1180**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6303	61.8588	11.1935	0.1434	3.2512	0.3010	3.5521	0.9365	0.2879	1.2244		15,118.1999	15,118.1999	1.2969		15,150.6211
Worker	10.3721	5.7662	77.2412	0.2062	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		20,535.3931	20,535.3931	0.5360		20,548.7941
Total	**12.0025**	**67.6250**	**88.4347**	**0.3496**	**23.9504**	**0.4302**	**24.3806**	**6.4268**	**0.4069**	**6.8337**		**35,653.5930**	**35,653.5930**	**1.8329**		**35,699.4152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6303	61.8588	11.1935	0.1434	3.2512	0.3010	3.5521	0.9365	0.2879	1.2244		15,118.1999	15,118.1999	1.2969		15,150.6211
Worker	10.3721	5.7662	77.2412	0.2062	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		20,535.3931	20,535.3931	0.5360		20,548.7941
Total	**12.0025**	**67.6250**	**88.4347**	**0.3496**	**23.9504**	**0.4302**	**24.3806**	**6.4268**	**0.4069**	**6.8337**		**35,653.5930**	**35,653.5930**	**1.8329**		**35,699.4152**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	142.2638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**142.5059**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0753	1.1537	15.4545	0.0413	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		4,108.738 7	4,108.738 7	0.1073		4,111.4200
Total	**2.0753**	**1.1537**	**15.4545**	**0.0413**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**4,108.738 7**	**4,108.738 7**	**0.1073**		**4,111.420 0**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	142.2638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**142.5059**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0753	1.1537	15.4545	0.0413	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		4,108.738 7	4,108.738 7	0.1073		4,111.4200
Total	**2.0753**	**1.1537**	**15.4545**	**0.0413**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**4,108.738 7**	**4,108.738 7**	**0.1073**		**4,111.420 0**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	114.6499	775.0015	1,023.441 6	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7 236	419,223.7 236	25.3126		419,856.5 388
Unmitigated	114.6499	775.0015	1,023.441 6	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7 236	419,223.7 236	25.3126		419,856.5 388

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
NaturalGas Unmitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69765.2	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1318.26	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7161.74	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3546.19	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69.7652	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1.31826	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100.046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7.16174	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3.54619	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138.982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Unmitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; Standard Reg Reqs)

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.88	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Residential and Non-residential interior and exterior coatings are required to meet 50g/L VOC content per SCAQMD Rule 1113.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00

tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	171.7183	229.3304	199.5802	0.5557	55.4005	8.4749	63.8754	21.2034	7.8556	29.0590	0.0000	55,555.0912	55,555.0912	7.5754	0.0000	55,744.4768
Maximum	**171.7183**	**229.3304**	**199.5802**	**0.5557**	**55.4005**	**8.4749**	**63.8754**	**21.2034**	**7.8556**	**29.0590**	**0.0000**	**55,555.0912**	**55,555.0912**	**7.5754**	**0.0000**	**55,744.4768**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	171.7183	229.3304	199.5802	0.5557	39.0893	8.4749	47.5642	12.9518	7.8556	20.8074	0.0000	55,555.0912	55,555.0912	7.5754	0.0000	55,744.4768
Maximum	**171.7183**	**229.3304**	**199.5802**	**0.5557**	**39.0893**	**8.4749**	**47.5642**	**12.9518**	**7.8556**	**20.8074**	**0.0000**	**55,555.0912**	**55,555.0912**	**7.5754**	**0.0000**	**55,744.4768**

Desert Hot Springs GP (Incremental Growth; Standard Reg Reqs) - Riverside-Salton Sea County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	29.44	0.00	25.54	38.92	0.00	28.40	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Total	**260.3287**	**844.6270**	**1,231.2414**	**4.2542**	**274.2093**	**10.2674**	**284.4767**	**73.3696**	**10.0919**	**83.4615**	**0.0000**	**479,819.3902**	**479,819.3902**	**29.0719**	**1.7147**	**481,057.1782**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Total	**260.3287**	**844.6270**	**1,231.2414**	**4.2542**	**274.2093**	**10.2674**	**284.4767**	**73.3696**	**10.0919**	**83.4615**	**0.0000**	**479,819.3902**	**479,819.3902**	**29.0719**	**1.7147**	**481,057.1782**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0434	0.4607	1.3500e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		134.1053	134.1053	3.4200e-003		134.1907
Total	**0.0721**	**0.0434**	**0.4607**	**1.3500e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**134.1053**	**134.1053**	**3.4200e-003**		**134.1907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0434	0.4607	1.3500e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		134.1053	134.1053	3.4200e-003		134.1907
Total	**0.0721**	**0.0434**	**0.4607**	**1.3500e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**134.1053**	**134.1053**	**3.4200e-003**		**134.1907**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0482	0.5119	1.5000e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		149.0058	149.0058	3.8000e-003		149.1008
Total	**0.0801**	**0.0482**	**0.5119**	**1.5000e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**149.0058**	**149.0058**	**3.8000e-003**		**149.1008**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3826**	**2.1739**	**5.5565**	**1.4026**	**2.0000**	**3.4026**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0482	0.5119	1.5000e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		149.0058	149.0058	3.8000e-003		149.1008
Total	**0.0801**	**0.0482**	**0.5119**	**1.5000e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**149.0058**	**149.0058**	**3.8000e-003**		**149.1008**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7285	61.2559	13.2874	0.1371	3.2512	0.3054	3.5566	0.9365	0.2922	1.2287		14,447.63 91	14,447.63 91	1.4479		14,483.83 73
Worker	9.9129	5.9656	63.3250	0.1850	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		18,432.02 17	18,432.02 17	0.4697		18,443.76 47
Total	**11.6414**	**67.2215**	**76.6124**	**0.3221**	**23.9504**	**0.4347**	**24.3851**	**6.4268**	**0.4112**	**6.8380**		**32,879.66 07**	**32,879.66 07**	**1.9177**		**32,927.60 21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.063 1**	**2,553.063 1**	**0.6229**		**2,568.634 5**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7285	61.2559	13.2874	0.1371	3.2512	0.3054	3.5566	0.9365	0.2922	1.2287		14,447.63 91	14,447.63 91	1.4479		14,483.83 73
Worker	9.9129	5.9656	63.3250	0.1850	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		18,432.02 17	18,432.02 17	0.4697		18,443.76 47
Total	**11.6414**	**67.2215**	**76.6124**	**0.3221**	**23.9504**	**0.4347**	**24.3851**	**6.4268**	**0.4112**	**6.8380**		**32,879.66 07**	**32,879.66 07**	**1.9177**		**32,927.60 21**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.733 4**	**2,207.733 4**	**0.7140**		**2,225.584 1**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	142.2638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**142.5059**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9834	1.1936	12.6701	0.0370	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		3,687.8944	3,687.8944	0.0940		3,690.2440
Total	**1.9834**	**1.1936**	**12.6701**	**0.0370**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**3,687.8944**	**3,687.8944**	**0.0940**		**3,690.2440**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	142.2638					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**142.5059**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9834	1.1936	12.6701	0.0370	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		3,687.894 4	3,687.894 4	0.0940		3,690.244 0
Total	**1.9834**	**1.1936**	**12.6701**	**0.0370**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**3,687.894 4**	**3,687.894 4**	**0.0940**		**3,690.244 0**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Unmitigated	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
NaturalGas Unmitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69765.2	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1318.26	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7161.74	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3546.19	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69.7652	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1.31826	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100.046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7.16174	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3.54619	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138.982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Unmitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; VOC and T4 Mit)

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.4 **Precipitation Freq (Days)** 28

Climate Zone 10 **Operational Year** 2021

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 474.88 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Require residential and non-residential interior and exterior coatings meet the SCAQMD "super compliant" coating VOC content standard of less than 10 g/L VOC.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403. Require all off-road construction equipment >50hp meet U.S. EPA T4 Final emission standards.

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57

tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	7.4637	30.2101	26.5201	0.0740	7.1962	1.1099	8.3060	2.7626	1.0288	3.7914	0.0000	6,717.3220	6,717.3220	0.8923	0.0000	6,739.6301
Maximum	**7.4637**	**30.2101**	**26.5201**	**0.0740**	**7.1962**	**1.1099**	**8.3060**	**2.7626**	**1.0288**	**3.7914**	**0.0000**	**6,717.3220**	**6,717.3220**	**0.8923**	**0.0000**	**6,739.6301**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	5.8878	11.6725	27.1653	0.0740	5.0594	0.1752	5.2346	1.6816	0.1718	1.8534	0.0000	6,717.3193	6,717.3193	0.8923	0.0000	6,739.6274
Maximum	**5.8878**	**11.6725**	**27.1653**	**0.0740**	**5.0594**	**0.1752**	**5.2346**	**1.6816**	**0.1718**	**1.8534**	**0.0000**	**6,717.3193**	**6,717.3193**	**0.8923**	**0.0000**	**6,739.6274**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**21.11**	**61.36**	**-2.43**	**0.00**	**29.69**	**84.22**	**36.98**	**39.13**	**83.30**	**51.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	9.3352	4.3452
2	4-1-2020	6-30-2020	9.3620	4.3720
3	7-1-2020	9-30-2020	9.4649	4.4200
		Highest	9.4649	4.4200

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686
Energy	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	14,599.0998	14,599.0998	0.7000	0.1849	14,671.7004
Mobile	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068
Waste						0.0000	0.0000		0.0000	0.0000	982.1779	0.0000	982.1779	58.0451	0.0000	2,433.3041
Water						0.0000	0.0000		0.0000	0.0000	164.9734	1,855.5254	2,020.4988	17.0733	0.4157	2,571.2162
Total	**43.6060**	**130.7524**	**176.5507**	**0.6578**	**42.5461**	**1.1597**	**43.7058**	**11.3996**	**1.1323**	**12.5318**	**1,147.1512**	**75,224.6721**	**76,371.8234**	**79.5781**	**0.6387**	**78,551.5961**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686
Energy	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	14,599.0998	14,599.0998	0.7000	0.1849	14,671.7004
Mobile	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068
Waste						0.0000	0.0000		0.0000	0.0000	982.1779	0.0000	982.1779	58.0451	0.0000	2,433.3041
Water						0.0000	0.0000		0.0000	0.0000	164.9734	1,855.5254	2,020.4988	17.0733	0.4157	2,571.2162
Total	**43.6060**	**130.7524**	**176.5507**	**0.6578**	**42.5461**	**1.1597**	**43.7058**	**11.3996**	**1.1323**	**12.5318**	**1,147.1512**	**75,224.6721**	**76,371.8234**	**79.5781**	**0.6387**	**78,551.5961**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4339	4.3493	2.8497	5.0800e-003		0.2173	0.2173		0.2020	0.2020	0.0000	445.3818	445.3818	0.1257	0.0000	448.5250
Total	**0.4339**	**4.3493**	**2.8497**	**5.0800e-003**		**0.2173**	**0.2173**		**0.2020**	**0.2020**	**0.0000**	**445.3818**	**445.3818**	**0.1257**	**0.0000**	**448.5250**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1072	0.6590	3.0271	5.0800e-003		0.0329	0.0329		0.0329	0.0329	0.0000	445.3812	445.3812	0.1257	0.0000	448.5244
Total	**0.1072**	**0.6590**	**3.0271**	**5.0800e-003**		**0.0329**	**0.0329**		**0.0329**	**0.0329**	**0.0000**	**445.3812**	**445.3812**	**0.1257**	**0.0000**	**448.5244**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3667	0.0000	2.3667	1.3009	0.0000	1.3009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5340	5.5567	2.8183	4.9800e-003		0.2879	0.2879		0.2648	0.2648	0.0000	437.9419	437.9419	0.1416	0.0000	441.4829
Total	**0.5340**	**5.5567**	**2.8183**	**4.9800e-003**	**2.3667**	**0.2879**	**2.6545**	**1.3009**	**0.2648**	**1.5658**	**0.0000**	**437.9419**	**437.9419**	**0.1416**	**0.0000**	**441.4829**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7700e-003	5.8800e-003	0.0634	1.8000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2700e-003	0.0000	16.3454	16.3454	4.2000e-004	0.0000	16.3559
Total	**8.7700e-003**	**5.8800e-003**	**0.0634**	**1.8000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**16.3454**	**16.3454**	**4.2000e-004**	**0.0000**	**16.3559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9230	0.0000	0.9230	0.5074	0.0000	0.5074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0610	0.2643	2.7338	4.9800e-003		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	437.9414	437.9414	0.1416	0.0000	441.4824
Total	**0.0610**	**0.2643**	**2.7338**	**4.9800e-003**	**0.9230**	**8.1300e-003**	**0.9311**	**0.5074**	**8.1300e-003**	**0.5155**	**0.0000**	**437.9414**	**437.9414**	**0.1416**	**0.0000**	**441.4824**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7700e-003	5.8800e-003	0.0634	1.8000e-004	0.0194	1.2000e-004	0.0195	5.1500e-003	1.1000e-004	5.2700e-003	0.0000	16.3454	16.3454	4.2000e-004	0.0000	16.3559
Total	**8.7700e-003**	**5.8800e-003**	**0.0634**	**1.8000e-004**	**0.0194**	**1.2000e-004**	**0.0195**	**5.1500e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**16.3454**	**16.3454**	**4.2000e-004**	**0.0000**	**16.3559**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1362	0.0000	1.1362	0.4711	0.0000	0.4711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5830	6.5759	4.1865	8.1200e-003		0.2848	0.2848		0.2620	0.2620	0.0000	713.7442	713.7442	0.2308	0.0000	719.5152
Total	**0.5830**	**6.5759**	**4.1865**	**8.1200e-003**	**1.1362**	**0.2848**	**1.4210**	**0.4711**	**0.2620**	**0.7331**	**0.0000**	**713.7442**	**713.7442**	**0.2308**	**0.0000**	**719.5152**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7500e-003	6.5300e-003	0.0705	2.0000e-004	0.0216	1.4000e-004	0.0217	5.7200e-003	1.3000e-004	5.8500e-003	0.0000	18.1616	18.1616	4.7000e-004	0.0000	18.1732
Total	**9.7500e-003**	**6.5300e-003**	**0.0705**	**2.0000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7200e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**18.1616**	**18.1616**	**4.7000e-004**	**0.0000**	**18.1732**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4431	0.0000	0.4431	0.1838	0.0000	0.1838	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0998	0.4323	4.3229	8.1200e-003		0.0133	0.0133		0.0133	0.0133	0.0000	713.7434	713.7434	0.2308	0.0000	719.5144
Total	**0.0998**	**0.4323**	**4.3229**	**8.1200e-003**	**0.4431**	**0.0133**	**0.4564**	**0.1838**	**0.0133**	**0.1971**	**0.0000**	**713.7434**	**713.7434**	**0.2308**	**0.0000**	**719.5144**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7500e-003	6.5300e-003	0.0705	2.0000e-004	0.0216	1.4000e-004	0.0217	5.7200e-003	1.3000e-004	5.8500e-003	0.0000	18.1616	18.1616	4.7000e-004	0.0000	18.1732
Total	**9.7500e-003**	**6.5300e-003**	**0.0705**	**2.0000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7200e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**18.1616**	**18.1616**	**4.7000e-004**	**0.0000**	**18.1732**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2183	8.1604	1.5966	0.0184	0.4201	0.0397	0.4598	0.1213	0.0380	0.1592	0.0000	1,763.1956	1,763.1956	0.1619	0.0000	1,767.2435
Worker	1.2058	0.8075	8.7184	0.0249	2.6664	0.0169	2.6833	0.7081	0.0156	0.7237	0.0000	2,246.5843	2,246.5843	0.0576	0.0000	2,248.0249
Total	**1.4240**	**8.9679**	**10.3150**	**0.0433**	**3.0865**	**0.0566**	**3.1431**	**0.8294**	**0.0535**	**0.8829**	**0.0000**	**4,009.7799**	**4,009.7799**	**0.2195**	**0.0000**	**4,015.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1257	0.7854	2.2767	3.5300e-003		0.0409	0.0409		0.0409	0.0409	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	**0.1257**	**0.7854**	**2.2767**	**3.5300e-003**		**0.0409**	**0.0409**		**0.0409**	**0.0409**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2183	8.1604	1.5966	0.0184	0.4201	0.0397	0.4598	0.1213	0.0380	0.1592	0.0000	1,763.1956	1,763.1956	0.1619	0.0000	1,767.2435
Worker	1.2058	0.8075	8.7184	0.0249	2.6664	0.0169	2.6833	0.7081	0.0156	0.7237	0.0000	2,246.5843	2,246.5843	0.0576	0.0000	2,248.0249
Total	**1.4240**	**8.9679**	**10.3150**	**0.0433**	**3.0865**	**0.0566**	**3.1431**	**0.8294**	**0.0535**	**0.8829**	**0.0000**	**4,009.7799**	**4,009.7799**	**0.2195**	**0.0000**	**4,015.2684**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1777	1.8426	1.9194	2.9900e-003		0.0986	0.0986		0.0907	0.0907	0.0000	262.3697	262.3697	0.0849	0.0000	264.4911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1777**	**1.8426**	**1.9194**	**2.9900e-003**		**0.0986**	**0.0986**		**0.0907**	**0.0907**	**0.0000**	**262.3697**	**262.3697**	**0.0849**	**0.0000**	**264.4911**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0367	0.1592	2.2657	2.9900e-003		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	262.3694	262.3694	0.0849	0.0000	264.4908
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0367**	**0.1592**	**2.2657**	**2.9900e-003**		**4.9000e-003**	**4.9000e-003**		**4.9000e-003**	**4.9000e-003**	**0.0000**	**262.3694**	**262.3694**	**0.0849**	**0.0000**	**264.4908**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3100e-003	4.9000e-003	0.0529	1.5000e-004	0.0162	1.0000e-004	0.0163	4.2900e-003	9.0000e-005	4.3900e-003	0.0000	13.6212	13.6212	3.5000e-004	0.0000	13.6299
Total	**7.3100e-003**	**4.9000e-003**	**0.0529**	**1.5000e-004**	**0.0162**	**1.0000e-004**	**0.0163**	**4.2900e-003**	**9.0000e-005**	**4.3900e-003**	**0.0000**	**13.6212**	**13.6212**	**3.5000e-004**	**0.0000**	**13.6299**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.7273					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	**3.7590**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5124**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2413	0.1616	1.7444	4.9700e-003	0.5335	3.3900e-003	0.5369	0.1417	3.1200e-003	0.1448	0.0000	449.4985	449.4985	0.0115	0.0000	449.7867
Total	**0.2413**	**0.1616**	**1.7444**	**4.9700e-003**	**0.5335**	**3.3900e-003**	**0.5369**	**0.1417**	**3.1200e-003**	**0.1448**	**0.0000**	**449.4985**	**449.4985**	**0.0115**	**0.0000**	**449.7867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.7273					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	**3.7590**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5123**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2413	0.1616	1.7444	4.9700e-003	0.5335	3.3900e-003	0.5369	0.1417	3.1200e-003	0.1448	0.0000	449.4985	449.4985	0.0115	0.0000	449.7867
Total	**0.2413**	**0.1616**	**1.7444**	**4.9700e-003**	**0.5335**	**3.3900e-003**	**0.5369**	**0.1417**	**3.1200e-003**	**0.1448**	**0.0000**	**449.4985**	**449.4985**	**0.0115**	**0.0000**	**449.7867**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068
Unmitigated	15.0644	123.1616	148.0838	0.6106	42.5461	0.4435	42.9895	11.3996	0.4160	11.8156	0.0000	56,655.0794	56,655.0794	3.6811	0.0000	56,747.1068

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8,350.246 3	8,350.246 3	0.5803	0.0703	8,385.713 0
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8,350.246 3	8,350.246 3	0.5803	0.0703	8,385.713 0
NaturalGas Mitigated	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	6,248.853 5	6,248.853 5	0.1198	0.1146	6,285.987 4
NaturalGas Unmitigated	0.6314	5.5161	3.1784	0.0344		0.4363	0.4363		0.4363	0.4363	0.0000	6,248.853 5	6,248.853 5	0.1198	0.1146	6,285.987 4

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.54643e+007	0.1373	1.1734	0.4993	7.4900e-003		0.0949	0.0949		0.0949	0.0949	0.0000	1,358.8724	1,358.8724	0.0261	0.0249	1,366.9475
Elementary School	481164	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6768	25.6768	4.9000e-004	4.7000e-004	25.8293
General Light Industry	3.65168e+007	0.1969	1.7900	1.5036	0.0107		0.1360	0.1360		0.1360	0.1360	0.0000	1,948.6761	1,948.6761	0.0374	0.0357	1,960.2561
Hotel	2.61404e+006	0.0141	0.1281	0.1076	7.7000e-004		9.7400e-003	9.7400e-003		9.7400e-003	9.7400e-003	0.0000	139.4949	139.4949	2.6700e-003	2.5600e-003	140.3238
Regional Shopping Center	1.29436e+006	6.9800e-003	0.0635	0.0533	3.8000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	69.0719	69.0719	1.3200e-003	1.2700e-003	69.4824
Single Family Housing	5.07284e+007	0.2735	2.3375	0.9947	0.0149		0.1890	0.1890		0.1890	0.1890	0.0000	2,707.0615	2,707.0615	0.0519	0.0496	2,723.1482
Total		**0.6314**	**5.5161**	**3.1784**	**0.0344**		**0.4363**	**0.4363**		**0.4363**	**0.4363**	**0.0000**	**6,248.8535**	**6,248.8535**	**0.1198**	**0.1146**	**6,285.9873**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.54643e+007	0.1373	1.1734	0.4993	7.4900e-003		0.0949	0.0949		0.0949	0.0949	0.0000	1,358.8724	1,358.8724	0.0261	0.0249	1,366.9475
Elementary School	481164	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6768	25.6768	4.9000e-004	4.7000e-004	25.8293
General Light Industry	3.65168e+007	0.1969	1.7900	1.5036	0.0107		0.1360	0.1360		0.1360	0.1360	0.0000	1,948.6761	1,948.6761	0.0374	0.0357	1,960.2561
Hotel	2.61404e+006	0.0141	0.1281	0.1076	7.7000e-004		9.7400e-003	9.7400e-003		9.7400e-003	9.7400e-003	0.0000	139.4949	139.4949	2.6700e-003	2.5600e-003	140.3238
Regional Shopping Center	1.29436e+006	6.9800e-003	0.0635	0.0533	3.8000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	69.0719	69.0719	1.3200e-003	1.2700e-003	69.4824
Single Family Housing	5.07284e+007	0.2735	2.3375	0.9947	0.0149		0.1890	0.1890		0.1890	0.1890	0.0000	2,707.0615	2,707.0615	0.0519	0.0496	2,723.1482
Total		**0.6314**	**5.5161**	**3.1784**	**0.0344**		**0.4363**	**0.4363**		**0.4363**	**0.4363**	**0.0000**	**6,248.8535**	**6,248.8535**	**0.1198**	**0.1146**	**6,285.9873**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	7.22946e+006	1,557.2404	0.1082	0.0131	1,563.8546
Elementary School	350986	75.6031	5.2500e-003	6.4000e-004	75.9242
General Light Industry	1.04189e+007	2,244.2565	0.1560	0.0189	2,253.7887
Hotel	719176	154.9118	0.0108	1.3000e-003	155.5698
Regional Shopping Center	6.38434e+006	1,375.1982	0.0956	0.0116	1,381.0392
Single Family Housing	1.3663e+007	2,943.0363	0.2045	0.0248	2,955.5365
Total		**8,350.2463**	**0.5803**	**0.0703**	**8,385.7130**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	7.22946e +006	1,557.240 4	0.1082	0.0131	1,563.854 6
Elementary School	350986	75.6031	5.2500e-003	6.4000e-004	75.9242
General Light Industry	1.04189e +007	2,244.256 5	0.1560	0.0189	2,253.788 7
Hotel	719176	154.9118	0.0108	1.3000e-003	155.5698
Regional Shopping Center	6.38434e +006	1,375.198 2	0.0956	0.0116	1,381.039 2
Single Family Housing	1.3663e +007	2,943.036 3	0.2045	0.0248	2,955.536 5
Total		**8,350.246 3**	**0.5803**	**0.0703**	**8,385.713 0**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686
Unmitigated	27.9102	2.0748	25.2885	0.0127		0.2800	0.2800		0.2800	0.2800	0.0000	2,114.9676	2,114.9676	0.0786	0.0380	2,128.2686

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.0923					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2097	1.7917	0.7624	0.0114		0.1449	0.1449		0.1449	0.1449	0.0000	2,074.9847	2,074.9847	0.0398	0.0380	2,087.3153
Landscaping	0.7445	0.2831	24.5261	1.2900e-003		0.1352	0.1352		0.1352	0.1352	0.0000	39.9829	39.9829	0.0388	0.0000	40.9534
Total	**27.9102**	**2.0748**	**25.2885**	**0.0127**		**0.2800**	**0.2800**		**0.2800**	**0.2800**	**0.0000**	**2,114.9676**	**2,114.9676**	**0.0786**	**0.0380**	**2,128.2686**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.0923					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2097	1.7917	0.7624	0.0114		0.1449	0.1449		0.1449	0.1449	0.0000	2,074.984 7	2,074.984 7	0.0398	0.0380	2,087.315 3
Landscaping	0.7445	0.2831	24.5261	1.2900e-003		0.1352	0.1352		0.1352	0.1352	0.0000	39.9829	39.9829	0.0388	0.0000	40.9534
Total	**27.9102**	**2.0748**	**25.2885**	**0.0127**		**0.2800**	**0.2800**		**0.2800**	**0.2800**	**0.0000**	**2,114.967 6**	**2,114.967 6**	**0.0786**	**0.0380**	**2,128.268 6**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,020.498 8	17.0733	0.4157	2,571.216 2
Unmitigated	2,020.498 8	17.0733	0.4157	2,571.216 2

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	106.527 / 67.1582	493.2944	3.5031	0.0858	606.4502
Elementary School	1.59273 / 4.09558	14.7737	0.0529	1.3500e-003	16.4970
General Light Industry	259.911 / 0	811.4432	8.5199	0.2061	1,085.862 6
Hotel	0.761003 / 0.0845559	2.5782	0.0250	6.1000e-004	3.3826
Regional Shopping Center	43.1872 / 26.4696	198.1755	1.4201	0.0348	244.0425
Single Family Housing	108.025 / 68.103	500.2337	3.5524	0.0870	614.9814
Total		**2,020.498 8**	**17.0733**	**0.4157**	**2,571.216 2**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	106.527 / 67.1582	493.2944	3.5031	0.0858	606.4502
Elementary School	1.59273 / 4.09558	14.7737	0.0529	1.3500e-003	16.4970
General Light Industry	259.911 / 0	811.4432	8.5199	0.2061	1,085.8626
Hotel	0.761003 / 0.0845559	2.5782	0.0250	6.1000e-004	3.3826
Regional Shopping Center	43.1872 / 26.4696	198.1755	1.4201	0.0348	244.0425
Single Family Housing	108.025 / 68.103	500.2337	3.5524	0.0870	614.9814
Total		**2,020.4988**	**17.0733**	**0.4157**	**2,571.2162**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	982.1779	58.0451	0.0000	2,433.304 1
Unmitigated	982.1779	58.0451	0.0000	2,433.304 1

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	752.1	152.6695	9.0225	0.0000	378.2322
Elementary School	119.9	24.3386	1.4384	0.0000	60.2979
General Light Industry	1393.69	282.9065	16.7193	0.0000	700.8888
Hotel	16.43	3.3351	0.1971	0.0000	8.2627
Regional Shopping Center	612.19	124.2690	7.3441	0.0000	307.8713
Single Family Housing	1944.22	394.6591	23.3237	0.0000	977.7512
Total		**982.1779**	**58.0450**	**0.0000**	**2,433.3041**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	752.1	152.6695	9.0225	0.0000	378.2322
Elementary School	119.9	24.3386	1.4384	0.0000	60.2979
General Light Industry	1393.69	282.9065	16.7193	0.0000	700.8888
Hotel	16.43	3.3351	0.1971	0.0000	8.2627
Regional Shopping Center	612.19	124.2690	7.3441	0.0000	307.8713
Single Family Housing	1944.22	394.6591	23.3237	0.0000	977.7512
Total		**982.1779**	**58.0450**	**0.0000**	**2,433.3041**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; VOC and T4 Mit)

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.88	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Require residential and non-residential interior and exterior coatings meet the SCAQMD "super compliant" coating VOC content standard of less than 10 g/L VOC.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403. Require all off-road construction equipment >50hp meet U.S. EPA T4 Final emission standards.

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57

tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	58.3728	229.6885	214.5694	0.5881	55.4005	8.4704	63.8709	21.2034	7.8513	29.0547	0.0000	58,807.6808	58,807.6808	7.5058	0.0000	58,995.3245
Maximum	**58.3728**	**229.6885**	**214.5694**	**0.5881**	**55.4005**	**8.4704**	**63.8709**	**21.2034**	**7.8513**	**29.0547**	**0.0000**	**58,807.6808**	**58,807.6808**	**7.5058**	**0.0000**	**58,995.3245**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	46.3426	88.1802	219.4949	0.5881	39.0893	1.3353	40.4246	12.9518	1.3096	14.2615	0.0000	58,807.6808	58,807.6808	7.5058	0.0000	58,995.3245
Maximum	**46.3426**	**88.1802**	**219.4949**	**0.5881**	**39.0893**	**1.3353**	**40.4246**	**12.9518**	**1.3096**	**14.2615**	**0.0000**	**58,807.6808**	**58,807.6808**	**7.5058**	**0.0000**	**58,995.3245**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**20.61**	**61.61**	**-2.30**	**0.00**	**29.44**	**84.24**	**36.71**	**38.92**	**83.32**	**50.92**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388
Total	**279.1999**	**852.0717**	**1,331.9654**	**4.5848**	**274.2093**	**10.2218**	**284.4311**	**73.3696**	**10.0483**	**83.4179**	**0.0000**	**513,244.1871**	**513,244.1871**	**27.5807**	**1.7147**	**514,444.6949**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388
Total	**279.1999**	**852.0717**	**1,331.9654**	**4.5848**	**274.2093**	**10.2218**	**284.4311**	**73.3696**	**10.0483**	**83.4179**	**0.0000**	**513,244.1871**	**513,244.1871**	**27.5807**	**1.7147**	**514,444.6949**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8179	5.0307	23.1078	0.0388		0.2514	0.2514		0.2514	0.2514	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**0.8179**	**5.0307**	**23.1078**	**0.0388**		**0.2514**	**0.2514**		**0.2514**	**0.2514**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0420	0.5620	1.5000e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		149.4087	149.4087	3.9000e-003		149.5062
Total	**0.0755**	**0.0420**	**0.5620**	**1.5000e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**149.4087**	**149.4087**	**3.9000e-003**		**149.5062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.0458**	**0.0621**	**7.1079**	**3.8730**	**0.0621**	**3.9351**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0420	0.5620	1.5000e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		149.4087	149.4087	3.9000e-003		149.5062
Total	**0.0755**	**0.0420**	**0.5620**	**1.5000e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**149.4087**	**149.4087**	**3.9000e-003**		**149.5062**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0839	0.0466	0.6244	1.6700e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		166.0097	166.0097	4.3300e-003		166.1180
Total	**0.0839**	**0.0466**	**0.6244**	**1.6700e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**166.0097**	**166.0097**	**4.3300e-003**		**166.1180**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**3.3826**	**0.1015**	**3.4841**	**1.4026**	**0.1015**	**1.5042**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0839	0.0466	0.6244	1.6700e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		166.0097	166.0097	4.3300e-003		166.1180
Total	**0.0839**	**0.0466**	**0.6244**	**1.6700e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**166.0097**	**166.0097**	**4.3300e-003**		**166.1180**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6303	61.8588	11.1935	0.1434	3.2512	0.3010	3.5521	0.9365	0.2879	1.2244		15,118.199 9	15,118.199 9	1.2969		15,150.621 1
Worker	10.3721	5.7662	77.2412	0.2062	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		20,535.39 31	20,535.39 31	0.5360		20,548.79 41
Total	**12.0025**	**67.6250**	**88.4347**	**0.3496**	**23.9504**	**0.4302**	**24.3806**	**6.4268**	**0.4069**	**6.8337**		**35,653.59 30**	**35,653.59 30**	**1.8329**		**35,699.41 52**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9594	5.9956	17.3796	0.0269		0.3122	0.3122		0.3122	0.3122	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	**0.9594**	**5.9956**	**17.3796**	**0.0269**		**0.3122**	**0.3122**		**0.3122**	**0.3122**	**0.0000**	**2,553.063 1**	**2,553.063 1**	**0.6229**		**2,568.634 5**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6303	61.8588	11.1935	0.1434	3.2512	0.3010	3.5521	0.9365	0.2879	1.2244		15,118.199 9	15,118.199 9	1.2969		15,150.621 1
Worker	10.3721	5.7662	77.2412	0.2062	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		20,535.39 31	20,535.39 31	0.5360		20,548.79 41
Total	**12.0025**	**67.6250**	**88.4347**	**0.3496**	**23.9504**	**0.4302**	**24.3806**	**6.4268**	**0.4069**	**6.8337**		**35,653.59 30**	**35,653.59 30**	**1.8329**		**35,699.41 52**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.733 4**	**2,207.733 4**	**0.7140**		**2,225.584 1**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0629	0.0350	0.4683	1.2500e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		124.5072	124.5072	3.2500e-003		124.5885
Total	**0.0629**	**0.0350**	**0.4683**	**1.2500e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**124.5072**	**124.5072**	**3.2500e-003**		**124.5885**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**28.6949**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0753	1.1537	15.4545	0.0413	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		4,108.738 7	4,108.738 7	0.1073		4,111.4200
Total	**2.0753**	**1.1537**	**15.4545**	**0.0413**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**4,108.738 7**	**4,108.738 7**	**0.1073**		**4,111.420 0**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**28.6949**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0753	1.1537	15.4545	0.0413	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		4,108.738 7	4,108.738 7	0.1073		4,111.4200
Total	**2.0753**	**1.1537**	**15.4545**	**0.0413**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**4,108.738 7**	**4,108.738 7**	**0.1073**		**4,111.420 0**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388
Unmitigated	114.6499	775.0015	1,023.4416	4.1028	274.2093	2.7965	277.0058	73.3696	2.6230	75.9926		419,223.7236	419,223.7236	25.3126		419,856.5388

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
NaturalGas Unmitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69765.2	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1318.26	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7161.74	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3546.19	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69.7652	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1.31826	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100.046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7.16174	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3.54619	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138.982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Unmitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Incremental Growth; VOC and T4 Mit)

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	657.00	Student	1.26	54,927.41	0
General Light Industry	1,123.94	1000sqft	25.80	1,123,940.00	0
Hotel	30.00	Room	1.00	43,560.00	0
Apartments Low Rise	1,635.00	Dwelling Unit	102.19	1,635,000.00	4676
Single Family Housing	1,658.00	Dwelling Unit	538.31	2,984,400.00	4742
Regional Shopping Center	583.04	1000sqft	13.38	583,044.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	474.88	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Tables 3-1 and 3-5. For determining new development, existing MHP is accounted for as SFH and existing Gen Office is accounted for as Reg Shop Ctr.

Construction Phase - Schedule adjusted to account for construction emissions occuring over the course of one year.

Grading -

Architectural Coating - Require residential and non-residential interior and exterior coatings meet the SCAQMD "super compliant" coating VOC content standard of less than 10 g/L VOC.

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445.

Area Coating - Residential and Non-residential interior and exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Construction Off-road Equipment Mitigation - Watering three times per day for SCAQMD Rule 403. Require all off-road construction equipment >50hp meet U.S. EPA T4 Final emission standards.

Water And Wastewater -

Solid Waste -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	700.00	262.00
tblConstructionPhase	NumDays	420.00	262.00
tblConstructionPhase	NumDays	1,085.00	262.00
tblConstructionPhase	NumDays	10,850.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblConstructionPhase	NumDays	770.00	262.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81
tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57

tblEnergyUse	T24E	951.67	475.84
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberNoFireplace	163.50	326.00
tblFireplaces	NumberNoFireplace	165.80	331.00
tblFireplaces	NumberWood	163.50	0.00
tblFireplaces	NumberWood	165.80	0.00
tblLandUse	LandUseSquareFeet	583,040.00	583,044.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	474.88
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	81.75	0.00
tblWoodstoves	NumberCatalytic	82.90	0.00
tblWoodstoves	NumberNoncatalytic	81.75	0.00
tblWoodstoves	NumberNoncatalytic	82.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/day								lb/day			
2020	57.9073	229.3304	199.5802	0.5557	55.4005	8.4749	63.8754	21.2034	7.8556	29.0590	0.0000	55,555.0912	55,555.0912	7.5754	0.0000	55,744.4768
Maximum	**57.9073**	**229.3304**	**199.5802**	**0.5557**	**55.4005**	**8.4749**	**63.8754**	**21.2034**	**7.8556**	**29.0590**	**0.0000**	**55,555.0912**	**55,555.0912**	**7.5754**	**0.0000**	**55,744.4768**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/day								lb/day			
2020	45.8771	87.8221	204.5056	0.5557	39.0893	1.3397	40.4290	12.9518	1.3139	14.2658	0.0000	55,555.0912	55,555.0912	7.5754	0.0000	55,744.4768
Maximum	**45.8771**	**87.8221**	**204.5056**	**0.5557**	**39.0893**	**1.3397**	**40.4290**	**12.9518**	**1.3139**	**14.2658**	**0.0000**	**55,555.0912**	**55,555.0912**	**7.5754**	**0.0000**	**55,744.4768**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**20.77**	**61.70**	**-2.47**	**0.00**	**29.44**	**84.19**	**36.71**	**38.92**	**83.27**	**50.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Total	**260.3287**	**844.6270**	**1,231.2414**	**4.2542**	**274.2093**	**10.2674**	**284.4767**	**73.3696**	**10.0919**	**83.4615**	**0.0000**	**479,819.3902**	**479,819.3902**	**29.0719**	**1.7147**	**481,057.1782**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Energy	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
Mobile	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Total	**260.3287**	**844.6270**	**1,231.2414**	**4.2542**	**274.2093**	**10.2674**	**284.4767**	**73.3696**	**10.0919**	**83.4615**	**0.0000**	**479,819.3902**	**479,819.3902**	**29.0719**	**1.7147**	**481,057.1782**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	12/31/2020	5	262	
2	Site Preparation	Site Preparation	1/1/2020	12/31/2020	5	262	
3	Grading	Grading	1/1/2020	12/31/2020	5	262	
4	Building Construction	Building Construction	1/1/2020	12/31/2020	5	262	
5	Paving	Paving	1/1/2020	12/31/2020	5	262	
6	Architectural Coating	Architectural Coating	1/1/2020	12/31/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 655

Acres of Paving: 0

Residential Indoor: 9,354,285; Residential Outdoor: 3,118,095; Non-Residential Indoor: 2,708,208; Non-Residential Outdoor: 902,736; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,474.00	648.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	495.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8179	5.0307	23.1078	0.0388		0.2514	0.2514		0.2514	0.2514	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**0.8179**	**5.0307**	**23.1078**	**0.0388**		**0.2514**	**0.2514**		**0.2514**	**0.2514**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0434	0.4607	1.3500e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		134.1053	134.1053	3.4200e-003		134.1907
Total	**0.0721**	**0.0434**	**0.4607**	**1.3500e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**134.1053**	**134.1053**	**3.4200e-003**		**134.1907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.0458**	**0.0621**	**7.1079**	**3.8730**	**0.0621**	**3.9351**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0434	0.4607	1.3500e-003	0.1506	9.4000e-004	0.1515	0.0400	8.7000e-004	0.0408		134.1053	134.1053	3.4200e-003		134.1907
Total	**0.0721**	**0.0434**	**0.4607**	**1.3500e-003**	**0.1506**	**9.4000e-004**	**0.1515**	**0.0400**	**8.7000e-004**	**0.0408**		**134.1053**	**134.1053**	**3.4200e-003**		**134.1907**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0482	0.5119	1.5000e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		149.0058	149.0058	3.8000e-003		149.1008
Total	**0.0801**	**0.0482**	**0.5119**	**1.5000e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**149.0058**	**149.0058**	**3.8000e-003**		**149.1008**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**3.3826**	**0.1015**	**3.4841**	**1.4026**	**0.1015**	**1.5042**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0482	0.5119	1.5000e-003	0.1673	1.0400e-003	0.1684	0.0444	9.6000e-004	0.0454		149.0058	149.0058	3.8000e-003		149.1008
Total	**0.0801**	**0.0482**	**0.5119**	**1.5000e-003**	**0.1673**	**1.0400e-003**	**0.1684**	**0.0444**	**9.6000e-004**	**0.0454**		**149.0058**	**149.0058**	**3.8000e-003**		**149.1008**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7285	61.2559	13.2874	0.1371	3.2512	0.3054	3.5566	0.9365	0.2922	1.2287		14,447.63 91	14,447.63 91	1.4479		14,483.83 73
Worker	9.9129	5.9656	63.3250	0.1850	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		18,432.02 17	18,432.02 17	0.4697		18,443.76 47
Total	**11.6414**	**67.2215**	**76.6124**	**0.3221**	**23.9504**	**0.4347**	**24.3851**	**6.4268**	**0.4112**	**6.8380**		**32,879.66 07**	**32,879.66 07**	**1.9177**		**32,927.60 21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9594	5.9956	17.3796	0.0269		0.3122	0.3122		0.3122	0.3122	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	**0.9594**	**5.9956**	**17.3796**	**0.0269**		**0.3122**	**0.3122**		**0.3122**	**0.3122**	**0.0000**	**2,553.063 1**	**2,553.063 1**	**0.6229**		**2,568.634 5**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7285	61.2559	13.2874	0.1371	3.2512	0.3054	3.5566	0.9365	0.2922	1.2287		14,447.6391	14,447.6391	1.4479		14,483.8373
Worker	9.9129	5.9656	63.3250	0.1850	20.6992	0.1293	20.8285	5.4903	0.1190	5.6094		18,432.0217	18,432.0217	0.4697		18,443.7647
Total	**11.6414**	**67.2215**	**76.6124**	**0.3221**	**23.9504**	**0.4347**	**24.3851**	**6.4268**	**0.4112**	**6.8380**		**32,879.6607**	**32,879.6607**	**1.9177**		**32,927.6021**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0362	0.3839	1.1200e-003	0.1255	7.8000e-004	0.1263	0.0333	7.2000e-004	0.0340		111.7544	111.7544	2.8500e-003		111.8256
Total	**0.0601**	**0.0362**	**0.3839**	**1.1200e-003**	**0.1255**	**7.8000e-004**	**0.1263**	**0.0333**	**7.2000e-004**	**0.0340**		**111.7544**	**111.7544**	**2.8500e-003**		**111.8256**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**28.6949**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9834	1.1936	12.6701	0.0370	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		3,687.894 4	3,687.894 4	0.0940		3,690.244 0
Total	**1.9834**	**1.1936**	**12.6701**	**0.0370**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**3,687.894 4**	**3,687.894 4**	**0.0940**		**3,690.244 0**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**28.6949**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.9834	1.1936	12.6701	0.0370	4.1415	0.0259	4.1674	1.0985	0.0238	1.1223		3,687.894 4	3,687.894 4	0.0940		3,690.244 0
Total	**1.9834**	**1.1936**	**12.6701**	**0.0370**	**4.1415**	**0.0259**	**4.1674**	**1.0985**	**0.0238**	**1.1223**		**3,687.894 4**	**3,687.894 4**	**0.0940**		**3,690.244 0**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221
Unmitigated	95.7788	767.5569	922.7177	3.7722	274.2093	2.8421	277.0514	73.3696	2.6666	76.0362		385,798.9267	385,798.9267	26.8038		386,469.0221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	10,774.65	11,706.60	9924.45	24,128,165	24,128,165
Elementary School	847.53	0.00	0.00	1,475,976	1,475,976
General Light Industry	7,833.86	1,483.60	764.28	18,589,441	18,589,441
Hotel	245.10	245.70	178.50	349,982	349,982
Regional Shopping Center	24,895.81	29,134.51	14715.93	31,848,403	31,848,403
Single Family Housing	15,784.16	16,430.78	14291.96	35,037,706	35,037,706
Total	60,381.11	59,001.19	39,875.12	111,429,674	111,429,674

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Elementary School	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Light Industry	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Single Family Housing	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532
NaturalGas Unmitigated	3.4598	30.2250	17.4156	0.1887		2.3904	2.3904		2.3904	2.3904		37,743.4627	37,743.4627	0.7234	0.6920	37,967.7532

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69765.2	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1318.26	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7161.74	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3546.19	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	69.7652	0.7524	6.4293	2.7359	0.0410		0.5198	0.5198		0.5198	0.5198		8,207.6737	8,207.6737	0.1573	0.1505	8,256.4478
Elementary School	1.31826	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003		155.0892	155.0892	2.9700e-003	2.8400e-003	156.0108
General Light Industry	100.046	1.0789	9.8084	8.2391	0.0589		0.7454	0.7454		0.7454	0.7454		11,770.1243	11,770.1243	0.2256	0.2158	11,840.0683
Hotel	7.16174	0.0772	0.7021	0.5898	4.2100e-003		0.0534	0.0534		0.0534	0.0534		842.5578	842.5578	0.0162	0.0155	847.5647
Regional Shopping Center	3.54619	0.0382	0.3477	0.2920	2.0900e-003		0.0264	0.0264		0.0264	0.0264		417.1985	417.1985	8.0000e-003	7.6500e-003	419.6777
Single Family Housing	138.982	1.4988	12.8081	5.4503	0.0818		1.0356	1.0356		1.0356	1.0356		16,350.8192	16,350.8192	0.3134	0.2998	16,447.9840
Total		**3.4598**	**30.2250**	**17.4156**	**0.1887**		**2.3904**	**2.3904**		**2.3904**	**2.3904**		**37,743.4627**	**37,743.4627**	**0.7234**	**0.6920**	**37,967.7532**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030
Unmitigated	161.0901	46.8452	291.1081	0.2933		5.0349	5.0349		5.0349	5.0349	0.0000	56,277.0009	56,277.0009	1.5447	1.0228	56,620.4030

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	137.4923					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.1138	43.7001	18.5958	0.2789		3.5332	3.5332		3.5332	3.5332	0.0000	55,787.2941	55,787.2941	1.0693	1.0228	56,118.8101
Landscaping	8.2722	3.1451	272.5124	0.0144		1.5017	1.5017		1.5017	1.5017		489.7067	489.7067	0.4754		501.5928
Total	**161.0901**	**46.8452**	**291.1081**	**0.2933**		**5.0349**	**5.0349**		**5.0349**	**5.0349**	**0.0000**	**56,277.0009**	**56,277.0009**	**1.5447**	**1.0228**	**56,620.4030**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Proposed GP 2040)

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,290.00	Student	2.48	107,848.35	0
General Light Industry	1,259.65	1000sqft	431.13	1,259,650.60	0
Hotel	105.20	Room	55.75	64,807.50	0
Apartments Low Rise	2,060.80	Dwelling Unit	127.31	2,060,800.00	5894
Single Family Housing	3,305.60	Dwelling Unit	1,138.77	5,950,080.00	9454
Regional Shopping Center	710.51	1000sqft	16.31	710,512.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	53.58	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Table 3-5 Maximum Development Potential; inputs do not include public facilities (other than schools) or open space. Building square footage and acreage decreased by factor of 10 to prevent CalEEMod overflow.

Construction Phase - Future operationa run - no construction emissions modeled.

Trips and VMT - Future operational run - no construction emissions modeled.

Grading - Future operational run - no construction emissions modeled.

Architectural Coating -

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445. Modeling assumes existing development that remains has stoves/hearts per default values. (SFH includes existing Wood/Gas from Mobile Home Park).

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Water And Wastewater -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81

tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	NumberNoFireplace	206.08	378.00
tblFireplaces	NumberNoFireplace	330.56	505.00
tblFireplaces	NumberWood	206.08	34.50
tblFireplaces	NumberWood	330.56	156.50
tblLandUse	LandUseSquareFeet	1,259,650.00	1,259,650.60
tblLandUse	LandUseSquareFeet	152,750.40	64,807.50
tblLandUse	LandUseSquareFeet	710,510.00	710,512.30
tblLandUse	LotAcreage	28.92	431.13
tblLandUse	LotAcreage	3.51	55.75
tblLandUse	LotAcreage	128.80	127.31
tblLandUse	LotAcreage	1,073.25	1,138.77
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	925.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	701.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	3,503.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblWoodstoves	NumberCatalytic	103.04	17.25
tblWoodstoves	NumberCatalytic	165.28	78.25
tblWoodstoves	NumberNoncatalytic	103.04	17.25

tblWoodstoves	NumberNoncatalytic	165.28	78.25

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	49.8373	3.5303	52.3155	0.0486		2.1678	2.1678		2.1678	2.1678	195.2198	3,446.6233	3,641.8430	0.7245	0.0679	3,680.2010
Energy	0.9737	8.4597	4.5616	0.0531		0.6727	0.6727		0.6727	0.6727	0.0000	11,035.1186	11,035.1186	1.0464	0.2811	11,145.0499
Mobile	9.4967	106.1906	98.1360	0.6708	62.5078	0.2281	62.7359	16.7276	0.2129	16.9405	0.0000	62,787.2002	62,787.2002	2.6180	0.0000	62,852.6489
Waste						0.0000	0.0000		0.0000	0.0000	1,507.2363	0.0000	1,507.2363	89.0751	0.0000	3,734.1142
Water						0.0000	0.0000		0.0000	0.0000	221.8752	291.7958	513.6710	22.9684	0.5599	1,254.7245
Total	**60.3077**	**118.1806**	**155.0131**	**0.7725**	**62.5078**	**3.0686**	**65.5764**	**16.7276**	**3.0534**	**19.7810**	**1,924.3313**	**77,560.7379**	**79,485.0692**	**116.4324**	**0.9089**	**82,666.7385**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	49.8373	3.5303	52.3155	0.0486		2.1678	2.1678		2.1678	2.1678	195.2198	3,446.6233	3,641.8430	0.7245	0.0679	3,680.2010
Energy	0.9737	8.4597	4.5616	0.0531		0.6727	0.6727		0.6727	0.6727	0.0000	11,035.1186	11,035.1186	1.0464	0.2811	11,145.0499
Mobile	9.4967	106.1906	98.1360	0.6708	62.5078	0.2281	62.7359	16.7276	0.2129	16.9405	0.0000	62,787.2002	62,787.2002	2.6180	0.0000	62,852.6489
Waste						0.0000	0.0000		0.0000	0.0000	1,507.2363	0.0000	1,507.2363	89.0751	0.0000	3,734.1142
Water						0.0000	0.0000		0.0000	0.0000	221.8752	291.7958	513.6710	22.9684	0.5599	1,254.7245
Total	**60.3077**	**118.1806**	**155.0131**	**0.7725**	**62.5078**	**3.0686**	**65.5764**	**16.7276**	**3.0534**	**19.7810**	**1,924.3313**	**77,560.7379**	**79,485.0692**	**116.4324**	**0.9089**	**82,666.7385**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Desert Hot Springs GP (Proposed GP 2040) - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2039	1/1/2039	5	0	
2	Architectural Coating	Architectural Coating	1/13/2039	1/12/2039	5	0	
3	Site Preparation	Site Preparation	5/1/2039	5/1/2039	5	0	
4	Grading	Grading	5/1/2039	5/1/2039	5	0	
5	Building Construction	Building Construction	5/29/2039	5/29/2039	5	0	
6	Paving	Paving	11/14/2039	11/13/2039	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 16,222,032; Residential Outdoor: 5,407,344; Non-Residential Indoor: 3,214,228; Non-Residential Outdoor: 1,071,409; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.4967	106.1906	98.1360	0.6708	62.5078	0.2281	62.7359	16.7276	0.2129	16.9405	0.0000	62,787.2002	62,787.2002	2.6180	0.0000	62,852.6489
Unmitigated	9.4967	106.1906	98.1360	0.6708	62.5078	0.2281	62.7359	16.7276	0.2129	16.9405	0.0000	62,787.2002	62,787.2002	2.6180	0.0000	62,852.6489

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	13,580.67	14,755.33	12509.06	30,411,819	30,411,819
Elementary School	1,664.10	0.00	0.00	2,898,035	2,898,035
General Light Industry	8,779.76	1,662.74	856.56	20,834,021	20,834,021
Hotel	859.48	861.59	625.94	1,227,270	1,227,270
Regional Shopping Center	30,338.78	35,504.18	17933.27	38,811,418	38,811,418
Single Family Housing	31,469.31	32,758.50	28494.27	69,855,634	69,855,634
Total	86,692.11	85,542.33	60,419.10	164,038,196	164,038,196

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,399.1198	1,399.1198	0.8617	0.1045	1,451.7892
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,399.1198	1,399.1198	0.8617	0.1045	1,451.7892
NaturalGas Mitigated	0.9737	8.4597	4.5616	0.0531		0.6727	0.6727		0.6727	0.6727	0.0000	9,635.9988	9,635.9988	0.1847	0.1767	9,693.2607
NaturalGas Unmitigated	0.9737	8.4597	4.5616	0.0531		0.6727	0.6727		0.6727	0.6727	0.0000	9,635.9988	9,635.9988	0.1847	0.1767	9,693.2607

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.20959e+007	0.1731	1.4789	0.6293	9.4400e-003		0.1196	0.1196		0.1196	0.1196	0.0000	1,712.7610	1,712.7610	0.0328	0.0314	1,722.9391
Elementary School	944752	5.0900e-003	0.0463	0.0389	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4155	50.4155	9.7000e-004	9.2000e-004	50.7151
General Light Industry	4.0926e+007	0.2207	2.0062	1.6852	0.0120		0.1525	0.1525		0.1525	0.1525	0.0000	2,183.9698	2,183.9698	0.0419	0.0400	2,196.9480
Hotel	3.8891e+006	0.0210	0.1906	0.1601	1.1400e-003		0.0145	0.0145		0.0145	0.0145	0.0000	207.5371	207.5371	3.9800e-003	3.8000e-003	208.7704
Regional Shopping Center	1.57734e+006	8.5100e-003	0.0773	0.0650	4.6000e-004		5.8800e-003	5.8800e-003		5.8800e-003	5.8800e-003	0.0000	84.1727	84.1727	1.6100e-003	1.5400e-003	84.6729
Single Family Housing	1.01139e+008	0.5454	4.6603	1.9831	0.0298		0.3768	0.3768		0.3768	0.3768	0.0000	5,397.1426	5,397.1426	0.1035	0.0990	5,429.2152
Total		**0.9737**	**8.4597**	**4.5616**	**0.0531**		**0.6727**	**0.6727**		**0.6727**	**0.6727**	**0.0000**	**9,635.9988**	**9,635.9988**	**0.1847**	**0.1767**	**9,693.2607**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.20959e +007	0.1731	1.4789	0.6293	9.4400e-003		0.1196	0.1196		0.1196	0.1196	0.0000	1,712.7610	1,712.7610	0.0328	0.0314	1,722.9391
Elementary School	944752	5.0900e-003	0.0463	0.0389	2.8000e-004		3.5200e-003	3.5200e-003		3.5200e-003	3.5200e-003	0.0000	50.4155	50.4155	9.7000e-004	9.2000e-004	50.7151
General Light Industry	4.0926e +007	0.2207	2.0062	1.6852	0.0120		0.1525	0.1525		0.1525	0.1525	0.0000	2,183.9698	2,183.9698	0.0419	0.0400	2,196.9480
Hotel	3.8891e +006	0.0210	0.1906	0.1601	1.1400e-003		0.0145	0.0145		0.0145	0.0145	0.0000	207.5371	207.5371	3.9800e-003	3.8000e-003	208.7704
Regional Shopping Center	1.57734e +006	8.5100e-003	0.0773	0.0650	4.6000e-004		5.8800e-003	5.8800e-003		5.8800e-003	5.8800e-003	0.0000	84.1727	84.1727	1.6100e-003	1.5400e-003	84.6729
Single Family Housing	1.01139e +008	0.5454	4.6603	1.9831	0.0298		0.3768	0.3768		0.3768	0.3768	0.0000	5,397.1426	5,397.1426	0.1035	0.0990	5,429.2152
Total		**0.9737**	**8.4597**	**4.5616**	**0.0531**		**0.6727**	**0.6727**		**0.6727**	**0.6727**	**0.0000**	**9,635.9988**	**9,635.9988**	**0.1847**	**0.1767**	**9,693.2607**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	9.11222e +006	221.4586	0.1364	0.0165	229.7954
Elementary School	689151	16.7488	0.0103	1.2500e-003	17.3793
General Light Industry	1.1677e +007	283.7908	0.1748	0.0212	294.4740
Hotel	1.06997e +006	26.0040	0.0160	1.9400e-003	26.9830
Regional Shopping Center	7.78011e +006	189.0837	0.1165	0.0141	196.2017
Single Family Housing	2.72403e +007	662.0339	0.4078	0.0494	686.9559
Total		**1,399.1198**	**0.8617**	**0.1045**	**1,451.7892**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	9.11222e +006	221.4586	0.1364	0.0165	229.7954
Elementary School	689151	16.7488	0.0103	1.2500e-003	17.3793
General Light Industry	1.1677e +007	283.7908	0.1748	0.0212	294.4740
Hotel	1.06997e +006	26.0040	0.0160	1.9400e-003	26.9830
Regional Shopping Center	7.78011e +006	189.0837	0.1165	0.0141	196.2017
Single Family Housing	2.72403e +007	662.0339	0.4078	0.0494	686.9559
Total		**1,399.1198**	**0.8617**	**0.1045**	**1,451.7892**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	49.8373	3.5303	52.3155	0.0486		2.1678	2.1678		2.1678	2.1678	195.2198	3,446.6233	3,641.8430	0.7245	0.0679	3,680.2010
Unmitigated	49.8373	3.5303	52.3155	0.0486		2.1678	2.1678		2.1678	2.1678	195.2198	3,446.6233	3,641.8430	0.7245	0.0679	3,680.2010

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.0029					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	39.6553					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.9898	3.0721	12.6137	0.0465		1.9467	1.9467		1.9467	1.9467	195.2198	3,381.4752	3,576.6949	0.6624	0.0679	3,613.5002
Landscaping	1.1893	0.4582	39.7018	2.1100e-003		0.2211	0.2211		0.2211	0.2211	0.0000	65.1481	65.1481	0.0621	0.0000	66.7008
Total	**49.8373**	**3.5303**	**52.3155**	**0.0486**		**2.1678**	**2.1678**		**2.1678**	**2.1678**	**195.2198**	**3,446.6233**	**3,641.8430**	**0.7245**	**0.0679**	**3,680.2010**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.0029					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	39.6553					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.9898	3.0721	12.6137	0.0465		1.9467	1.9467		1.9467	1.9467	195.2198	3,381.4752	3,576.6949	0.6624	0.0679	3,613.5002
Landscaping	1.1893	0.4582	39.7018	2.1100e-003		0.2211	0.2211		0.2211	0.2211	0.0000	65.1481	65.1481	0.0621	0.0000	66.7008
Total	**49.8373**	**3.5303**	**52.3155**	**0.0486**		**2.1678**	**2.1678**		**2.1678**	**2.1678**	**195.2198**	**3,446.6233**	**3,641.8430**	**0.7245**	**0.0679**	**3,680.2010**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	513.6710	22.9684	0.5599	1,254.724 5
Unmitigated	513.6710	22.9684	0.5599	1,254.724 5

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	134.269 / 84.6481	107.9438	4.4154	0.1082	250.5686
Elementary School	3.12727 / 8.04155	4.1531	0.1039	2.6400e-003	7.5367
General Light Industry	291.294 / 0	184.5958	9.5486	0.2310	492.1500
Hotel	2.66858 / 0.296509	1.7712	0.0875	2.1200e-003	4.5917
Regional Shopping Center	52.6293 / 32.2566	42.0613	1.7306	0.0424	97.9563
Single Family Housing	215.373 / 135.779	173.1458	7.0825	0.1735	401.9213
Total		**513.6710**	**22.9684**	**0.5599**	**1,254.7245**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	134.269 / 84.6481	107.9438	4.4154	0.1082	250.5686
Elementary School	3.12727 / 8.04155	4.1531	0.1039	2.6400e-003	7.5367
General Light Industry	291.294 / 0	184.5958	9.5486	0.2310	492.1500
Hotel	2.66858 / 0.296509	1.7712	0.0875	2.1200e-003	4.5917
Regional Shopping Center	52.6293 / 32.2566	42.0613	1.7306	0.0424	97.9563
Single Family Housing	215.373 / 135.779	173.1458	7.0825	0.1735	401.9213
Total		**513.6710**	**22.9684**	**0.5599**	**1,254.7245**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,507.236 3	89.0751	0.0000	3,734.1142
Unmitigated	1,507.236 3	89.0751	0.0000	3,734.1142

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	947.97	192.4293	11.3723	0.0000	476.7356
Elementary School	235.42	47.7881	2.8242	0.0000	118.3931
General Light Industry	1561.97	317.0658	18.7381	0.0000	785.5171
Hotel	57.6	11.6923	0.6910	0.0000	28.9671
Regional Shopping Center	746.04	151.4394	8.9498	0.0000	375.1847
Single Family Housing	3876.14	786.8214	46.4998	0.0000	1,949.316 7
Total		**1,507.236 3**	**89.0751**	**0.0000**	**3,734.114 2**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	947.97	192.4293	11.3723	0.0000	476.7356
Elementary School	235.42	47.7881	2.8242	0.0000	118.3931
General Light Industry	1561.97	317.0658	18.7381	0.0000	785.5171
Hotel	57.6	11.6923	0.6910	0.0000	28.9671
Regional Shopping Center	746.04	151.4394	8.9498	0.0000	375.1847
Single Family Housing	3876.14	786.8214	46.4998	0.0000	1,949.316 7
Total		**1,507.236 3**	**89.0751**	**0.0000**	**3,734.114 2**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Proposed GP 2040)

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,290.00	Student	2.48	107,848.35	0
General Light Industry	1,259.65	1000sqft	431.13	1,259,650.60	0
Hotel	105.20	Room	55.75	64,807.50	0
Apartments Low Rise	2,060.80	Dwelling Unit	127.31	2,060,800.00	5894
Single Family Housing	3,305.60	Dwelling Unit	1,138.77	5,950,080.00	9454
Regional Shopping Center	710.51	1000sqft	16.31	710,512.30	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.4 **Precipitation Freq (Days)** 28

Climate Zone 10 **Operational Year** 2040

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 53.58 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Table 3-5 Maximum Development Potential; inputs do not include public facilities (other than schools) or open space. Building square footage and acreage decreased by factor of 10 to prevent CalEEMod overflow.

Construction Phase - Future operationa run - no construction emissions modeled.

Trips and VMT - Future operational run - no construction emissions modeled.

Grading - Future operational run - no construction emissions modeled.

Architectural Coating -

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445. Modeling assumes existing development that remains has stoves/hearts per default values. (SFH includes existing Wood/Gas from Mobile Home Park).

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Water And Wastewater -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81

tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	NumberNoFireplace	206.08	378.00
tblFireplaces	NumberNoFireplace	330.56	505.00
tblFireplaces	NumberWood	206.08	34.50
tblFireplaces	NumberWood	330.56	156.50
tblLandUse	LandUseSquareFeet	1,259,650.00	1,259,650.60
tblLandUse	LandUseSquareFeet	152,750.40	64,807.50
tblLandUse	LandUseSquareFeet	710,510.00	710,512.30
tblLandUse	LotAcreage	28.92	431.13
tblLandUse	LotAcreage	3.51	55.75
tblLandUse	LotAcreage	128.80	127.31
tblLandUse	LotAcreage	1,073.25	1,138.77
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	925.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	701.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	3,503.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblWoodstoves	NumberCatalytic	103.04	17.25
tblWoodstoves	NumberCatalytic	165.28	78.25
tblWoodstoves	NumberNoncatalytic	103.04	17.25

tblWoodstoves	NumberNoncatalytic	165.28	78.25

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.1973	0.0000	0.0000	0.1973	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.1973	0.0000	0.0000	0.1973	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Desert Hot Springs GP (Proposed GP 2040) - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.6092	91,711.0570	96,959.6662	18.5687	1.8266	97,968.2174
Energy	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
Mobile	70.8287	666.8457	670.4608	4.4162	396.3956	1.4213	397.8169	105.9351	1.3261	107.2611		455,197.2476	455,197.2476	17.6739		455,639.0937
Total	**469.2146**	**793.2204**	**1,444.2384**	**5.8640**	**396.3956**	**55.0446**	**451.4402**	**105.9351**	**54.9494**	**160.8845**	**5,248.6092**	**605,110.3345**	**610,358.9437**	**37.3581**	**2.8937**	**612,155.2067**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.6092	91,711.0570	96,959.6662	18.5687	1.8266	97,968.2174
Energy	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
Mobile	70.8287	666.8457	670.4608	4.4162	396.3956	1.4213	397.8169	105.9351	1.3261	107.2611		455,197.2476	455,197.2476	17.6739		455,639.0937
Total	**469.2146**	**793.2204**	**1,444.2384**	**5.8640**	**396.3956**	**55.0446**	**451.4402**	**105.9351**	**54.9494**	**160.8845**	**5,248.6092**	**605,110.3345**	**610,358.9437**	**37.3581**	**2.8937**	**612,155.2067**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2039	1/1/2039	5	0	
2	Architectural Coating	Architectural Coating	1/13/2039	1/12/2039	5	0	
3	Site Preparation	Site Preparation	5/1/2039	5/1/2039	5	0	
4	Grading	Grading	5/1/2039	5/1/2039	5	0	
5	Building Construction	Building Construction	5/29/2039	5/29/2039	5	0	
6	Paving	Paving	11/14/2039	11/13/2039	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 16,222,032; Residential Outdoor: 5,407,344; Non-Residential Indoor: 3,214,228; Non-Residential Outdoor: 1,071,409; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Desert Hot Springs GP (Proposed GP 2040) - Riverside-Salton Sea County, Summer

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	70.8287	666.8457	670.4608	4.4162	396.3956	1.4213	397.8169	105.9351	1.3261	107.2611		455,197.2476	455,197.2476	17.6739		455,639.0937
Unmitigated	70.8287	666.8457	670.4608	4.4162	396.3956	1.4213	397.8169	105.9351	1.3261	107.2611		455,197.2476	455,197.2476	17.6739		455,639.0937

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	13,580.67	14,755.33	12509.06	30,411,819	30,411,819
Elementary School	1,664.10	0.00	0.00	2,898,035	2,898,035
General Light Industry	8,779.76	1,662.74	856.56	20,834,021	20,834,021
Hotel	859.48	861.59	625.94	1,227,270	1,227,270
Regional Shopping Center	30,338.78	35,504.18	17933.27	38,811,418	38,811,418
Single Family Housing	31,469.31	32,758.50	28494.27	69,855,634	69,855,634
Total	86,692.11	85,542.33	60,419.10	164,038,196	164,038,196

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
NaturalGas Unmitigated	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	87934.1	0.9483	8.1037	3.4484	0.0517		0.6552	0.6552		0.6552	0.6552		10,345.1828	10,345.1828	0.1983	0.1897	10,406.6590
Elementary School	2588.36	0.0279	0.2538	0.2132	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.5130	304.5130	5.8400e-003	5.5800e-003	306.3226
General Light Industry	112126	1.2092	10.9928	9.2339	0.0660		0.8355	0.8355		0.8355	0.8355		13,191.3128	13,191.3128	0.2528	0.2418	13,269.7022
Hotel	10655.1	0.1149	1.0446	0.8775	6.2700e-003		0.0794	0.0794		0.0794	0.0794		1,253.5369	1,253.5369	0.0240	0.0230	1,260.9860
Regional Shopping Center	4321.47	0.0466	0.4237	0.3559	2.5400e-003		0.0322	0.0322		0.0322	0.0322		508.4085	508.4085	9.7400e-003	9.3200e-003	511.4297
Single Family Housing	277092	2.9883	25.5359	10.8664	0.1630		2.0646	2.0646		2.0646	2.0646		32,599.0761	32,599.0761	0.6248	0.5977	32,792.7961
Total		**5.3352**	**46.3545**	**24.9952**	**0.2910**		**3.6861**	**3.6861**		**3.6861**	**3.6861**		**58,202.0300**	**58,202.0300**	**1.1155**	**1.0670**	**58,547.8955**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	87.9341	0.9483	8.1037	3.4484	0.0517		0.6552	0.6552		0.6552	0.6552		10,345.1828	10,345.1828	0.1983	0.1897	10,406.6590
Elementary School	2.58836	0.0279	0.2538	0.2132	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.5130	304.5130	5.8400e-003	5.5800e-003	306.3226
General Light Industry	112.126	1.2092	10.9928	9.2339	0.0660		0.8355	0.8355		0.8355	0.8355		13,191.3128	13,191.3128	0.2528	0.2418	13,269.7022
Hotel	10.6551	0.1149	1.0446	0.8775	6.2700e-003		0.0794	0.0794		0.0794	0.0794		1,253.5369	1,253.5369	0.0240	0.0230	1,260.9860
Regional Shopping Center	4.32147	0.0466	0.4237	0.3559	2.5400e-003		0.0322	0.0322		0.0322	0.0322		508.4085	508.4085	9.7400e-003	9.3200e-003	511.4297
Single Family Housing	277.092	2.9883	25.5359	10.8664	0.1630		2.0646	2.0646		2.0646	2.0646		32,599.0761	32,599.0761	0.6248	0.5977	32,792.7961
Total		**5.3352**	**46.3545**	**24.9952**	**0.2910**		**3.6861**	**3.6861**		**3.6861**	**3.6861**		**58,202.0300**	**58,202.0300**	**1.1155**	**1.0670**	**58,547.8955**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.609 2	91,711.057 0	96,959.66 62	18.5687	1.8266	97,968.21 74
Unmitigated	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.609 2	91,711.057 0	96,959.66 62	18.5687	1.8266	97,968.21 74

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	217.2892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	146.0925	74.9293	307.6512	1.1334		47.4808	47.4808		47.4808	47.4808	5,248.609 2	90,913.12 94	96,161.73 86	17.8080	1.8266	97,151.27 25
Landscaping	13.2149	5.0909	441.1313	0.0234		2.4564	2.4564		2.4564	2.4564		797.9276	797.9276	0.7607		816.9449
Total	**393.0508**	**80.0202**	**748.7825**	**1.1568**		**49.9372**	**49.9372**		**49.9372**	**49.9372**	**5,248.609 2**	**91,711.05 70**	**96,959.66 62**	**18.5687**	**1.8266**	**97,968.21 74**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	217.2892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	146.0925	74.9293	307.6512	1.1334		47.4808	47.4808		47.4808	47.4808	5,248.609 2	90,913.12 94	96,161.73 86	17.8080	1.8266	97,151.27 25
Landscaping	13.2149	5.0909	441.1313	0.0234		2.4564	2.4564		2.4564	2.4564		797.9276	797.9276	0.7607		816.9449
Total	**393.0508**	**80.0202**	**748.7825**	**1.1568**		**49.9372**	**49.9372**		**49.9372**	**49.9372**	**5,248.609 2**	**91,711.05 70**	**96,959.66 62**	**18.5687**	**1.8266**	**97,968.21 74**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GP (Proposed GP 2040)

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,290.00	Student	2.48	107,848.35	0
General Light Industry	1,259.65	1000sqft	431.13	1,259,650.60	0
Hotel	105.20	Room	55.75	64,807.50	0
Apartments Low Rise	2,060.80	Dwelling Unit	127.31	2,060,800.00	5894
Single Family Housing	3,305.60	Dwelling Unit	1,138.77	5,950,080.00	9454
Regional Shopping Center	710.51	1000sqft	16.31	710,512.30	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	53.58	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason. GHG intensity factors adjusted to reflect estimated SCE 2030 RPS energy mix.

Land Use - Source: EIR Table 3-5 Maximum Development Potential; inputs do not include public facilities (other than schools) or open space. Building square footage and acreage decreased by factor of 10 to prevent CalEEMod overflow.

Construction Phase - Future operationa run - no construction emissions modeled.

Trips and VMT - Future operational run - no construction emissions modeled.

Grading - Future operational run - no construction emissions modeled.

Architectural Coating -

Woodstoves - Wood burning devices excluded from new development pursuant to SCAQMD Rule 445. Modeling assumes existing development that remains has stoves/hearts per default values. (SFH includes existing Wood/Gas from Mobile Home Park).

Area Coating - Residential and Non-Residential Interior and Exterior coatings are required to meet 50 g/L VOC content per SCAQMD Rule 1113.

Energy Use - T24 standards adjusted downwards to reflect increased efficiency between 2016-2019 standards (CEC, 2017).

Water And Wastewater -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblEnergyUse	LightingElect	3.03	2.12
tblEnergyUse	LightingElect	2.93	2.05
tblEnergyUse	LightingElect	5.44	3.81

tblEnergyUse	LightingElect	5.61	3.93
tblEnergyUse	T24E	877.14	438.57
tblEnergyUse	T24E	951.67	475.84
tblFireplaces	NumberNoFireplace	206.08	378.00
tblFireplaces	NumberNoFireplace	330.56	505.00
tblFireplaces	NumberWood	206.08	34.50
tblFireplaces	NumberWood	330.56	156.50
tblLandUse	LandUseSquareFeet	1,259,650.00	1,259,650.60
tblLandUse	LandUseSquareFeet	152,750.40	64,807.50
tblLandUse	LandUseSquareFeet	710,510.00	710,512.30
tblLandUse	LotAcreage	28.92	431.13
tblLandUse	LotAcreage	3.51	55.75
tblLandUse	LotAcreage	128.80	127.31
tblLandUse	LotAcreage	1,073.25	1,138.77
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	702.44	53.58
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	VendorTripNumber	925.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	701.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	3,503.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblWoodstoves	NumberCatalytic	103.04	17.25
tblWoodstoves	NumberCatalytic	165.28	78.25
tblWoodstoves	NumberNoncatalytic	103.04	17.25

tblWoodstoves	NumberNoncatalytic	165.28	78.25

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.1973	0.0000	0.0000	0.1973	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.1973	0.0000	0.0000	0.1973	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.1973**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.6092	91,711.0570	96,959.6662	18.5687	1.8266	97,968.2174
Energy	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
Mobile	59.2883	653.6761	604.3752	4.0753	396.3956	1.4313	397.8269	105.9351	1.3357	107.2707		420,513.1884	420,513.1884	18.7487		420,981.9069
Total	**457.6743**	**780.0507**	**1,378.1529**	**5.5231**	**396.3956**	**55.0547**	**451.4502**	**105.9351**	**54.9590**	**160.8941**	**5,248.6092**	**570,426.2753**	**575,674.8845**	**38.4330**	**2.8937**	**577,498.0198**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.6092	91,711.0570	96,959.6662	18.5687	1.8266	97,968.2174
Energy	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
Mobile	59.2883	653.6761	604.3752	4.0753	396.3956	1.4313	397.8269	105.9351	1.3357	107.2707		420,513.1884	420,513.1884	18.7487		420,981.9069
Total	**457.6743**	**780.0507**	**1,378.1529**	**5.5231**	**396.3956**	**55.0547**	**451.4502**	**105.9351**	**54.9590**	**160.8941**	**5,248.6092**	**570,426.2753**	**575,674.8845**	**38.4330**	**2.8937**	**577,498.0198**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2039	1/1/2039	5	0	
2	Architectural Coating	Architectural Coating	1/13/2039	1/12/2039	5	0	
3	Site Preparation	Site Preparation	5/1/2039	5/1/2039	5	0	
4	Grading	Grading	5/1/2039	5/1/2039	5	0	
5	Building Construction	Building Construction	5/29/2039	5/29/2039	5	0	
6	Paving	Paving	11/14/2039	11/13/2039	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 16,222,032; Residential Outdoor: 5,407,344; Non-Residential Indoor: 3,214,228; Non-Residential Outdoor: 1,071,409; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Architectural Coating	Air Compressors	1	6.00	78	0.48
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Site Preparation - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	59.2883	653.6761	604.3752	4.0753	396.3956	1.4313	397.8269	105.9351	1.3357	107.2707		420,513.1884	420,513.1884	18.7487		420,981.9069
Unmitigated	59.2883	653.6761	604.3752	4.0753	396.3956	1.4313	397.8269	105.9351	1.3357	107.2707		420,513.1884	420,513.1884	18.7487		420,981.9069

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	13,580.67	14,755.33	12509.06	30,411,819	30,411,819
Elementary School	1,664.10	0.00	0.00	2,898,035	2,898,035
General Light Industry	8,779.76	1,662.74	856.56	20,834,021	20,834,021
Hotel	859.48	861.59	625.94	1,227,270	1,227,270
Regional Shopping Center	30,338.78	35,504.18	17933.27	38,811,418	38,811,418
Single Family Housing	31,469.31	32,758.50	28494.27	69,855,634	69,855,634
Total	86,692.11	85,542.33	60,419.10	164,038,196	164,038,196

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Elementary School	12.50	4.20	5.40	65.00	30.00	5.00	63	25	12
General Light Industry	12.50	4.20	5.40	59.00	28.00	13.00	92	5	3
Hotel	12.50	4.20	5.40	19.40	61.60	19.00	58	38	4
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Elementary School	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
General Light Industry	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Hotel	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Regional Shopping Center	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512
Single Family Housing	0.566189	0.033707	0.192293	0.100413	0.008756	0.004001	0.016522	0.070107	0.001420	0.001057	0.004327	0.000696	0.000512

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955
NaturalGas Unmitigated	5.3352	46.3545	24.9952	0.2910		3.6861	3.6861		3.6861	3.6861		58,202.0300	58,202.0300	1.1155	1.0670	58,547.8955

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	87934.1	0.9483	8.1037	3.4484	0.0517		0.6552	0.6552		0.6552	0.6552		10,345.1828	10,345.1828	0.1983	0.1897	10,406.6590
Elementary School	2588.36	0.0279	0.2538	0.2132	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.5130	304.5130	5.8400e-003	5.5800e-003	306.3226
General Light Industry	112126	1.2092	10.9928	9.2339	0.0660		0.8355	0.8355		0.8355	0.8355		13,191.3128	13,191.3128	0.2528	0.2418	13,269.7022
Hotel	10655.1	0.1149	1.0446	0.8775	6.2700e-003		0.0794	0.0794		0.0794	0.0794		1,253.5369	1,253.5369	0.0240	0.0230	1,260.9860
Regional Shopping Center	4321.47	0.0466	0.4237	0.3559	2.5400e-003		0.0322	0.0322		0.0322	0.0322		508.4085	508.4085	9.7400e-003	9.3200e-003	511.4297
Single Family Housing	277092	2.9883	25.5359	10.8664	0.1630		2.0646	2.0646		2.0646	2.0646		32,599.0761	32,599.0761	0.6248	0.5977	32,792.7961
Total		**5.3352**	**46.3545**	**24.9952**	**0.2910**		**3.6861**	**3.6861**		**3.6861**	**3.6861**		**58,202.0300**	**58,202.0300**	**1.1155**	**1.0670**	**58,547.8955**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	87.9341	0.9483	8.1037	3.4484	0.0517		0.6552	0.6552		0.6552	0.6552		10,345.1828	10,345.1828	0.1983	0.1897	10,406.6590
Elementary School	2.58836	0.0279	0.2538	0.2132	1.5200e-003		0.0193	0.0193		0.0193	0.0193		304.5130	304.5130	5.8400e-003	5.5800e-003	306.3226
General Light Industry	112.126	1.2092	10.9928	9.2339	0.0660		0.8355	0.8355		0.8355	0.8355		13,191.3128	13,191.3128	0.2528	0.2418	13,269.7022
Hotel	10.6551	0.1149	1.0446	0.8775	6.2700e-003		0.0794	0.0794		0.0794	0.0794		1,253.5369	1,253.5369	0.0240	0.0230	1,260.9860
Regional Shopping Center	4.32147	0.0466	0.4237	0.3559	2.5400e-003		0.0322	0.0322		0.0322	0.0322		508.4085	508.4085	9.7400e-003	9.3200e-003	511.4297
Single Family Housing	277.092	2.9883	25.5359	10.8664	0.1630		2.0646	2.0646		2.0646	2.0646		32,599.0761	32,599.0761	0.6248	0.5977	32,792.7961
Total		**5.3352**	**46.3545**	**24.9952**	**0.2910**		**3.6861**	**3.6861**		**3.6861**	**3.6861**		**58,202.0300**	**58,202.0300**	**1.1155**	**1.0670**	**58,547.8955**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.609 2	91,711.057 0	96,959.66 62	18.5687	1.8266	97,968.21 74
Unmitigated	393.0508	80.0202	748.7825	1.1568		49.9372	49.9372		49.9372	49.9372	5,248.609 2	91,711.057 0	96,959.66 62	18.5687	1.8266	97,968.21 74

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	217.2892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	146.0925	74.9293	307.6512	1.1334		47.4808	47.4808		47.4808	47.4808	5,248.609 2	90,913.12 94	96,161.73 86	17.8080	1.8266	97,151.27 25
Landscaping	13.2149	5.0909	441.1313	0.0234		2.4564	2.4564		2.4564	2.4564		797.9276	797.9276	0.7607		816.9449
Total	**393.0508**	**80.0202**	**748.7825**	**1.1568**		**49.9372**	**49.9372**		**49.9372**	**49.9372**	**5,248.609 2**	**91,711.05 70**	**96,959.66 62**	**18.5687**	**1.8266**	**97,968.21 74**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	16.4543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	217.2892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	146.0925	74.9293	307.6512	1.1334		47.4808	47.4808		47.4808	47.4808	5,248.6092	90,913.1294	96,161.7386	17.8080	1.8266	97,151.2725
Landscaping	13.2149	5.0909	441.1313	0.0234		2.4564	2.4564		2.4564	2.4564		797.9276	797.9276	0.7607		816.9449
Total	**393.0508**	**80.0202**	**748.7825**	**1.1568**		**49.9372**	**49.9372**		**49.9372**	**49.9372**	**5,248.6092**	**91,711.0570**	**96,959.6662**	**18.5687**	**1.8266**	**97,968.2174**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix E - Noise Study

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Appendix: Ambient Noise Monitoring Data
Prepared by MIG, September 2019

Table: Summary of Site LT-1 Noise Monitoring Data

Site LT-1 (Corner of San Gorgonio Street and Bubbling Wells Road)											
Date	Time	Duration	Leq	Lmin	Lmax	L(1)	L(5)	L(10)	L(25)	L(50)	L(75)
5/9/2019	10:00 AM	1-hour	56.3	41.1	85.2	66.7	57.1	55.0	52.6	50.0	47.7
5/9/2019	11:00 AM	1-hour	58.2	41.4	76.8	68.2	64.7	62.6	58.6	52.0	49.0
5/9/2019	12:00 PM	1-hour	50.6	37.5	69.2	59.1	55.7	53.8	50.8	47.8	45.6
5/9/2019	1:00 PM	1-hour	53.6	40.5	70.5	61.5	58.6	56.9	54.0	51.2	48.6
5/9/2019	2:00 PM	1-hour	57.6	45.3	70.9	65.5	62.8	61.1	58.3	55.2	52.3
5/9/2019	3:00 PM	1-hour	57.3	46.0	70.1	65.1	62.0	60.5	58.1	55.4	52.9
5/9/2019	4:00 PM	1-hour	58.7	46.5	74.7	66.6	63.5	61.9	59.4	56.5	53.8
5/9/2019	5:00 PM	1-hour	61.6	47.0	88.2	73.4	64.9	62.8	59.9	56.6	53.8
5/9/2019	6:00 PM	1-hour	60.3	49.0	75.7	68.1	64.9	63.5	61.1	58.4	55.6
5/9/2019	7:00 PM	1-hour	58.9	45.8	71.0	66.1	64.1	62.6	59.7	56.8	54.0
5/9/2019	8:00 PM	1-hour	61.1	45.8	74.3	69.0	66.3	64.7	62.0	58.9	55.7
5/9/2019	9:00 PM	1-hour	52.3	41.6	67.1	61.1	57.5	55.7	52.6	49.6	47.3
5/9/2019	10:00 PM	1-hour	51.4	41.1	64.0	58.8	56.5	55.1	52.3	49.0	46.5
5/9/2019	11:00 PM	1-hour	53.7	41.8	69.5	60.8	58.5	57.2	54.8	51.8	48.9
5/10/2019	12:00 AM	1-hour	52.1	37.7	66.9	60.7	57.4	55.6	52.5	49.4	46.8
5/10/2019	1:00 AM	1-hour	46.7	34.1	63.3	55.5	52.0	50.1	47.1	44.0	41.3
5/10/2019	2:00 AM	1-hour	44.9	35.2	57.3	52.2	50.0	48.3	45.5	42.8	40.6
5/10/2019	3:00 AM	1-hour	44.2	36.3	60.7	53.4	49.6	47.4	43.8	41.4	39.6
5/10/2019	4:00 AM	1-hour	43.7	35.9	58.4	52.1	48.8	46.9	43.4	41.3	40.0
5/10/2019	5:00 AM	1-hour	42.9	36.9	62.0	51.4	46.9	45.0	42.5	40.8	39.6
5/10/2019	6:00 AM	1-hour	48.7	40.2	72.2	59.9	53.0	49.5	46.4	44.6	43.4
5/10/2019	7:00 AM	1-hour	47.3	40.8	68.2	57.8	50.6	47.9	46.2	44.8	43.8
5/10/2019	8:00 AM	1-hour	48.5	39.2	68.6	58.4	52.8	49.5	47.5	46.0	44.8
5/10/2019	9:00 AM	1-hour	48.0	38.4	75.5	57.3	49.3	47.8	46.0	44.0	41.6
Daytime (7 AM to 7 PM)			*57.0*	*37.5*	*88.2*	*66.6*	*61.5*	*59.7*	*56.9*	*53.7*	*51.0*
Evening (7 PM to 10 PM)			*58.7*	*41.6*	*74.3*	*66.5*	*63.9*	*62.3*	*59.6*	*56.5*	*53.6*
Nightime (10 PM to 7 AM)			*49.2*	*34.1*	*72.2*	*57.6*	*54.2*	*52.5*	*49.7*	*46.8*	*44.4*
24-hour CNEL			*59.3*								

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Desert Hot Springs, CA
Appendix: Ambient Noise Monitoring Data
Prepared by MIG, September 2019

Table: Summary of Site LT-2 Noise Monitoring Data

Site LT-2 (N Indian Canyon Dr, approximately 370 feet north of Scenic Drive)											
Date	Time	Duration	Leq	Lmin	Lmax	L(1)	L(5)	L(10)	L(25)	L(50)	L(75)
5/9/2019	10:00 AM	1-hour	71.8	34.2	86.2	81.3	79.0	77.2	71.8	60.4	48.0
5/9/2019	11:00 AM	1-hour	72.0	34.8	86.2	81.5	79.1	77.4	71.9	61.0	50.0
5/9/2019	12:00 PM	1-hour	72.6	34.1	86.6	81.6	79.3	77.9	73.5	63.7	51.7
5/9/2019	1:00 PM	1-hour	73.2	35.9	89.5	82.3	79.7	78.3	74.0	64.7	53.3
5/9/2019	2:00 PM	1-hour	73.6	37.6	93.0	82.6	79.9	78.4	74.4	66.0	54.9
5/9/2019	3:00 PM	1-hour	74.4	40.9	97.0	82.9	80.0	78.8	75.6	67.9	57.7
5/9/2019	4:00 PM	1-hour	75.2	43.1	98.9	82.9	80.4	79.3	76.7	70.3	59.7
5/9/2019	5:00 PM	1-hour	74.5	45.0	87.2	82.1	80.4	79.2	76.5	69.5	59.6
5/9/2019	6:00 PM	1-hour	73.7	42.5	90.1	82.0	79.9	78.7	75.1	66.8	57.4
5/9/2019	7:00 PM	1-hour	73.3	42.7	100.6	82.3	79.4	77.7	71.7	60.8	55.1
5/9/2019	8:00 PM	1-hour	71.7	41.7	91.4	81.1	78.7	77.0	71.1	62.2	57.7
5/9/2019	9:00 PM	1-hour	71.1	44.6	94.0	80.9	78.0	75.9	68.3	60.2	56.2
5/9/2019	10:00 PM	1-hour	71.9	42.3	98.5	81.6	77.6	75.0	66.4	58.4	54.3
5/9/2019	11:00 PM	1-hour	68.2	43.3	86.8	79.8	76.5	72.4	62.0	57.5	54.2
5/10/2019	12:00 AM	1-hour	66.0	39.4	86.5	78.6	73.2	67.5	61.4	57.5	53.4
5/10/2019	1:00 AM	1-hour	64.2	35.2	84.0	78.6	70.1	63.0	55.5	51.2	47.8
5/10/2019	2:00 AM	1-hour	63.7	35.8	86.9	78.0	68.8	61.1	51.0	45.7	42.0
5/10/2019	3:00 AM	1-hour	65.1	38.0	84.9	79.0	71.3	64.7	57.5	52.7	48.4
5/10/2019	4:00 AM	1-hour	65.7	35.4	83.5	79.3	73.0	66.8	55.5	48.2	44.2
5/10/2019	5:00 AM	1-hour	69.8	33.6	91.8	81.1	77.4	74.2	65.6	54.3	47.5
5/10/2019	6:00 AM	1-hour	72.8	37.9	94.0	82.4	79.7	77.9	72.5	61.2	53.2
5/10/2019	7:00 AM	1-hour	74.5	44.2	88.6	82.5	80.5	79.2	76.2	69.2	59.6
5/10/2019	8:00 AM	1-hour	73.6	42.6	86.6	82.0	80.0	78.6	75.0	66.8	56.2
5/10/2019	9:00 AM	1-hour	73.8	41.1	88.7	82.4	80.1	78.8	75.1	65.8	55.3
Daytime (7 AM to 10 PM)			73.7	34.1	98.9	82.2	79.9	78.5	74.9	66.9	56.6
Evening (7 PM to 10 PM)			72.1	41.7	100.6	81.5	78.7	76.9	70.6	61.2	56.4
Nightime (10 PM to 7 AM)			68.7	33.6	98.5	80.1	75.5	72.3	65.3	56.3	51.2
24-hour CNEL			76.6								

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Appendix: Ambient Noise Monitoring Data
Prepared by MIG, September 2019

Table: Summary of Site ST-1 Noise Monitoring Data

Site ST-1 (Northeast corner of Cactus Drive and 1st Street)												
Date	Time Start	Duration	Leq	Lmin	Lmax	L(1.67)	L(8.33)	L(25)	L(50)	L(75)	L(90)
5/9/2019	10:40 AM	10 mins	60.9	46.5	72.5	67.6	65.5	61.0	54.7	49.6	0.0
5/9/2019	10:50 AM	10 mins	61.4	46.1	72.6	68.7	66.0	60.9	55.2	49.9	0.0
5/9/2019	11:00 AM	10 mins	62.1	47.5	74.9	68.5	66.6	62.2	57.0	49.8	0.0
		Average:	61.5	46.1	74.9	68.3	66.1	61.4	55.7	49.8	0.0

Table: Summary of Site ST-2 Noise Monitoring Data

Site ST-2 (Northeast corner of Sonora Drive and Via Del Sol)											
Date	Time Start	Duration	Leq	Lmin	Lmax	L(1.67)	L(8.33)	L(25)	L(50)	L(75)	L(90)
5/9/2019	12:00 PM	10 mins	50.2	40.2	67.5	54.6	51.7	48.2	45.8	42.3	0.0
5/9/2019	12:10 PM	10 mins	49.0	38.2	63.7	53.1	52.0	50.4	47.5	42.2	0.0
5/9/2019	12:20 PM	10 mins	48.0	39.2	59.8	51.9	50.8	48.9	46.9	42.6	0.0
		Average:	49.2	38.2	67.5	53.3	51.5	49.3	46.8	42.4	0.0

Table: Summary of Site ST-3 Noise Monitoring Data

Site ST-3 (Corner of Painted Hills Road and Salton View Road)											
Date	Time Start	Duration	Leq	Lmin	Lmax	L(1.67)	L(8.33)	L(25)	L(50)	L(75)	L(90)
5/9/2019	1:00 PM	10 mins	55.0	46.9	72.5	60.0	58.3	55.3	51.9	48.5	0.0
5/9/2019	1:20 PM	10 mins	57.4	47.5	76.0	61.7	59.0	55.2	51.9	49.4	0.0
5/9/2019	1:50 PM	10 mins	59.7	49.4	76.5	64.4	61.9	57.8	54.2	50.6	0.0
		Average:	57.8	46.9	76.5	62.4	60.0	56.3	52.8	49.6	0.0

Table: Summary of Site ST-4 Noise Monitoring Data

Site ST-4 (Intersection of 20th Avenue and Power Line Road)											
Date	Time Start	Duration	Leq	Lmin	Lmax	L(1.67)	L(8.33)	L(25)	L(50)	L(75)	L(90)
5/9/2019	2:30 PM	10 mins	63.3	50.9	77.7	67.6	65.9	63.8	61.8	57.9	0.0
5/9/2019	2:40 PM	10 mins	63.3	54.5	72.3	67.4	65.9	64.0	62.2	58.0	0.0
		Average:	63.3	50.9	77.7	67.5	65.9	63.9	62.0	58.0	0.0

Table: Summary of Site ST-5 Noise Monitoring Data

Site ST-5 (Along the northern portion of Club Circle Drive)											
Date	Time Start	Duration	Leq	Lmin	Lmax	L(1.67)	L(8.33)	L(25)	L(50)	L(75)	L(90)
5/9/2019	3:50 PM	10 mins	49.0	44.5	58.2	51.1	50.4	49.5	48.7	47.1	0.0
5/9/2019	4:00 PM	10 mins	50.0	45.1	60.1	52.9	52.0	50.5	49.0	47.2	0.0
5/9/2019	4:10 PM	10 mins	49.3	45.2	62.1	51.6	50.5	49.4	48.3	46.7	0.0
		Average:	49.5	44.5	62.1	51.9	51.0	49.8	48.7	47.0	0.0

Desert Hot Springs General Plan Update

Desert Hot Springs, CA

Appendix: Existing 2019 Traffic Noise Contour Distances

Prepared by MIG, October 2019

TABLE A: Estimated Existing 2019 Traffic Noise Contour Distances

ID	Road	Road Segment	2019 CNEL 100 Feet from Road Center	Estimated Distance to Noise Contour				
				75 CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	51.5	0	1	4	14	44
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	49.2	0	1	3	8	26
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	50.0	0	1	3	10	31
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	50.0	0	1	3	10	31
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	51.0	0	1	4	13	40
1F	Worsley Rd	Dillon Rd to 20th Ave	53.9	1	2	8	24	77
2A	Oasis Dr	13th Ave to 14th Ave	-	-	-	-	-	-
3A	Diablo Rd	14th Ave to Dillon Rd	51.8	0	2	5	15	48
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	46.8	0	0	2	5	15
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	68.2	21	66	208	658	2,080
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	67.5	18	56	178	564	1,784
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	67.5	18	56	178	564	1,784
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	68.7	23	73	232	733	2,319
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	69.9	31	98	311	983	3,108
5F	Indian Canyon Dr	13th Ave to 14th Ave	70.0	32	100	317	1,001	3,166
5G	Indian Canyon Dr	14th Ave to Dillon Rd	69.8	30	96	304	962	3,041
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	71.9	49	154	486	1,537	4,859
6A	Little Morongo Rd	North of Mission Lakes Blvd	56.3	1	4	14	43	135
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	61.2	4	13	42	132	417
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	63.7	7	23	74	235	742
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	64.4	9	27	87	274	866
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	69.0	25	79	251	792	2,505
6F	Little Morongo Rd	Dillon Rd to 20th Ave	-	-	-	-	-	-
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	56.2	1	4	13	41	131
7B	West Dr	Pierson Blvd to Hacienda Ave	57.5	2	6	18	57	180
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	59.4	3	9	28	87	276
8A	Palm Dr	North of Mission Lakes Blvd	43.5	0	0	1	2	7
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	62.9	6	20	62	197	623
8C	Palm Dr	Pierson Blvd to Hacienda Ave	65.5	11	36	113	357	1,130
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	66.9	16	49	156	492	1,555
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	71.6	46	145	457	1,445	4,571
8F	Palm Dr	Cam. Campenero to Cam. Aventura	72.8	60	190	600	1,898	6,002
8G	Palm Dr	Cam. Aventura to Dillon Rd	74.9	97	308	972	3,075	9,725
8H	Palm Dr	Dillon Rd to I-10 Freeway	75.9	122	385	1,219	3,855	12,190
9A	Bubbling Wells Rd	North of Dillon Rd	58.8	2	8	24	75	237
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	59.2	3	8	26	84	264

10A	Mountain View Rd	Hacienda Ave to Dillon Rd	61.8	5	15	48	153	483
10B	Mountain View Rd	Dillon Rd to 20th Ave	70.4	35	109	345	1,091	3,451
10C	Mountain View Rd	20th Ave to Varner Rd	70.8	38	120	379	1,200	3,794
11A	Long Canyon Rd	North of Dillon Rd	62.5	6	18	56	178	563
12A	10th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-
12B	10th Ave	Worsley Rd to Karen Rd	-	-	-	-	-	-
12C	10th Ave	Karen Rd to Indian Canyon Dr	-	-	-	-	-	-
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	62.4	5	17	55	174	549
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	61.6	5	14	46	145	458
12F	Mission Lakes Blvd	West Dr to Palm Dr	59.5	3	9	28	88	279
13A	Pierson Blvd	SR-62 to Worsley Rd	63.9	8	25	78	245	776
13B	Pierson Blvd	Worsley Rd to Diablo Rd	64.6	9	29	91	287	907
13C	Pierson Blvd	Diablo Rd to Karen Ave	64.6	9	29	91	287	907
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	64.1	8	26	81	257	812
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	66.4	14	44	139	439	1,389
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	67.8	19	60	191	605	1,912
13G	Pierson Blvd	Atlantic Ave to West Dr	66.9	15	49	154	488	1,542
13H	Pierson Blvd	West Dr to Palm Dr	61.0	4	13	40	127	402
13I	Pierson Blvd	Palm Dr to Miracle Hill	56.6	1	5	14	45	144
14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	-	-	-	-	-	-
14E	Hacienda Ave	Cholla Dr to Palm Dr	61.8	5	15	48	150	476
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	60.9	4	12	39	124	393
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	62.3	5	17	54	170	539
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	62.3	5	17	54	170	539
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	63.5	7	22	71	223	706
14J	Hacienda Ave	East of Mountain View Rd	60.1	3	10	32	101	321
15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-
15F	Two Bunch Palms Trail	Little Morongo Rd to Cabot Dr	60.9	4	12	39	123	388
15G	Two Bunch Palms Trail	Cabot Dr to Cholla Dr	60.9	4	12	39	123	388
15H	Two Bunch Palms Trail	Cholla Dr to West Dr	60.9	4	12	39	123	388
15I	Two Bunch Palms Trail	West Dr to Palm Dr	59.5	3	9	28	90	284
15J	Two Bunch Palms Trail	East of Palm Dr	57.5	2	6	18	57	180
16A	Dillon Rd	SR-62 to Worsley Rd	64.8	10	30	95	301	953
16B	Dillon Rd	Worsley Rd to Diablo Rd	64.6	9	29	91	288	912
16C	Dillon Rd	Diablo Rd to Karen Ave	64.9	10	31	97	308	973
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	64.4	9	28	87	275	870
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	70.2	33	104	329	1,042	3,294
16F	Dillon Rd	Little Morongo Rd to Palm Dr	70.3	34	108	340	1,076	3,401
16G	Dillon Rd	Palm Dr to Mountain View Rd	70.5	36	112	355	1,123	3,550
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	70.6	37	116	366	1,158	3,661
16I	Dillon Rd	East of Long Canyon Rd	71.3	42	134	423	1,337	4,227

17A	20th Ave	Worsley Rd to Diablo Rd	59.4	3	9	27	87	274
17B	20th Ave	Diablo Rd to Karen Ave	59.4	3	9	27	87	274
17C	20th Ave	Karen Ave to Indian Canyon Dr	55.2	1	3	11	33	105
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	61.2	4	13	42	133	420
17E	20th Ave	Little Morongo Rd to Palm Dr	-	-	-	-	-	-
17F	20th Ave	Palm Dr to Mountain View Rd	61.2	4	13	42	133	420
18A	Varner Rd	Mihaylo Rd to Palm Dr	45.5	0	0	1	4	11
18B	Varner Rd	Palm Dr to Mountain View Rd	63.3	7	21	67	212	669
18C	Varner Rd	East of Mountain View Rd	71.1	41	129	408	1,290	4,079
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	50.5	0	1	4	11	35
20	SR 62	I10 to Indian Canyon Drive	76.6	145	457	1,446	4,573	14,461
21	I-10	SR62 to Date Palm Drive	85.1	1,029	3,254	10,289	32,537	102,890

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Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Existing 2019 TNM Information - Roadway Segment Data
Prepared by MIG, October 2019

TABLE B: Existing 2019 TNM Roadway Segment Data

ID	Road	Road Segment	Road Segment Information							Notes
			Classification	Length (Miles)	Length (Feet)	Average Lanes	Average Width (Feet)	Posted Speed (MPH)	Average Daily Traffic (ADT)	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	Minor Collector	2.00	10,560	2	25	55	236	A, B, C, E
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.10	5,808	2	25	55	188	A, B, C, E
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	Minor Collector	0.58	3,062	2	25	55	223	A, B, C, E
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	Minor Collector	0.56	2,957	2	25	55	223	A, B, C, E
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	Minor Collector	1.50	7,920	2	25	55	291	A, B, C, E
1F	Worsley Rd	Dillon Rd to 20th Ave	Minor Collector	0.80	4,224	2	25	55	563	A, B, C, E
2A	Oasis Dr	13th Ave to 14th Ave	NA	-	-	-	-	-	-	F
3A	Diablo Rd	14th Ave to Dillon Rd	Local Collector	1.50	7,920	2	25	55	239	A, B, C, E
4A	Karen Ave	Indian Canyon Dr to 10th Ave	Secondary	NA	-	-	-	-	-	F
4B	Karen Ave	10th Ave to Pierson Blvd	Secondary	1.00	5,280	-	30	55	41	A, B, C, E
4C	Karen Ave	Pierson Blvd to 13th Ave	NA	-	-	-	-	-	-	F
4D	Karen Ave	13th Ave to 14th Ave	NA	-	-	-	-	-	-	F
4E	Karen Ave	14th Ave to Dillon Rd	NA	-	-	-	-	-	-	F
5A	Indian Canyon Dr	SR-62 to Worsley Rd	Minor Arterial	0.10	528	2	45	55	6,056	A, B, C, E
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	Minor Arterial	0.85	4,488	2	45	55	5,190	A, B, C, E
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	Minor Arterial	1.95	10,296	2	45	55	5,190	A, B, C, E
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	Minor Arterial	1.00	5,280	2	45	55	6,765	A, B, C, E
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	Major Arterial	0.50	2,640	2	45	55	9,063	A, B, C, E
5F	Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	0.50	2,640	2	45	55	9,236	A, B, C, E
5G	Indian Canyon Dr	14th Ave to Dillon Rd	Major Arterial	1.50	7,920	2	45	55	8,862	A, B, C, E
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	Urban Arterial	1.30	6,864	2	45	55	14,183	A, B, C, E
6A	Little Morongo Rd	North of Mission Lakes Blvd	Minor Collector	0.84	4,435	2	30	40	1,778	A, B, C, E
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	Major Collector	1.00	5,280	2	25	45	4,010	A, B, C, E
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	Major Collector	0.50	2,640	2	25	55	4,088	A, B, C, E
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	Major Collector	0.50	2,640	2	25	55	4,758	A, B, C, E
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	Major Arterial	1.50	7,920	2	25	55	7,382	A, B, C, E
6F	Little Morongo Rd	Dillon Rd to 20th Ave	NA	-	-	-	-	-	-	F
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.00	5,280	2	50	30	3,750	A, B, D, E
7B	West Dr	Pierson Blvd to Hacienda Ave	Minor Collector	0.50	2,640	2	35	35	3,300	A, B, D, E
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	Minor Collector	0.50	2,640	2	35	35	5,053	A, B, D, E

8A	Palm Dr	North of Mission Lakes Blvd	Secondary	0.40	2,112	2	40	25	272	A, B, C, E	
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.00	5,280	4	65	35	11,500	A, B, D, E	
8C	Palm Dr	Pierson Blvd to Hacienda Ave	Major Collector	0.50	2,640	4	65	35	20,850	A, B, D, E	
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	Major Collector	0.50	2,640	4	65	35	28,752	A, B, C, E	
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	Major Arterial	0.50	2,640	4	75	40	28,750	A, B, D, E	
8F	Palm Dr	Cam. Campenero to Cam. Aventura	Major Arterial	0.50	2,640	4	75	45	29,000	A, B, D, E	
8G	Palm Dr	Cam. Aventura to Dillon Rd	Major Arterial	0.50	2,640	4	75	55	29,000	A, B, D, E	
8H	Palm Dr	Dillon Rd to I-10 Freeway	Urban Arterial	3.00	15,840	4	80	60	29,000	A, B, D, E	
9A	Bubbling Wells Rd	North of Dillon Rd	Minor Collector	1.00	5,280	2	55	40	3,149	A, B, C, E	
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	Minor Collector	1.50	7,920	2	25	55	1,445	A, B, C, E	
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	Minor Arterial	2.00	10,560	2	25	35	3,750	A, B, D, E	
10B	Mountain View Rd	Dillon Rd to 20th Ave	Minor Arterial	1.50	7,920	2	25	55	10,133	A, B, C, E	
10C	Mountain View Rd	20th Ave to Varner Rd	Minor Arterial	1.20	6,336	2	25	55	11,137	A, B, C, E	
11A	Long Canyon Rd	North of Dillon Rd	Minor Collector	1.50	7,920	2	30	55	3,067	A, B, C, E	
12A	10th Ave	SR-62 to Worsley Rd	NA	-	-	-	-	-	-	F	
12B	10th Ave	Worsley Rd to Karen Rd	NA	-	-	-	-	-	-	F	
12C	10th Ave	Karen Rd to Indian Canyon Dr	NA	-	-	-	-	-	-	F	
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	Minor Collector	1.00	5,280	2	35	50	3,985	A, B, C, E	
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	Minor Collector	0.75	3,960	2	45	45	4,400	A, B, D, E	
12F	Mission Lakes Blvd	West Dr to Palm Dr	Minor Collector	1.00	5,280	2	72	40	3,641	A, B, C, E	
13A	Pierson Blvd	SR-62 to Worsley Rd	Major Arterial	0.25	1,320	2	25	55	2,286	A, B, C, E	
13B	Pierson Blvd	Worsley Rd to Diablo Rd	Major Arterial	0.35	1,848	2	45	55	2,700	A, B, D, E	
13C	Pierson Blvd	Diablo Rd to Karen Ave	Major Arterial	1.00	5,280	2	45	55	2,700	A, B, D, E	
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	Major Arterial	1.00	5,280	2	30	55	2,384	A, B, C, E	
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	2	30	50	5,196	A, B, C, E	
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	Minor Arterial	0.50	2,640	4	75	50	7,200	A, B, D, E	
13G	Pierson Blvd	Atlantic Ave to West Dr	Minor Arterial	0.50	2,640	4	75	45	7,450	A, B, D, E	
13H	Pierson Blvd	West Dr to Palm Dr	Secondary	0.50	2,640	4	65	35	7,400	A, B, D, E	
13I	Pierson Blvd	Palm Dr to Miracle Hill	Secondary	0.90	4,752	4	65	35	2,600	A, B, D, E	
14A	13th Ave	Diablo Rd to Karen Ave	NA	-	-	-	-	-	-	F	
14B	13th Ave	Karen Ave to Indian Canyon Dr	NA	-	-	-	-	-	-	F	
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	NA	-	-	-	-	-	-	F	
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	NA	-	-	-	-	-	-	F	
14E	Hacienda Ave	Cholla Dr to Palm Dr	Minor Collector	0.75	3,960	2	45	45	4,600	A, B, D, E	
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	Minor Collector	0.10	528	2	65	35	7,200	A, B, D, E	
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	Minor Collector	0.40	2,112	2	50	40	7,200	A, B, D, E	
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	Minor Collector	0.50	2,640	2	50	40	7,200	A, B, D, E	
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	Minor Collector	0.50	2,640	2	50	40	9,400	A, B, D, E	
14J	Hacienda Ave	East of Mountain View Rd	Minor Collector	1.10	5,808	2	50	40	4,250	A, B, D, E	
15A	14th Ave	SR-62 to Worsley Rd	NA	-	-	-	-	-	-	F	
15B	14th Ave	Worsley Rd to Diablo Rd	NA	-	-	-	-	-	-	F	
15C	14th Ave	Diablo Rd to Karen Ave	NA	-	-	-	-	-	-	F	
15D	14th Ave	Karen Ave to Indian Canyon Dr	NA	-	-	-	-	-	-	F	
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	NA	-	-	-	-	-	-	F	
15F	Two Bunch Palms Trail	Little Morongo Rd to Cabot Dr	Secondary	0.40	2,112	2	65	45	3,750	A, B, D, E	
15G	Two Bunch Palms Trail	Cabot Dr to Cholla Dr	Secondary	0.40	2,112	2	35	45	3,750	A, B, D, E	
15H	Two Bunch Palms Trail	Cholla Dr to West Dr	Secondary	0.25	1,320	2	35	45	3,750	A, B, D, E	
15I	Two Bunch Palms Trail	West Dr to Palm Dr	Secondary	0.50	2,640	4	80	40	3,750	A, B, D, E	
15J	Two Bunch Palms Trail	East of Palm Dr	Secondary	1.10	5,808	2	50	35	3,300	A, B, D, E	

16A	Dillon Rd	SR-62 to Worsley Rd	Major Arterial	0.17	898	2	40	55	2,832	A, B, C, E	
16B	Dillon Rd	Worsley Rd to Diablo Rd	Major Arterial	1.00	5,280	2	25	55	2,650	A, B, C, E	
16C	Dillon Rd	Diablo Rd to Karen Ave	Major Arterial	1.00	5,280	2	40	55	2,842	A, B, C, E	
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	Major Arterial	1.00	5,280	2	35	55	2,557	A, B, C, E	
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	2	30	55	9,779	A, B, C, E	
16F	Dillon Rd	Little Morongo Rd to Palm Dr	Minor Arterial	1.50	7,920	2	40	55	10,081	A, B, C, E	
16G	Dillon Rd	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	2	40	55	10,539	A, B, C, E	
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	Major Arterial	1.00	5,280	2	40	55	10,866	A, B, C, E	
16I	Dillon Rd	East of Long Canyon Rd	Major Arterial	2.00	10,560	2	40	55	12,544	A, B, C, E	
17A	20th Ave	Worsley Rd to Diablo Rd	Minor Collector	1.10	5,808	2	25	55	1,489	A, B, C, E	
17B	20th Ave	Diablo Rd to Karen Ave	Minor Collector	1.00	5,280	2	25	55	1,489	A, B, C, E	
17C	20th Ave	Karen Ave to Indian Canyon Dr	Minor Collector	1.00	5,280	2	25	55	530	A, B, C, E	
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	2	23	55	1,214	A, B, C, E	
17E	20th Ave	Little Morongo Rd to Palm Dr	NA	-	-	-	-	-	-	F	
17F	20th Ave	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	2	25	55	1,214	A, B, C, E	
18A	Varner Rd	Mihaylo Rd to Palm Dr	Minor Arterial	1.00	5,280	2	30	55	8	A, B, C, E	
18B	Varner Rd	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	2	25	55	1,964	A, B, C, E	
18C	Varner Rd	East of Mountain View Rd	Minor Arterial	0.50	2,640	2	45	55	12,050	A, B, C, E	
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	Minor Collector	0.50	2,640	2	35	30	1,000	A, B, D, E	
20A	SR 62	I10 to Indian Canyon Drive	Freeway	6.40	33,792	4	150	65	18,667	B,G	
21A	I-10	SR62 to Date Palm Drive	Freeway	9.80	51,744	4	140	65	90,000	B,G	

Table Notes:

A Road segment classification obtained from Table 3 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019).

B Posted speed obtained from the City's Engineering and Traffic Survey For Speed Limits (City of Desert Hot Springs 2018), if available, or Google Earth imagery. If information was not available, the speed limit was assumed to be 65/55/35/25 miles per hour (mph) for freeway/rural/commercial/residential roads.

C Average daily traffic (ADT) values obtained from Table 3 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019).

D ADT values obtained from the City's Engineering and Traffic Survey For Speed Limits (City of Desert Hot Springs 2018)

E TNM Modeling based on the lowest reported segment ADT to provide a conservative estimate (i.e., likely to underestimate) existing traffic noise levels.

F "NA" = Not applicable. This road segment does not exist under 2019 conditions.

G ADT values obtained from 2017 Caltrans traffic volume data for I10 and SR62 (Caltrans 2017a and 2017b).

Table References:

Caltrans 2017a. “2017 Traffic Volumes Route 7 – 10”. Caltrans. 2019. Accessed September 23, 2019. <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017>

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Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Existing 2019 TNM Information - Vehicles Per Hour
Prepared by MIG, September 2019

TABLE C: Existing 2019 TNM Vehicles Per Hour Data

ID	Road	Road Segment	ADT	Vehicles Per Hour (Daytime)			Vehicle Per Hour (Evening)			Vehicles Per Hour (Night)			Notes
				Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	236	14.5	0.2	0.1	10.7	0.1	0.1	2.7	0.3	0.1	A, B
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	188	11.6	0.2	0.1	8.6	0.1	0.1	2.2	0.2	0.1	A, B
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	223	13.8	0.2	0.1	10.2	0.1	0.1	2.6	0.3	0.1	A, B
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	223	13.8	0.2	0.1	10.2	0.1	0.1	2.6	0.3	0.1	A, B
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	291	17.9	0.3	0.1	13.2	0.1	0.1	3.3	0.3	0.2	A, B
1F	Worsley Rd	Dillon Rd to 20th Ave	563	34.6	0.5	0.2	25.6	0.1	0.1	6.4	0.6	0.3	A, B
2A	Oasis Dr	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
3A	Diablo Rd	14th Ave to Dillon Rd	239	14.7	0.2	0.1	10.9	0.1	0.1	2.8	0.3	0.1	A, B
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	41	2.6	0.1	0.1	1.9	0.1	0.1	0.5	0.1	0.1	A, B
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	6,056	350.8	7.3	12.2	260.5	1.3	2.1	64.6	10.1	16.9	A, B
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	5,190	300.7	6.3	10.4	223.2	1.1	1.8	55.4	8.7	14.5	A, B
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	5,190	300.7	6.3	10.4	223.2	1.1	1.8	55.4	8.7	14.5	A, B
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	6,765	391.9	8.2	13.6	291.0	1.4	2.3	72.2	11.3	18.8	A, B
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	9,063	524.9	10.9	18.2	389.8	1.9	3.1	96.7	15.2	25.2	A, B
5F	Indian Canyon Dr	13th Ave to 14th Ave	9,236	535.0	11.1	18.5	397.2	1.9	3.1	98.6	15.4	25.7	A, B
5G	Indian Canyon Dr	14th Ave to Dillon Rd	8,862	513.3	10.7	17.8	381.1	1.8	3.0	94.6	14.8	24.7	A, B
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	14,183	821.5	17.1	28.4	609.9	2.9	4.8	151.3	23.7	39.4	A, B
6A	Little Morongo Rd	North of Mission Lakes Blvd	1,778	109.1	1.4	0.6	80.7	0.3	0.3	20.2	1.8	0.7	A, B
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	4,010	246.0	3.1	1.2	181.8	0.6	0.6	45.5	4.1	1.6	A, B
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	4,088	250.8	3.1	1.2	185.4	0.6	0.6	46.4	4.1	1.6	A, B
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	4,758	291.9	3.6	1.4	215.7	0.7	0.7	54.0	4.8	1.9	A, B
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	7,382	427.6	8.9	14.8	317.5	1.5	2.5	78.8	12.4	20.6	A, B
6F	Little Morongo Rd	Dillon Rd to 20th Ave	-	-	-	-	-	-	-	-	-	-	-

7A	West Dr	Mission Lakes Blvd to Pierson Blvd	3,750	230.0	2.9	1.1	170.0	0.5	0.5	42.5	3.8	1.5	A, B
7B	West Dr	Pierson Blvd to Hacienda Ave	3,300	202.4	2.5	1.0	149.6	0.5	0.5	37.4	3.3	1.3	A, B
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,053	310.0	3.8	1.5	229.1	0.7	0.7	57.3	5.1	2.0	A, B
8A	Palm Dr	North of Mission Lakes Blvd	272	16.7	0.3	0.1	12.4	0.1	0.1	3.1	0.3	0.2	A, B
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	11,500	705.4	8.7	3.4	521.4	1.6	1.6	130.4	11.5	4.5	A, B
8C	Palm Dr	Pierson Blvd to Hacienda Ave	20,850	1,278.8	15.7	6.1	945.2	2.8	2.8	236.3	20.9	8.2	A, B
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	28,752	1,763.5	21.6	8.4	1,303.5	3.9	3.9	325.9	28.8	11.2	A, B
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	28,750	1,665.2	34.5	57.5	1,236.3	5.8	9.6	306.7	48.0	79.9	A, B
8F	Palm Dr	Cam. Campenero to Cam. Aventura	29,000	1,679.6	34.8	58.0	1,247.0	5.8	9.7	309.4	48.4	80.6	A, B
8G	Palm Dr	Cam. Aventura to Dillon Rd	29,000	1,679.6	34.8	58.0	1,247.0	5.8	9.7	309.4	48.4	80.6	A, B
8H	Palm Dr	Dillon Rd to I-10 Freeway	29,000	1,679.6	34.8	58.0	1,247.0	5.8	9.7	309.4	48.4	80.6	A, B
9A	Bubbling Wells Rd	North of Dillon Rd	3,149	193.2	2.4	1.0	142.8	0.5	0.5	35.7	3.2	1.3	A, B
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	1,445	88.7	1.1	0.5	65.6	0.2	0.2	16.4	1.5	0.6	A, B
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	3,750	217.2	4.5	7.5	161.3	0.8	1.3	40.0	6.3	10.5	A, B
10B	Mountain View Rd	Dillon Rd to 20th Ave	10,133	586.9	12.2	20.3	435.8	2.1	3.4	108.1	16.9	28.2	A, B
10C	Mountain View Rd	20th Ave to Varner Rd	11,137	645.1	13.4	22.3	479.0	2.3	3.8	118.8	18.6	31.0	A, B
11A	Long Canyon Rd	North of Dillon Rd	3,067	188.2	2.4	0.9	139.1	0.5	0.5	34.8	3.1	1.2	A, B
12A	10th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
12B	10th Ave	Worsley Rd to Karen Rd	-	-	-	-	-	-	-	-	-	-	-
12C	10th Ave	Karen Rd to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	3,985	244.4	3.0	1.2	180.7	0.6	0.6	45.2	4.0	1.6	A, B
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	4,400	269.9	3.3	1.3	199.5	0.6	0.6	49.9	4.4	1.8	A, B
12F	Mission Lakes Blvd	West Dr to Palm Dr	3,641	223.4	2.8	1.1	165.1	0.5	0.5	41.3	3.7	1.5	A, B
13A	Pierson Blvd	SR-62 to Worsley Rd	2,286	132.4	2.8	4.6	98.3	0.5	0.8	24.4	3.9	6.4	A, B
13B	Pierson Blvd	Worsley Rd to Diablo Rd	2,700	156.4	3.3	5.4	116.1	0.6	0.9	28.8	4.5	7.5	A, B
13C	Pierson Blvd	Diablo Rd to Karen Ave	2,700	156.4	3.3	5.4	116.1	0.6	0.9	28.8	4.5	7.5	A, B
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	2,384	138.1	2.9	4.8	102.6	0.5	0.8	25.5	4.0	6.7	A, B
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	5,196	301.0	6.3	10.4	223.5	1.1	1.8	55.5	8.7	14.5	A, B
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	7,200	417.0	8.7	14.4	309.6	1.5	2.4	76.8	12.0	20.0	A, B
13G	Pierson Blvd	Atlantic Ave to West Dr	7,450	431.5	9.0	14.9	320.4	1.5	2.5	79.5	12.5	20.7	A, B
13H	Pierson Blvd	West Dr to Palm Dr	7,400	453.9	5.6	2.2	335.5	1.0	1.0	83.9	7.4	2.9	A, B
13I	Pierson Blvd	Palm Dr to Miracle Hill	2,600	159.5	2.0	0.8	117.9	0.4	0.4	29.5	2.6	1.1	A, B
14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-	-	-	-	-	-
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	-	-	-	-	-	-	-	-	-	-	-
14E	Hacienda Ave	Cholla Dr to Palm Dr	4,600	282.2	3.5	1.4	208.6	0.7	0.7	52.2	4.6	1.8	A, B
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	7,200	441.6	5.4	2.1	326.4	1.0	1.0	81.6	7.2	2.8	A, B
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	7,200	441.6	5.4	2.1	326.4	1.0	1.0	81.6	7.2	2.8	A, B
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	7,200	441.6	5.4	2.1	326.4	1.0	1.0	81.6	7.2	2.8	A, B
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	9,400	576.6	7.1	2.8	426.2	1.3	1.3	106.6	9.4	3.7	A, B
14J	Hacienda Ave	East of Mountain View Rd	4,250	260.7	3.2	1.3	192.7	0.6	0.6	48.2	4.3	1.7	A, B

15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-	-	-	-	-	-
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	3,750	230.0	2.9	1.1	170.0	0.5	0.5	42.5	3.8	1.5	A, B
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	3,750	230.0	2.9	1.1	170.0	0.5	0.5	42.5	3.8	1.5	A, B
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	3,750	230.0	2.9	1.1	170.0	0.5	0.5	42.5	3.8	1.5	A, B
15I	Two Bunch Palms Tr	West Dr to Palm Dr	3,750	230.0	2.9	1.1	170.0	0.5	0.5	42.5	3.8	1.5	A, B
15J	Two Bunch Palms Tr	East of Palm Dr	3,300	202.4	2.5	1.0	149.6	0.5	0.5	37.4	3.3	1.3	A, B
16A	Dillon Rd	SR-62 to Worsley Rd	2,832	164.1	3.4	5.7	121.8	0.6	1.0	30.3	4.8	7.9	A, B
16B	Dillon Rd	Worsley Rd to Diablo Rd	2,650	153.5	3.2	5.3	114.0	0.6	0.9	28.3	4.5	7.4	A, B
16C	Dillon Rd	Diablo Rd to Karen Ave	2,842	164.6	3.5	5.7	122.3	0.6	1.0	30.4	4.8	7.9	A, B
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	2,557	148.2	3.1	5.2	110.0	0.6	0.9	27.3	4.3	7.2	A, B
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	9,779	566.4	11.8	19.6	420.5	2.0	3.3	104.4	16.3	27.2	A, B
16F	Dillon Rd	Little Morongo Rd to Palm Dr	10,081	583.9	12.1	20.2	433.5	2.1	3.4	107.6	16.9	28.1	A, B
16G	Dillon Rd	Palm Dr to Mountain View Rd	10,539	610.4	12.7	21.1	453.2	2.2	3.6	112.5	17.6	29.3	A, B
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	10,866	629.4	13.1	21.8	467.3	2.2	3.7	116.0	18.2	30.2	A, B
16I	Dillon Rd	East of Long Canyon Rd	12,544	726.6	15.1	25.1	539.4	2.6	4.2	133.9	21.0	34.9	A, B
17A	20th Ave	Worsley Rd to Diablo Rd	1,489	91.4	1.2	0.5	67.6	0.2	0.2	16.9	1.5	0.6	A, B
17B	20th Ave	Diablo Rd to Karen Ave	1,489	91.4	1.2	0.5	67.6	0.2	0.2	16.9	1.5	0.6	A, B
17C	20th Ave	Karen Ave to Indian Canyon Dr	530	32.6	0.4	0.2	24.1	0.1	0.1	6.1	0.6	0.3	A, B
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	1,214	70.4	1.5	2.5	52.2	0.3	0.5	13.0	2.1	3.4	A, B
17E	20th Ave	Little Morongo Rd to Palm Dr	-	-	-	-	-	-	-	-	-	-	-
17F	20th Ave	Palm Dr to Mountain View Rd	1,214	70.4	1.5	2.5	52.2	0.3	0.5	13.0	2.1	3.4	A, B
18A	Varner Rd	Mihaylo Rd to Palm Dr	8	0.5	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1	A, B
18B	Varner Rd	Palm Dr to Mountain View Rd	1,964	113.8	2.4	4.0	84.5	0.4	0.7	21.0	3.3	5.5	A, B
18C	Varner Rd	East of Mountain View Rd	12,050	698.0	14.5	24.2	518.2	2.5	4.1	128.6	20.1	33.5	A, B
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	1,000	61.4	0.8	0.3	45.4	0.2	0.2	11.4	1.0	0.4	A, B
20	SR 62	I10 to Indian Canyon Drive	18,667	737.5	56.4	61.8	603.5	46.1	50.6	603.5	46.1	50.6	A, B
21	I-10	SR62 to Date Palm Drive	90,000	3,125.5	256.1	781.6	2,505.3	205.3	626.5	2,505.3	205.3	626.5	A, B
Table Notes:													
A	ADT from Appendix Table B												
B	Vehicles per hour calculated by multiplying the roadway segment ADT by Riverside County daytime, evening, and nighttime traffix mix percentages for the given roadway classification (see Appendix Table N).												

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Existing 2019 Traffic Noise CNEL Calculations
Prepared by MIG, October 2019

TABLE D: Existing 2019 Traffic Noise CNEL Calculations

ID	Road	Road Segment	ADT	Daytime		Evening			Nighttime			24-Hour CNEL	Notes
				Equivalent Hourly Traffic	Leq(h)	Equivalent Hourly Traffic	Leq(h)	CNEL Value	Equivalent Hourly Traffic	Leq(h)	CNEL Value		
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	236	16	48.6	12	47.3	52.3	5	43.4	53.4	51.5	A,B,C,D,E,F
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	188	12	47.2	9	45.9	50.9	3	40.4	50.4	49.2	A,B,C,D,F
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	223	14	47.9	10	46.6	51.6	3	41.2	51.2	50.0	A,B,C,D,F
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	223	14	47.9	10	46.6	51.6	3	41.2	51.2	50.0	A,B,C,D,F
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	291	18	49.1	13	47.7	52.7	4	42.2	52.2	51.0	A,B,C,D,F
1F	Worsley Rd	Dillon Rd to 20th Ave	563	35	51.9	26	50.6	55.6	7	45.1	55.1	53.9	A,B,C,D,E,F
2A	Oasis Dr	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
3A	Diablo Rd	14th Ave to Dillon Rd	239	17	48.9	12	47.6	52.6	5	43.8	53.8	51.8	A,B,C,D,E,F
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	41	4	42.6	3	41.8	46.8	2	39.5	49.5	46.8	A,B,C,D,E,F
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	6,056	508	63.7	288	61.2	66.2	282	61.1	71.1	68.2	A,B,C,D,E,F
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	5,190	435	63.0	247	60.6	65.6	242	60.5	70.5	67.5	A,B,C,D,F
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	5,190	435	63.0	247	60.6	65.6	242	60.5	70.5	67.5	A,B,C,D,F
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	6,765	567	64.2	321	61.7	66.7	314	61.6	71.6	68.7	A,B,C,D,F
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	9,063	759	65.4	430	63.0	68.0	421	62.9	72.9	69.9	A,B,C,D,F
5F	Indian Canyon Dr	13th Ave to 14th Ave	9,236	773	65.5	437	63.1	68.1	429	63.0	73.0	70.0	A,B,C,D,F
5G	Indian Canyon Dr	14th Ave to Dillon Rd	8,862	742	65.3	420	62.9	67.9	412	62.8	72.8	69.8	A,B,C,D,F
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	14,183	1,187	67.4	672	64.9	69.9	658	64.8	74.8	71.9	A,B,C,D,F
6A	Little Morongo Rd	North of Mission Lakes Blvd	1,778	126	53.3	87	51.7	56.7	41	48.4	58.4	56.3	A,B,C,D,E,F
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	4,010	277	58.3	193	56.7	61.7	87	53.3	63.3	61.2	A,B,C,D,E,F
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	4,088	276	61.0	194	59.5	64.5	80	55.6	65.6	63.7	A,B,C,D,E,F
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Tr	4,758	321	61.7	226	60.1	65.1	94	56.3	66.3	64.4	A,B,C,D,F
6E	Little Morongo Rd	Two Bunch Palms Tr to Dillon Rd	7,382	618	64.5	350	62.0	67.0	344	62.0	72.0	69.0	A,B,C,D,F
6F	Little Morongo Rd	Dillon Rd to 20th Ave	-	-	-	-	-	-	-	-	-	-	-

7A	West Dr	Mission Lakes Blvd to Pierson Blvd	3,750	272	52.9	183	51.2	56.2	98	48.5	58.5	56.2	A,B,C,D,E,F
7B	West Dr	Pierson Blvd to Hacienda Ave	3,300	239	54.3	163	52.6	57.6	86	49.8	59.8	57.5	A,B,C,D,E,F
7C	West Dr	Hacienda Ave to Two Bunch Palms Tr	5,053	366	56.1	248	54.4	59.4	132	51.7	61.7	59.4	A,B,C,D,F
8A	Palm Dr	North of Mission Lakes Blvd	272	21	39.6	15	38.2	43.2	9	36.0	46.0	43.5	A,B,C,D,E,F
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	11,500	832	59.7	563	58.0	63.0	298	55.2	65.2	62.9	A,B,C,D,E,F
8C	Palm Dr	Pierson Blvd to Hacienda Ave	20,850	1,507	62.3	1,019	60.6	65.6	541	57.8	67.8	65.5	A,B,C,D,F
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Tr	28,752	2,077	63.7	1,406	62.0	67.0	744	59.2	69.2	66.9	A,B,C,D,F
8E	Palm Dr	Two Bunch Palms Tr to Cam. Campanero	28,750	2,734	66.6	1,415	63.7	68.7	1,792	64.8	74.8	71.6	A,B,C,D,E,F
8F	Palm Dr	Cam. Campenero to Cam. Aventura	29,000	2,602	68.0	1,401	65.3	70.3	1,593	65.9	75.9	72.8	A,B,C,D,E,F
8G	Palm Dr	Cam. Aventura to Dillon Rd	29,000	2,426	70.4	1,372	67.9	72.9	1,346	67.8	77.8	74.9	A,B,C,D,E,F
8H	Palm Dr	Dillon Rd to I-10 Freeway	29,000	2,365	71.5	1,362	69.1	74.1	1,262	68.8	78.8	75.9	A,B,C,D,E,F
9A	Bubbling Wells Rd	North of Dillon Rd	3,149	222	55.7	153	54.1	59.1	74	50.9	60.9	58.8	A,B,C,D,E,F
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	1,445	99	56.5	69	54.9	59.9	29	51.2	61.2	59.2	A,B,C,D,E,F
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	3,750	392	56.5	192	53.4	58.4	285	55.1	65.1	61.8	A,B,C,D,E,F
10B	Mountain View Rd	Dillon Rd to 20th Ave	10,133	848	65.9	480	63.4	68.4	471	63.3	73.3	70.4	A,B,C,D,E,F
10C	Mountain View Rd	20th Ave to Varner Rd	11,137	932	66.3	528	63.8	68.8	518	63.8	73.8	70.8	A,B,C,D,F
11A	Long Canyon Rd	North of Dillon Rd	3,067	207	59.8	146	58.3	63.3	60	54.4	64.4	62.5	A,B,C,D,E,F
12A	10th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
12B	10th Ave	Worsley Rd to Karen Rd	-	-	-	-	-	-	-	-	-	-	-
12C	10th Ave	Karen Rd to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	3,985	272	59.6	190	58.1	63.1	82	54.4	64.4	62.4	A,B,C,D,E,F
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	4,400	303	58.7	210	57.1	62.1	95	53.7	63.7	61.6	A,B,C,D,E,F
12F	Mission Lakes Blvd	West Dr to Palm Dr	3,641	256	56.4	176	54.8	59.8	86	51.6	61.6	59.5	A,B,C,D,E,F
13A	Pierson Blvd	SR-62 to Worsley Rd	2,286	192	59.4	109	56.9	61.9	107	56.9	66.9	63.9	A,B,C,D,E,F
13B	Pierson Blvd	Worsley Rd to Diablo Rd	2,700	226	60.1	128	57.6	62.6	125	57.5	67.5	64.6	A,B,C,D,E,F
13C	Pierson Blvd	Diablo Rd to Karen Ave	2,700	226	60.1	128	57.6	62.6	125	57.5	67.5	64.6	A,B,C,D,E,F
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	2,384	200	59.6	113	57.1	62.1	112	57.1	67.1	64.1	A,B,C,D,E,F
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	5,196	449	61.8	249	59.2	64.2	261	59.5	69.5	66.4	A,B,C,D,E,F
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	7,200	622	63.2	344	60.6	65.6	361	60.8	70.8	67.8	A,B,C,D,E,F
13G	Pierson Blvd	Atlantic Ave to West Dr	7,450	669	62.1	360	59.4	64.4	409	60.0	70.0	66.9	A,B,C,D,E,F
13H	Pierson Blvd	West Dr to Palm Dr	7,400	536	57.8	362	56.1	61.1	192	53.3	63.3	61.0	A,B,C,D,E,F
13I	Pierson Blvd	Palm Dr to Miracle Hill	2,600	189	53.3	128	51.6	56.6	69	48.9	58.9	56.6	A,B,C,D,F

14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-	-	-	-	-	-
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	-	-	-	-	-	-	-	-	-	-	-
14E	Hacienda Ave	Cholla Dr to Palm Dr	4,600	318	58.9	221	57.3	62.3	99	53.8	63.8	61.8	A,B,C,D,E,F
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	7,200	520	57.7	353	56.0	61.0	186	53.2	63.2	60.9	A,B,C,D,E,F
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	7,200	505	59.3	347	57.7	62.7	166	54.5	64.5	62.3	A,B,C,D,E,F
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	7,200	505	59.3	347	57.7	62.7	166	54.5	64.5	62.3	A,B,C,D,F
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	9,400	660	60.5	453	58.8	63.8	217	55.6	65.6	63.5	A,B,C,D,F
14J	Hacienda Ave	East of Mountain View Rd	4,250	299	57.0	205	55.4	60.4	99	52.2	62.2	60.1	A,B,C,D,F
15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	-	-	-	-	-	-	-	-	-	-	-
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	3,750	259	58.0	179	56.4	61.4	81	53.0	63.0	60.9	A,B,C,D,E,F
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	3,750	259	58.0	179	56.4	61.4	81	53.0	63.0	60.9	A,B,C,D,E,F
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	3,750	259	58.0	179	56.4	61.4	81	53.0	63.0	60.9	A,B,C,D,E,F
15I	Two Bunch Palms Tr	West Dr to Palm Dr	3,750	264	56.5	181	54.9	59.9	87	51.7	61.7	59.5	A,B,C,D,E,F
15J	Two Bunch Palms Tr	East of Palm Dr	3,300	239	54.3	163	52.6	57.6	86	49.8	59.8	57.5	A,B,C,D,E,F
16A	Dillon Rd	SR-62 to Worsley Rd	2,832	237	60.3	135	57.8	62.8	132	57.8	67.8	64.8	A,B,C,D,E,F
16B	Dillon Rd	Worsley Rd to Diablo Rd	2,650	222	60.1	126	57.6	62.6	124	57.6	67.6	64.6	A,B,C,D,E,F
16C	Dillon Rd	Diablo Rd to Karen Ave	2,842	238	60.4	135	57.9	62.9	132	57.8	67.8	64.9	A,B,C,D,E,F
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	2,557	215	59.9	122	57.4	62.4	120	57.4	67.4	64.4	A,B,C,D,E,F
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	9,779	819	65.7	463	63.2	68.2	454	63.1	73.1	70.2	A,B,C,D,E,F
16F	Dillon Rd	Little Morongo Rd to Palm Dr	10,081	844	65.8	478	63.4	68.4	469	63.3	73.3	70.3	A,B,C,D,F
16G	Dillon Rd	Palm Dr to Mountain View Rd	10,539	882	66.0	500	63.6	68.6	489	63.5	73.5	70.5	A,B,C,D,F
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	10,866	910	66.2	515	63.7	68.7	505	63.6	73.6	70.6	A,B,C,D,F
16I	Dillon Rd	East of Long Canyon Rd	12,544	1,050	66.8	594	64.3	69.3	583	64.2	74.2	71.3	A,B,C,D,F
17A	20th Ave	Worsley Rd to Diablo Rd	1,489	102	56.7	71	55.1	60.1	29	51.3	61.3	59.4	A,B,C,D,E,F
17B	20th Ave	Diablo Rd to Karen Ave	1,489	102	56.7	71	55.1	60.1	29	51.3	61.3	59.4	A,B,C,D,F
17C	20th Ave	Karen Ave to Indian Canyon Dr	530	36	52.2	26	50.7	55.7	12	47.3	57.3	55.2	A,B,C,D,F
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	1,214	103	56.7	59	54.3	59.3	57	54.2	64.2	61.2	A,B,C,D,F
17E	20th Ave	Little Morongo Rd to Palm Dr	-	-	-	-	-	-	-	-	-	-	-
17F	20th Ave	Palm Dr to Mountain View Rd	1,214	103	56.7	59	54.3	59.3	57	54.2	64.2	61.2	A,B,C,D,F
18A	Varner Rd	Mihaylo Rd to Palm Dr	8	2	39.6	2	39.4	44.4	2	38.6	48.6	45.5	A,B,C,D,E,F
18B	Varner Rd	Palm Dr to Mountain View Rd	1,964	165	58.8	94	56.3	61.3	92	56.2	66.2	63.3	A,B,C,D,F
18C	Varner Rd	East of Mountain View Rd	12,050	1,009	66.6	571	64.2	69.2	560	64.1	74.1	71.1	A,B,C,D,F
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	1,000	73	47.2	51	45.6	50.6	26	42.8	52.8	50.5	A,B,C,D,E,F

20	SR 62	I10 to Indian Canyon Drive	18,667	1,485	70.7	1,215	69.8	74.8	1,215	69.8	79.8	76.6	A,B,C,D,E,F
21	I-10	SR62 to Date Palm Drive	90,000	10,978	79.3	8,800	78.3	83.3	8,800	78.3	88.3	85.1	A,B,C,D,E,F

Table Notes:

A ADT from Appendix Table A.

B Equivalent hourly traffic calculated by multiplying vehicles per hour from Appendix Table C times Caltrans equivalent vehicle factors for medium and heavy duty trucks (Caltrans 2013a, see also Appendix Table XYZ).

C Evening and nighttime CNEL values equal to L_{eq} (h) values plus 5 and 10 dBA, respectively.

D 24-hour CNEL assumes 12 hours of daytime L_{eq} (h), plus 3 hours of evening CNEL value L_{eq} (h), plus 9 hours of nighttime CNEL value L_{eq} (h).

E Daytime roadway segment was modeled using TNM Version 2.5.

F Daytime, evening, and nighttime roadway segment L_{eq} (h) and/or CNEL values estimated using Caltrans equation 4.2 (Caltrans, 2013a).

Table References:

Caltrans 2013a. Technical Noise Supplement to the Traffic Analysis Protocol. Sacramento, CA. September 2013.

Desert Hot Springs General Plan Update

Desert Hot Springs, CA

Appendix: Current General Plan 2040 Traffic Noise Contour Distances

Prepared by MIG, October 2019

TABLE E: Estimated Current General Plan 2040 Traffic Noise Contour Distances

ID	Road	Road Segment	2019 CNEL 100 Feet from Road Center	Estimated Distance to Noise Contour				
				75 CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	52.9	1	2	6	19	61
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	67.1	16	52	163	516	1,632
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	62.4	6	17	55	174	551
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	62.4	6	17	55	174	551
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	69.6	29	90	286	904	2,858
1F	Worsley Rd	Dillon Rd to 20th Ave	66.4	14	44	138	436	1,378
2A	Oasis Dr	13th Ave to 14th Ave	58.5	2	7	22	71	225
3A	Diablo Rd	14th Ave to Dillon Rd	61.3	4	14	43	136	430
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	-	-	-	-	-	-
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	72.3	53	169	535	1,691	5,347
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	72.0	50	158	501	1,583	5,005
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	72.0	50	159	504	1,594	5,041
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	72.2	52	166	524	1,657	5,241
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	73.5	71	226	715	2,260	7,148
5F	Indian Canyon Dr	13th Ave to 14th Ave	73.7	74	233	738	2,332	7,376
5G	Indian Canyon Dr	14th Ave to Dillon Rd	74.8	96	302	955	3,021	9,552
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	77.0	157	497	1,570	4,966	15,703
6A	Little Morongo Rd	North of Mission Lakes Blvd	58.2	2	7	21	66	209
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	66.0	13	40	126	398	1,258
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	66.6	14	45	143	453	1,431
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	66.9	15	49	154	485	1,535
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	73.2	66	208	658	2,080	6,578
6F	Little Morongo Rd	Dillon Rd to 20th Ave	71.3	42	134	423	1,337	4,227
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	62.1	5	16	51	162	512
7B	West Dr	Pierson Blvd to Hacienda Ave	62.6	6	18	58	184	582
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	62.6	6	18	58	184	582
8A	Palm Dr	North of Mission Lakes Blvd	50.4	0	1	3	11	35
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	68.6	23	72	228	722	2,282
8C	Palm Dr	Pierson Blvd to Hacienda Ave	68.1	20	64	203	642	2,030
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	69.4	27	87	274	866	2,739
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	76.8	151	476	1,506	4,763	15,061
8F	Palm Dr	Cam. Campenero to Cam. Aventura	77.7	184	583	1,845	5,833	18,446
8G	Palm Dr	Cam. Aventura to Dillon Rd	78.2	210	665	2,103	6,652	21,035
8H	Palm Dr	Dillon Rd to I-10 Freeway	77.7	188	593	1,876	5,931	18,756
9A	Bubbling Wells Rd	North of Dillon Rd	60.6	4	11	36	114	361
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	61.9	5	16	49	156	494

10A	Mountain View Rd	Hacienda Ave to Dillon Rd	71.6	45	144	455	1,438	4,547
10B	Mountain View Rd	Dillon Rd to 20th Ave	74.2	83	261	826	2,611	8,255
10C	Mountain View Rd	20th Ave to Varner Rd	74.7	93	295	933	2,951	9,333
11A	Long Canyon Rd	North of Dillon Rd	61.5	4	14	44	140	444
12A	10th Ave	SR-62 to Worsley Rd	52.9	1	2	6	20	62
12B	10th Ave	Worsley Rd to Karen Rd	63.3	7	21	67	212	671
12C	10th Ave	Karen Rd to Indian Canyon Dr	64.9	10	31	97	306	969
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	64.5	9	28	89	282	891
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	63.1	6	20	65	204	646
12F	Mission Lakes Blvd	West Dr to Palm Dr	60.3	3	11	34	108	341
13A	Pierson Blvd	SR-62 to Worsley Rd	71.7	47	147	466	1,473	4,658
13B	Pierson Blvd	Worsley Rd to Diablo Rd	71.3	42	133	422	1,334	4,217
13C	Pierson Blvd	Diablo Rd to Karen Ave	71.1	41	129	409	1,292	4,086
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	70.7	37	117	369	1,166	3,686
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	70.3	34	107	337	1,067	3,373
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	71.6	46	145	459	1,450	4,587
13G	Pierson Blvd	Atlantic Ave to West Dr	69.8	30	95	301	951	3,007
13H	Pierson Blvd	West Dr to Palm Dr	69.8	30	95	301	951	3,007
13I	Pierson Blvd	Palm Dr to Miracle Hill	65.7	12	37	117	370	1,169
14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	61.0	4	13	40	125	395
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	63.2	7	21	66	210	664
14E	Hacienda Ave	Cholla Dr to Palm Dr	65.8	12	38	120	381	1,204
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	65.4	11	34	109	344	1,087
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	65.4	11	34	109	344	1,087
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	65.4	11	34	109	344	1,087
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	65.4	11	34	109	344	1,087
14J	Hacienda Ave	East of Mountain View Rd	66.0	13	40	126	398	1,257
15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	60.6	4	11	36	114	361
15F	Two Bunch Palms Trail	Little Morongo Rd to Cabot Dr	66.8	15	47	150	473	1,497
15G	Two Bunch Palms Trail	Cabot Dr to Cholla Dr	66.8	15	47	150	473	1,497
15H	Two Bunch Palms Trail	Cholla Dr to West Dr	67.0	16	50	159	503	1,591
15I	Two Bunch Palms Trail	West Dr to Palm Dr	67.0	16	50	159	503	1,591
15J	Two Bunch Palms Trail	East of Palm Dr	65.3	11	34	107	338	1,068
16A	Dillon Rd	SR-62 to Worsley Rd	72.1	51	161	511	1,614	5,105
16B	Dillon Rd	Worsley Rd to Diablo Rd	69.8	30	95	301	953	3,013
16C	Dillon Rd	Diablo Rd to Karen Ave	70.7	38	119	375	1,187	3,754
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	71.0	40	126	399	1,261	3,988
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	73.3	67	213	673	2,128	6,731
16F	Dillon Rd	Little Morongo Rd to Palm Dr	74.0	79	248	785	2,483	7,852
16G	Dillon Rd	Palm Dr to Mountain View Rd	73.2	66	209	659	2,085	6,594
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	71.8	48	151	476	1,507	4,764
16I	Dillon Rd	East of Long Canyon Rd	72.8	60	191	603	1,908	6,033

17A	20th Ave	Worsley Rd to Diablo Rd	64.2	8	26	83	262	828
17B	20th Ave	Diablo Rd to Karen Ave	61.9	5	16	49	155	491
17C	20th Ave	Karen Ave to Indian Canyon Dr	60.9	4	12	39	123	389
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	70.6	36	114	362	1,144	3,617
17E	20th Ave	Little Morongo Rd to Palm Dr	69.7	29	93	294	929	2,938
17F	20th Ave	Palm Dr to Mountain View Rd	70.3	34	108	341	1,079	3,413
18A	Varner Rd	Mihaylo Rd to Palm Dr	67.1	16	51	161	511	1,615
18B	Varner Rd	Palm Dr to Mountain View Rd	69.2	26	83	262	828	2,618
18C	Varner Rd	East of Mountain View Rd	74.9	98	310	980	3,098	9,798
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	61.1	4	13	40	128	404
20	SR 62	I10 to Indian Canyon Drive	79.1	257	813	2,572	8,133	25,718
21	I-10	SR62 to Date Palm Drive	88.0	2,006	6,344	20,062	63,443	200,624

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Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Current General Plan 2040 TNM Information - Roadway Segment Data
Prepared by MIG, October 2019

TABLE F: Current General Plan 2040 TNM Roadway Segment Data

ID	Road	Road Segment	Road Segment Information							Notes
			Classification	Length (Miles)	Length (Feet)	Average Lanes	Average Width (Feet)	Posted Speed (MPH)	Average Daily Traffic (ADT)	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	Minor Collector	2.00	10,560	4	64	55	300	A, B, C
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.10	5,808	4	64	55	8,900	A, B, C
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	Minor Collector	0.58	3,062	4	64	55	3,000	A, B, C
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	Minor Collector	0.56	2,957	4	64	55	3,000	A, B, C
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	Minor Collector	1.50	7,920	4	64	55	15,600	A, B, C
1F	Worsley Rd	Dillon Rd to 20th Ave	Minor Collector	0.80	4,224	4	64	55	7,500	A, B, C
2A	Oasis Dr	13th Ave to 14th Ave	Secondary	0.50	2,640	4	64	45	2,600	A, B, C
3A	Diablo Rd	14th Ave to Dillon Rd	Local Collector	1.50	7,920	2	40	35	7,900	A, B, C
4A	Karen Ave	Indian Canyon Dr to 10th Ave	NA	-	-	-	-	-	-	D
4B	Karen Ave	10th Ave to Pierson Blvd	NA	-	-	-	-	-	-	D
4C	Karen Ave	Pierson Blvd to 13th Ave	NA	-	-	-	-	-	-	D
4D	Karen Ave	13th Ave to 14th Ave	NA	-	-	-	-	-	-	D
4E	Karen Ave	14th Ave to Dillon Rd	NA	-	-	-	-	-	-	D
5A	Indian Canyon Dr	SR-62 to Worsley Rd	Minor Arterial	0.10	528	4	86	55	15,700	A, B, C
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	Minor Arterial	0.85	4,488	4	86	55	14,700	A, B, C
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	Minor Arterial	1.95	10,296	4	86	55	14,800	A, B, C
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	Minor Arterial	1.00	5,280	4	86	55	15,400	A, B, C
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	Major Arterial	0.50	2,640	6	94	55	21,000	A, B, C
5F	Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	0.50	2,640	6	94	55	21,700	A, B, C
5G	Indian Canyon Dr	14th Ave to Dillon Rd	Major Arterial	1.50	7,920	6	94	55	28,100	A, B, C
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	Urban Arterial	1.30	6,864	8	126	60	36,800	A, B, C
6A	Little Morongo Rd	North of Mission Lakes Blvd	Minor Collector	0.84	4,435	4	64	45	2,000	A, B, C
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	Major Collector	1.00	5,280	4	64	45	12,100	A, B, C
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	Major Collector	0.50	2,640	4	64	45	13,800	A, B, C
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	Major Collector	0.50	2,640	4	64	45	14,800	A, B, C
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	Major Arterial	1.50	7,920	6	94	55	19,300	A, B, C
6F	Little Morongo Rd	Dillon Rd to 20th Ave	Major Arterial	1.50	7,920	6	94	55	12,400	A, B, C
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.00	5,280	4	64	45	4,900	A, B, C
7B	West Dr	Pierson Blvd to Hacienda Ave	Minor Collector	0.50	2,640	4	64	45	5,600	A, B, C
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	Minor Collector	0.50	2,640	4	64	45	5,600	A, B, C

8A	Palm Dr	North of Mission Lakes Blvd	Secondary	0.40	2,112	4	64	45	300	A, B, C	
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	Minor Collector	1.00	5,280	4	64	45	22,000	A, B, C	
8C	Palm Dr	Pierson Blvd to Hacienda Ave	Major Collector	0.50	2,640	4	80	45	24,000	A, B, C	
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	Major Collector	0.50	2,640	4	80	45	32,400	A, B, C	
8E	Palm Dr	Two Bunch Palms Tr to Cam. Campanero	Major Arterial	0.50	2,640	6	94	55	44,900	A, B, C	
8F	Palm Dr	Cam. Campenero to Cam. Aventura	Urban Arterial	0.50	2,640	8	126	60	43,000	A, B, C	
8G	Palm Dr	Cam. Aventura to Dillon Rd	Urban Arterial	0.50	2,640	8	126	60	49,000	A, B, C	
8H	Palm Dr	Dillon Rd to I-10 Freeway	Urban Arterial	3.00	15,840	8	126	60	43,700	A, B, C	
9A	Bubbling Wells Rd	North of Dillon Rd	Minor Collector	1.00	5,280	4	64	45	3,500	A, B, C	
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	Minor Collector	1.50	7,920	4	64	45	4,800	A, B, C	
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	Minor Arterial	2.00	10,560	4	80	55	13,500	A, B, C	
10B	Mountain View Rd	Dillon Rd to 20th Ave	Minor Arterial	1.50	7,920	4	80	55	24,500	A, B, C	
10C	Mountain View Rd	20th Ave to Varner Rd	Minor Arterial	1.20	6,336	4	80	55	27,700	A, B, C	
11A	Long Canyon Rd	North of Dillon Rd	Minor Collector	1.50	7,920	4	64	45	4,300	A, B, C	
12A	10th Ave	SR-62 to Worsley Rd	Major Collector	0.50	2,640	4	80	45	700	A, B, C	
12B	10th Ave	Worsley Rd to Karen Rd	Minor Collector	0.85	4,488	4	64	45	7,900	A, B, C	
12C	10th Ave	Karen Rd to Indian Canyon Dr	Minor Collector	1.00	5,280	4	64	45	11,400	A, B, C	
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	Minor Collector	1.00	5,280	4	64	45	10,500	A, B, C	
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	Minor Collector	0.75	3,960	4	64	45	7,600	A, B, C	
12F	Mission Lakes Blvd	West Dr to Palm Dr	Minor Collector	1.00	5,280	4	64	45	4,000	A, B, C	
13A	Pierson Blvd	SR-62 to Worsley Rd	Major Arterial	0.25	1,320	6	94	55	13,900	A, B, C	
13B	Pierson Blvd	Worsley Rd to Diablo Rd	Major Arterial	0.35	1,848	6	94	55	12,600	A, B, C	
13C	Pierson Blvd	Diablo Rd to Karen Ave	Major Arterial	1.00	5,280	6	94	55	12,200	A, B, C	
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	Major Arterial	1.00	5,280	6	94	55	11,000	A, B, C	
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	4	80	55	10,000	A, B, C	
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	Minor Arterial	0.50	2,640	4	80	55	13,600	A, B, C	
13G	Pierson Blvd	Atlantic Ave to West Dr	Minor Arterial	0.50	2,640	4	80	55	8,900	A, B, C	
13H	Pierson Blvd	West Dr to Palm Dr	Minor Arterial	0.50	2,640	4	80	55	8,900	A, B, C	
13I	Pierson Blvd	Palm Dr to Miracle Hill	Secondary	0.90	4,752	4	64	45	11,400	A, B, C	
14A	13th Ave	Diablo Rd to Karen Ave	NA	-	-	-	-	-	-	D	
14B	13th Ave	Karen Ave to Indian Canyon Dr	NA	-	-	-	-	-	-	D	
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	Minor Collector	1.00	5,280	4	64	45	3,800	A, B, C	
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	Minor Collector	0.75	3,960	4	64	45	6,400	A, B, C	
14E	Hacienda Ave	Cholla Dr to Palm Dr	Minor Collector	0.75	3,960	4	64	45	11,600	A, B, C	
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	Minor Collector	0.10	528	4	64	45	10,500	A, B, C	
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	Minor Collector	0.40	2,112	4	64	45	10,500	A, B, C	
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	Minor Collector	0.50	2,640	4	64	45	10,500	A, B, C	
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	Minor Collector	0.50	2,640	4	64	45	10,500	A, B, C	
14J	Hacienda Ave	East of Mountain View Rd	Minor Collector	1.10	5,808	4	64	45	12,100	A, B, C	

15A	14th Ave	SR-62 to Worsley Rd	NA	-	-	-	-	-	-	D
15B	14th Ave	Worsley Rd to Diablo Rd	NA	-	-	-	-	-	-	D
15C	14th Ave	Diablo Rd to Karen Ave	NA	-	-	-	-	-	-	D
15D	14th Ave	Karen Ave to Indian Canyon Dr	NA	-	-	-	-	-	-	D
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	Secondary	1.00	5,280	4	64	45	3,500	A, B, C
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	Secondary	0.40	2,112	4	64	45	14,600	A, B, C
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	Secondary	0.40	2,112	4	64	45	14,600	A, B, C
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	Secondary	0.25	1,320	4	64	45	15,500	A, B, C
15I	Two Bunch Palms Tr	West Dr to Palm Dr	Secondary	0.50	2,640	4	64	45	15,500	A, B, C
15J	Two Bunch Palms Tr	East of Palm Dr	Secondary	1.10	5,808	4	64	45	10,400	A, B, C
16A	Dillon Rd	SR-62 to Worsley Rd	Major Arterial	0.17	898	6	94	55	15,100	A, B, C
16B	Dillon Rd	Worsley Rd to Diablo Rd	Major Arterial	1.00	5,280	6	94	55	8,900	A, B, C
16C	Dillon Rd	Diablo Rd to Karen Ave	Major Arterial	1.00	5,280	6	94	55	11,100	A, B, C
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	Major Arterial	1.00	5,280	6	94	55	11,800	A, B, C
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	4	80	55	19,700	A, B, C
16F	Dillon Rd	Little Morongo Rd to Palm Dr	Minor Arterial	1.50	7,920	4	80	55	23,000	A, B, C
16G	Dillon Rd	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	4	80	55	19,300	A, B, C
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	Major Arterial	1.00	5,280	6	94	55	14,200	A, B, C
16I	Dillon Rd	East of Long Canyon Rd	Major Arterial	2.00	10,560	6	94	55	18,000	A, B, C
17A	20th Ave	Worsley Rd to Diablo Rd	Minor Collector	1.10	5,808	4	64	45	8,100	A, B, C
17B	20th Ave	Diablo Rd to Karen Ave	Minor Collector	1.00	5,280	4	64	45	4,800	A, B, C
17C	20th Ave	Karen Ave to Indian Canyon Dr	Minor Collector	1.00	5,280	4	64	45	3,800	A, B, C
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	Minor Arterial	1.00	5,280	4	80	55	10,700	A, B, C
17E	20th Ave	Little Morongo Rd to Palm Dr	Minor Arterial	1.50	7,920	4	80	55	8,700	A, B, C
17F	20th Ave	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	4	80	55	10,100	A, B, C
18A	Varner Rd	Mihaylo Rd to Palm Dr	Minor Collector	1.00	5,280	4	64	45	7,800	A, B, C
18B	Varner Rd	Palm Dr to Mountain View Rd	Minor Arterial	1.50	7,920	4	86	55	7,800	A, B, C
18C	Varner Rd	East of Mountain View Rd	Minor Arterial	0.50	2,640	4	86	55	29,200	A, B, C
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	Minor Collector	0.50	2,640	2	35	35	7,325	B, E
20A	SR 62	I10 to Indian Canyon Drive	Freeway	6.40	33,792	4	150	65	33,480	B, E
21A	I-10	SR62 to Date Palm Drive	Freeway	9.80	51,744	4	140	65	174,742	B, E

Table Notes:

A Road segment classification obtained from Table 5 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019a).

B Posted speed information for different roadway classifications was obtained from the City's Engineering and Traffic Survey For Speed Limits (City of Desert Hot Springs 2018), if available, or Google Earth imagery. The posted speed limit was assumed to be 65 miles per hour (mph) for freeways, 55 mph for XYZ, 45 mph for XYZ, and 35 mph for XYZ.

C Average daily traffic (ADT) values obtained from Table 5 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019a).

D "NA" = Not applicable. This road segment does not exist under current General Plan 2040 conditions.

E ADT values obtained from autmobile and truck traffic count plots provided by Ganddini Group, Inc. (2019b and 2019c).

Table References:

City of Desert Hot Springs 2018. *Engineering and Traffic Survey for Speed Limits.* Prepared by Hartzog and Crabill, Inc., Tustin, CA. Desert Hot Springs, CA. November 2018.

Ganddini Group 2019a. *Desert Hot Springs General Plan Update Traffic Impact Analysis.* Santa Ana, CA. July 8, 2019.

Gandinni Group 2019b. *2040 Desert Hot Spring Existing General Plan (Daily - Autos)* . July 2019.

Gandinni Group 2019b. *2040 Desert Hot Spring Existing General Plan (Daily - Trucks)* . July 2019.

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Current General Plan 2040 TNM Information - Vehicles Per Hour
Prepared by MIG, October 2019

TABLE G: Current General Plan 2040 TNM Vehicles Per Hour Data

ID	Road	Road Segment	ADT	Vehicles Per Hour (Daytime)			Vehicle Per Hour (Evening)			Vehicles Per Hour (Night)			Notes
				Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	300	18.4	0.3	0.1	13.6	0.1	0.1	3.4	0.3	0.2	A,B
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	8,900	545.9	6.7	2.6	403.5	1.2	1.2	100.9	8.9	3.5	A,B
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	3,000	184.0	2.3	0.9	136.0	0.4	0.4	34.0	3.0	1.2	A,B
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	3,000	184.0	2.3	0.9	136.0	0.4	0.4	34.0	3.0	1.2	A,B
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	15,600	956.8	11.7	4.6	707.2	2.1	2.1	176.8	15.6	6.1	A,B
1F	Worsley Rd	Dillon Rd to 20th Ave	7,500	460.0	5.7	2.2	340.0	1.0	1.0	85.0	7.5	3.0	A,B
2A	Oasis Dr	13th Ave to 14th Ave	2,600	159.5	2.0	0.8	117.9	0.4	0.4	29.5	2.6	1.1	A,B
3A	Diablo Rd	14th Ave to Dillon Rd	7,900	484.6	6.0	2.4	358.2	1.1	1.1	89.6	7.9	3.1	A,B
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	-	-	-	-	-	-	-	-	-	-	-
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	15,700	909.3	18.9	31.4	675.1	3.2	5.3	167.5	26.2	43.7	A,B
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	14,700	851.4	17.7	29.4	632.1	3.0	4.9	156.8	24.5	40.9	A,B
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	14,800	857.2	17.8	29.6	636.4	3.0	5.0	157.9	24.7	41.2	A,B
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	15,400	892.0	18.5	30.8	662.2	3.1	5.2	164.3	25.7	42.8	A,B
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	21,000	1,216.3	25.2	42.0	903.0	4.2	7.0	224.0	35.0	58.4	A,B
5F	Indian Canyon Dr	13th Ave to 14th Ave	21,700	1,256.8	26.1	43.4	933.1	4.4	7.3	231.5	36.2	60.3	A,B
5G	Indian Canyon Dr	14th Ave to Dillon Rd	28,100	1,627.5	33.8	56.2	1,208.3	5.7	9.4	299.8	46.9	78.1	A,B
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	36,800	2,131.4	44.2	73.6	1,582.4	7.4	12.3	392.6	61.4	102.3	A,B
6A	Little Morongo Rd	North of Mission Lakes Blvd	2,000	122.7	1.5	0.6	90.7	0.3	0.3	22.7	2.0	0.8	A,B
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	12,100	742.2	9.1	3.6	548.6	1.7	1.7	137.2	12.1	4.8	A,B
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	13,800	846.4	10.4	4.1	625.6	1.9	1.9	156.4	13.8	5.4	A,B
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	14,800	907.8	11.1	4.4	671.0	2.0	2.0	167.8	14.8	5.8	A,B
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	19,300	1,117.8	23.2	38.6	829.9	3.9	6.5	205.9	32.2	53.7	A,B
6F	Little Morongo Rd	Dillon Rd to 20th Ave	12,400	718.2	14.9	24.8	533.2	2.5	4.2	132.3	20.7	34.5	A,B

7A	West Dr	Mission Lakes Blvd to Pierson Blvd	4,900	300.6	3.7	1.5	222.2	0.7	0.7	55.6	4.9	2.0	A,B
7B	West Dr	Pierson Blvd to Hacienda Ave	5,600	343.5	4.2	1.7	253.9	0.8	0.8	63.5	5.6	2.2	A,B

7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,600	343.5	4.2	1.7	253.9	0.8	0.8	63.5	5.6	2.2	A,B
8A	Palm Dr	North of Mission Lakes Blvd	300	18.4	0.3	0.1	13.6	0.1	0.1	3.4	0.3	0.2	A,B
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	22,000	1,349.4	16.5	6.5	997.4	3.0	3.0	249.4	22.0	8.6	A,B
8C	Palm Dr	Pierson Blvd to Hacienda Ave	24,000	1,472.0	18.0	7.0	1,088.0	3.2	3.2	272.0	24.0	9.4	A,B
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	32,400	1,987.2	24.3	9.5	1,468.8	4.4	4.4	367.2	32.4	12.6	A,B
8E	Palm Dr	Two Bunch Palms Tr to Cam. Campanero	44,900	2,600.5	53.9	89.8	1,930.7	9.0	15.0	479.0	74.9	124.8	A,B
8F	Palm Dr	Cam. Campenero to Cam. Aventura	43,000	2,490.5	51.6	86.0	1,849.0	8.6	14.4	458.7	71.7	119.5	A,B
8G	Palm Dr	Cam. Aventura to Dillon Rd	49,000	2,838.0	58.8	98.0	2,107.0	9.8	16.4	522.7	81.7	136.2	A,B
8H	Palm Dr	Dillon Rd to I-10 Freeway	43,700	2,531.0	52.5	87.4	1,879.1	8.8	14.6	466.2	72.9	121.4	A,B
9A	Bubbling Wells Rd	North of Dillon Rd	3,500	214.7	2.7	1.1	158.7	0.5	0.5	39.7	3.5	1.4	A,B
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	4,800	294.4	3.6	1.4	217.6	0.7	0.7	54.4	4.8	1.9	A,B
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	13,500	781.9	16.2	27.0	580.5	2.7	4.5	144.0	22.5	37.5	A,B
10B	Mountain View Rd	Dillon Rd to 20th Ave	24,500	1,419.0	29.4	49.0	1,053.5	4.9	8.2	261.4	40.9	68.1	A,B
10C	Mountain View Rd	20th Ave to Varner Rd	27,700	1,604.3	33.3	55.4	1,191.1	5.6	9.3	295.5	46.2	77.0	A,B
11A	Long Canyon Rd	North of Dillon Rd	4,300	263.8	3.3	1.3	195.0	0.6	0.6	48.8	4.3	1.7	A,B
12A	10th Ave	SR-62 to Worsley Rd	700	43.0	0.6	0.3	31.8	0.1	0.1	8.0	0.7	0.3	A,B
12B	10th Ave	Worsley Rd to Karen Rd	7,900	484.6	6.0	2.4	358.2	1.1	1.1	89.6	7.9	3.1	A,B
12C	10th Ave	Karen Rd to Indian Canyon Dr	11,400	699.2	8.6	3.4	516.8	1.6	1.6	129.2	11.4	4.5	A,B
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	7,600	466.2	5.7	2.3	344.6	1.1	1.1	86.2	7.6	3.0	A,B
12F	Mission Lakes Blvd	West Dr to Palm Dr	4,000	245.4	3.0	1.2	181.4	0.6	0.6	45.4	4.0	1.6	A,B
13A	Pierson Blvd	SR-62 to Worsley Rd	13,900	805.1	16.7	27.8	597.7	2.8	4.7	148.3	23.2	38.7	A,B
13B	Pierson Blvd	Worsley Rd to Diablo Rd	12,600	729.8	15.2	25.2	541.8	2.6	4.2	134.4	21.0	35.0	A,B
13C	Pierson Blvd	Diablo Rd to Karen Ave	12,200	706.6	14.7	24.4	524.6	2.5	4.1	130.2	20.4	33.9	A,B
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	11,000	637.1	13.2	22.0	473.0	2.2	3.7	117.4	18.4	30.6	A,B
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	10,000	579.2	12.0	20.0	430.0	2.0	3.4	106.7	16.7	27.8	A,B
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	13,600	787.7	16.4	27.2	584.8	2.8	4.6	145.1	22.7	37.8	A,B
13G	Pierson Blvd	Atlantic Ave to West Dr	8,900	515.5	10.7	17.8	382.7	1.8	3.0	95.0	14.9	24.8	A,B
13H	Pierson Blvd	West Dr to Palm Dr	8,900	515.5	10.7	17.8	382.7	1.8	3.0	95.0	14.9	24.8	A,B
13I	Pierson Blvd	Palm Dr to Miracle Hill	11,400	699.2	8.6	3.4	516.8	1.6	1.6	129.2	11.4	4.5	A,B
14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	3,800	233.1	2.9	1.2	172.3	0.6	0.6	43.1	3.8	1.5	A,B
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	6,400	392.6	4.8	1.9	290.2	0.9	0.9	72.6	6.4	2.5	A,B
14E	Hacienda Ave	Cholla Dr to Palm Dr	11,600	711.5	8.7	3.4	525.9	1.6	1.6	131.5	11.6	4.6	A,B
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
14J	Hacienda Ave	East of Mountain View Rd	12,100	742.2	9.1	3.6	548.6	1.7	1.7	137.2	12.1	4.8	A,B

15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	3,500	214.7	2.7	1.1	158.7	0.5	0.5	39.7	3.5	1.4	A,B
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	14,600	895.5	11.0	4.3	661.9	2.0	2.0	165.5	14.6	5.7	A,B
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	14,600	895.5	11.0	4.3	661.9	2.0	2.0	165.5	14.6	5.7	A,B
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	15,500	950.7	11.7	4.6	702.7	2.1	2.1	175.7	15.5	6.1	A,B
15I	Two Bunch Palms Tr	West Dr to Palm Dr	15,500	950.7	11.7	4.6	702.7	2.1	2.1	175.7	15.5	6.1	A,B
15J	Two Bunch Palms Tr	East of Palm Dr	10,400	637.9	7.8	3.1	471.5	1.4	1.4	117.9	10.4	4.1	A,B
16A	Dillon Rd	SR-62 to Worsley Rd	15,100	874.6	18.2	30.2	649.3	3.1	5.1	161.1	25.2	42.0	A,B
16B	Dillon Rd	Worsley Rd to Diablo Rd	8,900	515.5	10.7	17.8	382.7	1.8	3.0	95.0	14.9	24.8	A,B
16C	Dillon Rd	Diablo Rd to Karen Ave	11,100	642.9	13.4	22.2	477.3	2.3	3.7	118.4	18.5	30.9	A,B
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	11,800	683.5	14.2	23.6	507.4	2.4	4.0	125.9	19.7	32.8	A,B
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	19,700	1,141.0	23.7	39.4	847.1	4.0	6.6	210.2	32.9	54.8	A,B
16F	Dillon Rd	Little Morongo Rd to Palm Dr	23,000	1,332.1	27.6	46.0	989.0	4.6	7.7	245.4	38.4	63.9	A,B
16G	Dillon Rd	Palm Dr to Mountain View Rd	19,300	1,117.8	23.2	38.6	829.9	3.9	6.5	205.9	32.2	53.7	A,B
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	14,200	822.5	17.1	28.4	610.6	2.9	4.8	151.5	23.7	39.5	A,B
16I	Dillon Rd	East of Long Canyon Rd	18,000	1,042.5	21.6	36.0	774.0	3.6	6.0	192.0	30.0	50.0	A,B
17A	20th Ave	Worsley Rd to Diablo Rd	8,100	496.8	6.1	2.4	367.2	1.1	1.1	91.8	8.1	3.2	A,B
17B	20th Ave	Diablo Rd to Karen Ave	4,800	294.4	3.6	1.4	217.6	0.7	0.7	54.4	4.8	1.9	A,B
17C	20th Ave	Karen Ave to Indian Canyon Dr	3,800	233.1	2.9	1.2	172.3	0.6	0.6	43.1	3.8	1.5	A,B
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	10,700	619.8	12.9	21.4	460.1	2.2	3.6	114.2	17.9	29.8	A,B
17E	20th Ave	Little Morongo Rd to Palm Dr	8,700	503.9	10.5	17.4	374.1	1.8	2.9	92.8	14.5	24.2	A,B
17F	20th Ave	Palm Dr to Mountain View Rd	10,100	585.0	12.2	20.2	434.3	2.1	3.4	107.8	16.9	28.1	A,B
18A	Varner Rd	Mihaylo Rd to Palm Dr	7,800	451.8	9.4	15.6	335.4	1.6	2.6	83.2	13.0	21.7	A,B
18B	Varner Rd	Palm Dr to Mountain View Rd	7,800	451.8	9.4	15.6	335.4	1.6	2.6	83.2	13.0	21.7	A,B
18C	Varner Rd	East of Mountain View Rd	29,200	1,691.2	35.1	58.4	1,255.6	5.9	9.8	311.5	48.7	81.2	A,B
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	7,325	449.3	5.5	2.2	332.1	1.0	1.0	83.1	7.4	2.9	A,B
20A	SR 62	I10 to Indian Canyon Drive	33,480	1,322.6	101.1	110.8	1,082.4	82.7	90.7	1,082.4	82.7	90.7	A,B
21A	I-10	SR62 to Date Palm Drive	174,742	6,068.4	497.1	1,517.5	4,864.3	398.5	1,216.4	4,864.3	398.5	1,216.4	A,B

Table Notes:

A ADT from Appendix Table F.

B Vehicles per hour calculated by multiplying the roadway segment ADT by Riverside County daytime, evening, and nighttime traffix mix percentages for the given roadway classification (see Appendix Table N).

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Current General Plan 2040 Traffic Noise CNEL Calculations
Prepared by MIG, October 2019

TABLE H: Current General Plan 2040 Traffic Noise CNEL Calculations

ID	Road	Road Segment	ADT	Daytime		Evening			Nighttime			24-Hour CNEL	Notes
				Equivalent Hourly Traffic	Leq(h)	Equivalent Hourly Traffic	Leq(h)	CNEL Value	Equivalent Hourly Traffic	Leq(h)	CNEL Value		
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	300	21	49.8	15	48.4	53.4	7	45.0	55.0	52.9	A,B,C,D,E,F
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	8,900	601	64.4	421	62.9	67.9	174	59.0	69.0	67.1	A,B,C,D,F
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	3,000	203	59.7	142	58.2	63.2	59	54.3	64.3	62.4	A,B,C,D,F
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	3,000	203	59.7	142	58.2	63.2	59	54.3	64.3	62.4	A,B,C,D,F
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	15,600	1,053	66.9	738	65.3	70.3	304	61.5	71.5	69.6	A,B,C,D,F
1F	Worsley Rd	Dillon Rd to 20th Ave	7,500	506	63.7	355	62.1	67.1	147	58.3	68.3	66.4	A,B,C,D,F
2A	Oasis Dr	13th Ave to 14th Ave	2,600	180	55.6	125	54.0	59.0	57	50.6	60.6	58.5	A,B,C,D,E,F
3A	Diablo Rd	14th Ave to Dillon Rd	7,900	573	58.1	387	56.4	61.4	205	53.6	63.6	61.3	A,B,C,D,E,F
4A	Karen Ave	Indian Canyon Dr to 10th Ave	-	-	-	-	-	-	-	-	-	-	-
4B	Karen Ave	10th Ave to Pierson Blvd	-	-	-	-	-	-	-	-	-	-	-
4C	Karen Ave	Pierson Blvd to 13th Ave	-	-	-	-	-	-	-	-	-	-	-
4D	Karen Ave	13th Ave to 14th Ave	-	-	-	-	-	-	-	-	-	-	-
4E	Karen Ave	14th Ave to Dillon Rd	-	-	-	-	-	-	-	-	-	-	-
5A	Indian Canyon Dr	SR-62 to Worsley Rd	15,700	1,313	67.8	743	65.3	70.3	729	65.2	75.2	72.3	A,B,C,D,E,F
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	14,700	1,230	67.5	695	65.0	70.0	683	65.0	75.0	72.0	A,B,C,D,F
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	14,800	1,238	67.5	701	65.1	70.1	688	65.0	75.0	72.0	A,B,C,D,F
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	15,400	1,288	67.7	729	65.2	70.2	715	65.2	75.2	72.2	A,B,C,D,F
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	21,000	1,757	69.1	993	66.6	71.6	975	66.5	76.5	73.5	A,B,C,D,F
5F	Indian Canyon Dr	13th Ave to 14th Ave	21,700	1,815	69.2	1,027	66.7	71.7	1,007	66.6	76.6	73.7	A,B,C,D,E,F
5G	Indian Canyon Dr	14th Ave to Dillon Rd	28,100	2,351	70.3	1,330	67.8	72.8	1,304	67.8	77.8	74.8	A,B,C,D,F
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	36,800	3,002	72.6	1,728	70.2	75.2	1,602	69.9	79.9	77.0	A,B,C,D,E,F
6A	Little Morongo Rd	North of Mission Lakes Blvd	2,000	138	55.3	96	53.7	58.7	43	50.2	60.2	58.2	A,B,C,D,E,F
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	12,100	834	63.1	579	61.5	66.5	260	58.0	68.0	66.0	A,B,C,D,F
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	13,800	951	63.7	660	62.1	67.1	295	58.6	68.6	66.6	A,B,C,D,F
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	14,800	1,020	64.0	707	62.4	67.4	317	58.9	68.9	66.9	A,B,C,D,F
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	19,300	1,614	68.7	914	66.2	71.2	896	66.1	76.1	73.2	A,B,C,D,E,F
6F	Little Morongo Rd	Dillon Rd to 20th Ave	12,400	1,037	66.8	587	64.3	69.3	576	64.2	74.2	71.3	A,B,C,D,F
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	4,900	339	59.2	235	57.6	62.6	106	54.2	64.2	62.1	A,B,C,D,E,F
7B	West Dr	Pierson Blvd to Hacienda Ave	5,600	387	59.8	268	58.2	63.2	120	54.7	64.7	62.6	A,B,C,D,F
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,600	387	59.8	268	58.2	63.2	120	54.7	64.7	62.6	A,B,C,D,F

8A	Palm Dr	North of Mission Lakes Blvd	300	21	47.2	15	45.8	50.8	8	42.7	52.7	50.4	A,B,C,D,F
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	22,000	1,516	65.7	1,051	64.1	69.1	470	60.6	70.6	68.6	A,B,C,D,F
8C	Palm Dr	Pierson Blvd to Hacienda Ave	24,000	1,652	65.2	1,145	63.6	68.6	513	60.1	70.1	68.1	A,B,C,D,E,F
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	32,400	2,231	66.5	1,548	64.9	69.9	692	61.4	71.4	69.4	A,B,C,D,F
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	44,900	3,756	72.3	2,124	69.8	74.8	2,084	69.7	79.7	76.8	A,B,C,D,E,F
8F	Palm Dr	Cam. Campenero to Cam. Aventura	43,000	3,507	73.3	2,019	70.9	75.9	1,871	70.6	80.6	77.7	A,B,C,D,E,F
8G	Palm Dr	Cam. Aventura to Dillon Rd	49,000	3,996	73.9	2,318	71.5	76.5	2,133	71.1	81.1	78.2	A,B,C,D,F
8H	Palm Dr	Dillon Rd to I-10 Freeway	43,700	3,564	73.4	2,067	71.0	76.0	1,901	70.6	80.6	77.7	A,B,C,D,F
9A	Bubbling Wells Rd	North of Dillon Rd	3,500	242	57.7	168	56.1	61.1	75	52.6	62.6	60.6	A,B,C,D,E,F
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	4,800	331	59.0	230	57.5	62.5	103	54.0	64.0	61.9	A,B,C,D,F
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	13,500	1,129	67.1	638	64.6	69.6	626	64.5	74.5	71.6	A,B,C,D,E,F
10B	Mountain View Rd	Dillon Rd to 20th Ave	24,500	2,049	69.7	1,159	67.2	72.2	1,137	67.1	77.1	74.2	A,B,C,D,F
10C	Mountain View Rd	20th Ave to Varner Rd	27,700	2,317	70.2	1,311	67.7	72.7	1,286	67.7	77.7	74.7	A,B,C,D,F
11A	Long Canyon Rd	North of Dillon Rd	4,300	297	58.6	206	57.0	62.0	92	53.5	63.5	61.5	A,B,C,D,E,F
12A	10th Ave	SR-62 to Worsley Rd	700	50	50.1	34	48.4	53.4	15	45.0	55.0	52.9	A,B,C,D,E,F
12B	10th Ave	Worsley Rd to Karen Rd	7,900	546	60.4	378	58.8	63.8	169	55.3	65.3	63.3	A,B,C,D,E,F
12C	10th Ave	Karen Rd to Indian Canyon Dr	11,400	786	62.0	546	60.4	65.4	244	56.9	66.9	64.9	A,B,C,D,F
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	10,500	724	61.6	501	60.0	65.0	224	56.5	66.5	64.5	A,B,C,D,F
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	7,600	524	60.2	364	58.6	63.6	163	55.2	65.2	63.1	A,B,C,D,F
12F	Mission Lakes Blvd	West Dr to Palm Dr	4,000	276	57.4	192	55.9	60.9	86	52.4	62.4	60.3	A,B,C,D,F
13A	Pierson Blvd	SR-62 to Worsley Rd	13,900	1,163	67.2	658	64.7	69.7	646	64.6	74.6	71.7	A,B,C,D,E,F
13B	Pierson Blvd	Worsley Rd to Diablo Rd	12,600	1,054	66.8	596	64.3	69.3	585	64.2	74.2	71.3	A,B,C,D,F
13C	Pierson Blvd	Diablo Rd to Karen Ave	12,200	1,021	66.6	578	64.2	69.2	566	64.1	74.1	71.1	A,B,C,D,F
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	11,000	920	66.2	521	63.7	68.7	511	63.6	73.6	70.7	A,B,C,D,F
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	10,000	836	65.8	474	63.3	68.3	464	63.2	73.2	70.3	A,B,C,D,E,F
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	13,600	1,138	67.1	644	64.7	69.7	631	64.6	74.6	71.6	A,B,C,D,F
13G	Pierson Blvd	Atlantic Ave to West Dr	8,900	745	65.3	421	62.8	67.8	414	62.7	72.7	69.8	A,B,C,D,F
13H	Pierson Blvd	West Dr to Palm Dr	8,900	745	65.3	421	62.8	67.8	414	62.7	72.7	69.8	A,B,C,D,F
13I	Pierson Blvd	Palm Dr to Miracle Hill	11,400	786	62.8	546	61.2	66.2	244	57.7	67.7	65.7	A,B,C,D,E,F
14A	13th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
14B	13th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	3,800	263	58.1	183	56.5	61.5	82	53.0	63.0	61.0	A,B,C,D,E,F
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	6,400	441	60.3	306	58.8	63.8	137	55.3	65.3	63.2	A,B,C,D,F
14E	Hacienda Ave	Cholla Dr to Palm Dr	11,600	799	62.9	555	61.3	66.3	249	57.9	67.9	65.8	A,B,C,D,F
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	10,500	724	62.5	501	60.9	65.9	224	57.4	67.4	65.4	A,B,C,D,F
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	10,500	724	62.5	501	60.9	65.9	224	57.4	67.4	65.4	A,B,C,D,F
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	10,500	724	62.5	501	60.9	65.9	224	57.4	67.4	65.4	A,B,C,D,F
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	10,500	724	62.5	501	60.9	65.9	224	57.4	67.4	65.4	A,B,C,D,F
14J	Hacienda Ave	East of Mountain View Rd	12,100	834	63.1	579	61.5	66.5	260	58.0	68.0	66.0	A,B,C,D,F

15A	14th Ave	SR-62 to Worsley Rd	-	-	-	-	-	-	-	-	-	-	-
15B	14th Ave	Worsley Rd to Diablo Rd	-	-	-	-	-	-	-	-	-	-	-
15C	14th Ave	Diablo Rd to Karen Ave	-	-	-	-	-	-	-	-	-	-	-
15D	14th Ave	Karen Ave to Indian Canyon Dr	-	-	-	-	-	-	-	-	-	-	-
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	3,500	242	57.7	168	56.1	61.1	75	52.6	62.6	60.6	A,B,C,D,E,F
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	14,600	1,006	63.9	698	62.3	67.3	312	58.8	68.8	66.8	A,B,C,D,F
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	14,600	1,006	63.9	698	62.3	67.3	312	58.8	68.8	66.8	A,B,C,D,F
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	15,500	1,069	64.1	740	62.5	67.5	332	59.1	69.1	67.0	A,B,C,D,F
15I	Two Bunch Palms Tr	West Dr to Palm Dr	15,500	1,069	64.1	740	62.5	67.5	332	59.1	69.1	67.0	A,B,C,D,F
15J	Two Bunch Palms Tr	East of Palm Dr	10,400	717	62.4	497	60.8	65.8	223	57.3	67.3	65.3	A,B,C,D,F
16A	Dillon Rd	SR-62 to Worsley Rd	15,100	1,263	67.6	715	65.1	70.1	701	65.0	75.0	72.1	A,B,C,D,E,F
16B	Dillon Rd	Worsley Rd to Diablo Rd	8,900	745	65.3	421	62.8	67.8	414	62.8	72.8	69.8	A,B,C,D,F
16C	Dillon Rd	Diablo Rd to Karen Ave	11,100	929	66.3	525	63.8	68.8	516	63.7	73.7	70.7	A,B,C,D,F
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	11,800	987	66.5	559	64.1	69.1	548	64.0	74.0	71.0	A,B,C,D,F
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	19,700	1,648	68.8	932	66.3	71.3	915	66.2	76.2	73.3	A,B,C,D,E,F
16F	Dillon Rd	Little Morongo Rd to Palm Dr	23,000	1,924	69.5	1,088	67.0	72.0	1,067	66.9	76.9	74.0	A,B,C,D,F
16G	Dillon Rd	Palm Dr to Mountain View Rd	19,300	1,614	68.7	914	66.2	71.2	896	66.2	76.2	73.2	A,B,C,D,F
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	14,200	1,188	67.3	673	64.8	69.8	660	64.7	74.7	71.8	A,B,C,D,E,F
16I	Dillon Rd	East of Long Canyon Rd	18,000	1,506	68.3	851	65.9	70.9	835	65.8	75.8	72.8	A,B,C,D,F
17A	20th Ave	Worsley Rd to Diablo Rd	8,100	558	61.3	387	59.7	64.7	174	56.2	66.2	64.2	A,B,C,D,E,F
17B	20th Ave	Diablo Rd to Karen Ave	4,800	331	59.0	230	57.5	62.5	103	54.0	64.0	61.9	A,B,C,D,F
17C	20th Ave	Karen Ave to Indian Canyon Dr	3,800	263	58.0	183	56.5	61.5	82	52.9	62.9	60.9	A,B,C,D,F
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	10,700	895	66.1	507	63.6	68.6	498	63.5	73.5	70.6	A,B,C,D,E,F
17E	20th Ave	Little Morongo Rd to Palm Dr	8,700	728	65.2	412	62.7	67.7	404	62.6	72.6	69.7	A,B,C,D,F
17F	20th Ave	Palm Dr to Mountain View Rd	10,100	845	65.8	478	63.4	68.4	469	63.3	73.3	70.3	A,B,C,D,F
18A	Varner Rd	Mihaylo Rd to Palm Dr	7,800	700	62.3	377	59.6	64.6	428	60.2	70.2	67.1	A,B,C,D,E,F
18B	Varner Rd	Palm Dr to Mountain View Rd	7,800	653	64.7	369	62.2	67.2	362	62.1	72.1	69.2	A,B,C,D,E,F
18C	Varner Rd	East of Mountain View Rd	29,200	2,443	70.4	1,382	68.0	73.0	1,356	67.9	77.9	74.9	A,B,C,D,F
19A	Miracle Hill Rd	Pierson Blvd to Hacienda Avenue	7,325	530	57.8	358	56.1	61.1	191	53.4	63.4	61.1	A,B,C,D,E,F
20A	SR 62	I10 to Indian Canyon Drive	33,480	2,663	73.2	2,179	72.3	77.3	2,179	72.3	82.3	79.1	A,B,C,D,E,F
21A	I-10	SR62 to Date Palm Drive	174,742	21,314	82.2	17,085	81.2	86.2	17,085	81.2	91.2	88.0	A,B,C,D,E,F

Table Notes:

A ADT from Appendix Table F.

B Equivalent hourly traffic calculated by multiplying vehicles per hour from Appendix Table G times Caltrans equivalent vehicle factors for medium and heavy duty trucks (Caltrans 2013a, see also Appendix Table XYZ).

C Evening and nighttime CNEL values equal to L_{eq} (h) values plus 5 and 10 dBA, respectively.

D 24-hour CNEL assumes 12 hours of daytime L_{eq} (h), plus 3 hours of evening CNEL value L_{eq} (h), plus 9 hours of nighttime CNEL value L_{eq} (h).

E Daytime roadway segment was modeled using TNM Version 2.5.

F Daytime, evening, and nighttime roadway segment L_{eq} (h) and/or CNEL values estimated using Caltrans equation 4.2 (Caltrans, 2013a).

Table References:

Caltrans 2013a. Technical Noise Supplement to the Traffic Analysis Protocol. Sacramento, CA. September 2013.

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Proposed General Plan 2040 Traffic Noise Contour Distances
Prepared by MIG, October 2019

TABLE I: Estimated Proposed General Plan Update 2040 Traffic Noise Contour Distances

ID	Road	Road Segment	2040 CNEL 100 Feet From Road Center	Estimated Distance to Noise Contour				
				75 CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	52.8	1	2	6	19	61
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	62.6	6	18	57	180	570
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	52.8	1	2	6	19	61
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	50.6	0	1	4	11	36
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	51.3	0	1	4	14	43
1F	Worsley Rd	Dillon Rd to 20th Ave	54.3	1	3	9	27	86
2A	Oasis Dr	13th Ave to 14th Ave	62.6	6	18	57	181	572
3A	Diablo Rd	14th Ave to Dillon Rd	61.3	4	13	42	134	425
4A	Karen Ave	Indian Canyon Dr to 10th Ave	63.2	7	21	66	208	658
4B	Karen Ave	10th Ave to Pierson Blvd	63.1	6	20	65	205	648
4C	Karen Ave	Pierson Blvd to 13th Ave	64.2	8	26	83	262	827
4D	Karen Ave	13th Ave to 14th Ave	64.8	10	30	96	304	961
4E	Karen Ave	14th Ave to Dillon Rd	64.7	9	29	93	293	926
5A	Indian Canyon Dr	SR-62 to Worsley Rd	67.1	16	51	161	510	1,613
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	66.8	15	48	151	478	1,511
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	64.9	10	31	99	313	989
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	65.6	11	36	115	363	1,148
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	73.5	70	223	704	2,227	7,043
5F	Indian Canyon Dr	13th Ave to 14th Ave	73.8	76	240	758	2,398	7,582
5G	Indian Canyon Dr	14th Ave to Dillon Rd	73.8	76	240	758	2,398	7,582
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	75.6	114	361	1,142	3,612	11,422
6A	Little Morongo Rd	North of Mission Lakes Blvd	56.5	1	4	14	44	141
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	66.7	15	46	147	465	1,469
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	65.9	12	39	124	392	1,240
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	65.9	12	39	122	387	1,222
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	67.2	17	53	167	527	1,665
6F	Little Morongo Rd	Dillon Rd to 20th Ave	64.5	9	28	90	284	897
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	57.8	2	6	19	60	189
7B	West Dr	Pierson Blvd to Hacienda Ave	57.8	2	6	19	60	189
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	59.0	3	8	25	79	250
8A	Palm Dr	North of Mission Lakes Blvd	47.8	0	1	2	6	19
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	66.5	14	44	140	444	1,405
8C	Palm Dr	Pierson Blvd to Hacienda Ave	68.1	20	64	203	642	2,030
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	69.3	27	84	267	845	2,672
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	76.3	134	424	1,342	4,244	13,420
8F	Palm Dr	Cam. Campenero to Cam. Aventura	77.5	176	557	1,761	5,570	17,614
8G	Palm Dr	Cam. Aventura to Dillon Rd	77.5	176	557	1,761	5,570	17,614
8H	Palm Dr	Dillon Rd to I-10 Freeway	78.0	199	629	1,989	6,291	19,893
9A	Bubbling Wells Rd	North of Dillon Rd	56.9	2	5	16	49	156
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	55.0	1	3	10	31	99

10A	Mountain View Rd	Hacienda Ave to Dillon Rd	65.2	10	33	104	329	1,042
10B	Mountain View Rd	Dillon Rd to 20th Ave	66.3	13	43	135	426	1,348
10C	Mountain View Rd	20th Ave to Varner Rd	67.5	18	56	176	556	1,758
11A	Long Canyon Rd	North of Dillon Rd	59.6	3	9	29	91	289
12A	10th Ave	SR-62 to Worsley Rd	59.3	3	9	27	85	269
12B	10th Ave	Worsley Rd to Karen Rd	60.1	3	10	33	103	327
12C	10th Ave	Karen Rd to Indian Canyon Dr	62.3	5	17	54	171	541
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	61.9	5	16	49	155	491
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	64.7	9	29	92	292	925
12F	Mission Lakes Blvd	West Dr to Palm Dr	61.0	4	12	40	125	395
13A	Pierson Blvd	SR-62 to Worsley Rd	71.1	41	128	406	1,282	4,055
13B	Pierson Blvd	Worsley Rd to Diablo Rd	71.6	46	146	462	1,462	4,622
13C	Pierson Blvd	Diablo Rd to Karen Ave	71.6	46	146	462	1,462	4,622
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	71.1	41	128	406	1,282	4,055
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	70.9	39	124	391	1,237	3,913
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	70.5	36	113	357	1,130	3,572
13G	Pierson Blvd	Atlantic Ave to West Dr	68.8	24	75	237	750	2,372
13H	Pierson Blvd	West Dr to Palm Dr	68.8	24	75	237	750	2,372
13I	Pierson Blvd	Palm Dr to Miracle Hill	65.3	11	34	107	338	1,069
14A	13th Ave	Diablo Rd to Karen Ave	60.9	4	12	39	122	387
14B	13th Ave	Karen Ave to Indian Canyon Dr	57.8	2	6	19	60	190
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	60.1	3	10	33	103	327
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	59.4	3	9	28	87	276
14E	Hacienda Ave	Cholla Dr to Palm Dr	62.7	6	18	58	185	584
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	64.5	9	28	88	280	885
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	64.5	9	28	88	280	885
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	64.5	9	28	88	280	885
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	64.5	9	28	88	280	885
14J	Hacienda Ave	East of Mountain View Rd	64.6	9	29	92	290	917
15A	14th Ave	SR-62 to Worsley Rd	51.3	0	1	4	14	43
15B	14th Ave	Worsley Rd to Diablo Rd	51.3	0	1	4	14	43
15C	14th Ave	Diablo Rd to Karen Ave	57.6	2	6	18	57	181
15D	14th Ave	Karen Ave to Indian Canyon Dr	59.8	3	10	30	96	305
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	61.9	5	16	49	156	492
15F	Two Bunch Palms Trail	Little Morongo Rd to Cabot Dr	66.3	14	43	136	429	1,356
15G	Two Bunch Palms Trail	Cabot Dr to Cholla Dr	66.3	14	43	136	429	1,356
15H	Two Bunch Palms Trail	Cholla Dr to West Dr	66.6	14	45	143	453	1,431
15I	Two Bunch Palms Trail	West Dr to Palm Dr	66.6	14	45	143	453	1,431
15J	Two Bunch Palms Trail	East of Palm Dr	66.5	14	45	142	450	1,423
16A	Dillon Rd	SR-62 to Worsley Rd	64.0	8	25	79	250	790
16B	Dillon Rd	Worsley Rd to Diablo Rd	63.9	8	24	77	244	772
16C	Dillon Rd	Diablo Rd to Karen Ave	65.1	10	32	102	323	1,023
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	65.7	12	37	118	372	1,177
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	67.7	19	59	187	591	1,870
16F	Dillon Rd	Little Morongo Rd to Palm Dr	67.8	19	61	191	605	1,914
16G	Dillon Rd	Palm Dr to Mountain View Rd	67.6	18	57	180	570	1,802
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	65.8	12	38	120	378	1,195
16I	Dillon Rd	East of Long Canyon Rd	66.9	16	49	156	494	1,562

17A	20th Ave	Worsley Rd to Diablo Rd	56.5	1	4	14	44	140
17B	20th Ave	Diablo Rd to Karen Ave	57.6	2	6	18	58	182
17C	20th Ave	Karen Ave to Indian Canyon Dr	64.9	10	31	98	308	975
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	64.4	9	27	86	273	864
17E	20th Ave	Little Morongo Rd to Palm Dr	63.8	8	24	75	238	753
17F	20th Ave	Palm Dr to Mountain View Rd	63.3	7	21	68	214	676
18A	Varner Rd	Mihaylo Rd to Palm Dr	66.7	15	47	147	465	1,471
18B	Varner Rd	Palm Dr to Mountain View Rd	70.9	39	122	387	1,224	3,871
18C	Varner Rd	East of Mountain View Rd	74.1	81	255	806	2,547	8,055
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	59.7	3	9	29	92	292
20	SR 62	I10 to Indian Canyon Drive	77.5	178	563	1,779	5,626	17,790
21	I-10	SR62 to Date Palm Drive	87.6	1,830	5,786	18,296	57,858	182,964

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Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Proposed General Plan Update 2040 TNM Information - Roadway Segment Data
Prepared by MIG, October 2019

TABLE J: Proposed General Plan Update 2040 TNM Roadway Segment Data

ID	Road	Road Segment	Road Segment Information							Notes
			Classification	Length (Miles)	Length (Feet)	Average Lanes	Average Width (Feet)	Posted Speed (MPH)	Average Daily Traffic (ADT)	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	Collector	2.00	10,560	2	62	45	700	A,B,C
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	Collector	1.10	5,808	2	62	45	6,700	A,B,C
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	Collector	0.58	3,062	2	62	45	700	A,B,C
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	Collector	0.56	2,957	2	62	45	400	A,B,C
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	Collector	1.50	7,920	2	62	45	500	A,B,C
1F	Worsley Rd	Dillon Rd to 20th Ave	Collector	0.80	4,224	2	62	45	1,000	A,B,C
2A	Oasis Dr	13th Ave to 14th Ave	Collector	0.50	2,640	2	52	45	4,600	A,B,C
3A	Diablo Rd	14th Ave to Dillon Rd	Collector	1.50	7,920	2	52	45	5,000	A,B,C
4A	Karen Ave	Indian Canyon Dr to 10th Ave	Collector	1.40	7,392	2	52	45	7,800	A,B,C
4B	Karen Ave	10th Ave to Pierson Blvd	Collector	1.00	5,280	2	52	45	7,700	A,B,C
4C	Karen Ave	Pierson Blvd to 13th Ave	Collector	0.50	2,640	2	52	45	9,800	A,B,C
4D	Karen Ave	13th Ave to 14th Ave	Collector	0.50	2,640	2	52	45	11,400	A,B,C
4E	Karen Ave	14th Ave to Dillon Rd	Collector	1.50	7,920	2	52	45	11,000	A,B,C
5A	Indian Canyon Dr	SR-62 to Worsley Rd	Secondary II	0.10	528	4	64	45	19,100	A,B,C
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	Secondary II	0.85	4,488	4	64	45	17,900	A,B,C
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	Secondary II	1.95	10,296	4	64	45	11,700	A,B,C
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	Secondary II	1.00	5,280	4	64	45	13,600	A,B,C
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	Primary II	0.50	2,640	4	86	55	24,800	A,B,C
5F	Indian Canyon Dr	13th Ave to 14th Ave	Primary II	0.50	2,640	4	86	55	26,700	A,B,C
5G	Indian Canyon Dr	14th Ave to Dillon Rd	Primary II	1.50	7,920	4	86	55	26,700	A,B,C
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	Primary I	1.30	6,864	6	94	55	39,200	A,B,C
6A	Little Morongo Rd	North of Mission Lakes Blvd	Local Collector	0.84	4,435	2	40	35	3,100	A,B,C
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	Secondary II	1.00	5,280	4	64	45	17,200	A,B,C
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	Secondary II	0.50	2,640	4	64	45	14,500	A,B,C
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	Secondary II	0.50	2,640	4	64	45	14,300	A,B,C
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	Secondary II	1.50	7,920	4	64	45	19,500	A,B,C
6F	Little Morongo Rd	Dillon Rd to 20th Ave	Secondary II	1.50	7,920	4	64	45	10,500	A,B,C
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	Local Collector	1.00	5,280	2	50	35	4,200	A,B,C
7B	West Dr	Pierson Blvd to Hacienda Ave	Local Collector	0.50	2,640	2	40	35	4,200	A,B,C
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	Local Collector	0.50	2,640	2	40	35	5,600	A,B,C

8A	Palm Dr	North of Mission Lakes Blvd	Local Collector	0.40	2,112	2	40	35	400	A,B,C	
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	Secondary II	1.00	5,280	4	74	45	16,500	A,B,C	
8C	Palm Dr	Pierson Blvd to Hacienda Ave	Secondary I	0.50	2,640	4	80	45	24,000	A,B,C	
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	Secondary I	0.50	2,640	4	80	45	31,600	A,B,C	
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	Primary I	0.50	2,640	6	102	55	46,400	A,B,C	
8F	Palm Dr	Cam. Campenero to Cam. Aventura	Urban Arterial	0.50	2,640	8	126	60	46,400	A,B,C	
8G	Palm Dr	Cam. Aventura to Dillon Rd	Urban Arterial	0.50	2,640	8	126	60	46,400	A,B,C	
8H	Palm Dr	Dillon Rd to I-10 Freeway	Urban Arterial	3.00	15,840	8	126	60	52,400	A,B,C	
9A	Bubbling Wells Rd	North of Dillon Rd	Local Collector	1.00	5,280	2	50	35	3,500	A,B,C	
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	Local Collector	1.50	7,920	2	50	35	2,200	A,B,C	
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	Secondary II	2.00	10,560	4	64	45	12,200	A,B,C	
10B	Mountain View Rd	Dillon Rd to 20th Ave	Secondary II	1.50	7,920	4	64	45	15,800	A,B,C	
10C	Mountain View Rd	20th Ave to Varner Rd	Secondary II	1.20	6,336	4	64	45	20,600	A,B,C	
11A	Long Canyon Rd	North of Dillon Rd	Collector	1.50	7,920	2	30	45	3,400	A,B,C	
12A	10th Ave	SR-62 to Worsley Rd	Collector	0.50	2,640	2	62	45	3,100	A,B,C	
12B	10th Ave	Worsley Rd to Karen Rd	Collector	0.85	4,488	2	62	45	3,800	A,B,C	
12C	10th Ave	Karen Rd to Indian Canyon Dr	Collector	1.00	5,280	2	62	45	6,300	A,B,C	
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	Collector	1.00	5,280	2	62	45	5,700	A,B,C	
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	Collector	0.75	3,960	2	62	45	10,800	A,B,C	
12F	Mission Lakes Blvd	West Dr to Palm Dr	Collector	1.00	5,280	2	62	45	4,600	A,B,C	
13A	Pierson Blvd	SR-62 to Worsley Rd	Primary II	0.25	1,320	4	94	55	14,200	A,B,C	
13B	Pierson Blvd	Worsley Rd to Diablo Rd	Primary II	0.35	1,848	4	94	55	16,200	A,B,C	
13C	Pierson Blvd	Diablo Rd to Karen Ave	Primary II	1.00	5,280	4	94	55	16,200	A,B,C	
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	Primary II	1.00	5,280	4	94	55	14,200	A,B,C	
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	Primary II	1.00	5,280	4	94	55	13,700	A,B,C	
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	Primary II	0.50	2,640	4	94	55	12,500	A,B,C	
13G	Pierson Blvd	Atlantic Ave to West Dr	Primary II	0.50	2,640	4	94	55	8,300	A,B,C	
13H	Pierson Blvd	West Dr to Palm Dr	Primary II	0.50	2,640	4	94	55	8,300	A,B,C	
13I	Pierson Blvd	Palm Dr to Miracle Hill	Secondary II	0.90	4,752	4	74	45	6,500	A,B,C	
14A	13th Ave	Diablo Rd to Karen Ave	Collector	1.00	5,280	2	62	45	4,500	A,B,C	
14B	13th Ave	Karen Ave to Indian Canyon Dr	Collector	1.00	5,280	2	62	45	2,200	A,B,C	
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	Collector	1.00	5,280	2	62	45	3,800	A,B,C	
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	Collector	0.75	3,960	2	62	45	3,200	A,B,C	
14E	Hacienda Ave	Cholla Dr to Palm Dr	Collector	0.75	3,960	2	62	45	6,800	A,B,C	
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	Collector	0.10	528	2	62	45	10,300	A,B,C	
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	Collector	0.40	2,112	2	62	45	10,300	A,B,C	
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	Collector	0.50	2,640	2	62	45	10,300	A,B,C	
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	Collector	0.50	2,640	2	62	45	10,300	A,B,C	
14J	Hacienda Ave	East of Mountain View Rd	Collector	1.10	5,808	2	62	45	10,700	A,B,C	

15A	14th Ave	SR-62 to Worsley Rd	Secondary II	0.10	528	4	74	45	500	A,B,C	
15B	14th Ave	Worsley Rd to Diablo Rd	Secondary II	0.75	3,960	4	74	45	500	A,B,C	
15C	14th Ave	Diablo Rd to Karen Ave	Secondary II	1.00	5,280	4	74	45	2,100	A,B,C	
15D	14th Ave	Karen Ave to Indian Canyon Dr	Secondary II	1.00	5,280	4	74	45	3,600	A,B,C	
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	Secondary II	1.00	5,280	4	74	45	5,800	A,B,C	
15F	Two Bunch Palms Tra	Little Morongo Rd to Cabot Dr	Secondary II	0.40	2,112	4	74	45	16,000	A,B,C	
15G	Two Bunch Palms Tra	Cabot Dr to Cholla Dr	Secondary II	0.40	2,112	4	74	45	16,000	A,B,C	
15H	Two Bunch Palms Tra	Cholla Dr to West Dr	Secondary II	0.25	1,320	4	74	45	16,900	A,B,C	
15I	Two Bunch Palms Tra	West Dr to Palm Dr	Secondary II	0.50	2,640	4	74	45	16,900	A,B,C	
15J	Two Bunch Palms Tra	East of Palm Dr	Secondary II	1.10	5,808	4	74	45	16,800	A,B,C	
16A	Dillon Rd	SR-62 to Worsley Rd	Secondary I	0.17	898	4	80	45	9,200	A,B,C	
16B	Dillon Rd	Worsley Rd to Diablo Rd	Secondary I	1.00	5,280	4	80	45	9,000	A,B,C	
16C	Dillon Rd	Diablo Rd to Karen Ave	Secondary I	1.00	5,280	4	80	45	11,900	A,B,C	
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	Secondary I	1.00	5,280	4	80	45	13,700	A,B,C	
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	Secondary I	1.00	5,280	4	80	45	21,800	A,B,C	
16F	Dillon Rd	Little Morongo Rd to Palm Dr	Secondary I	1.50	7,920	4	80	45	22,300	A,B,C	
16G	Dillon Rd	Palm Dr to Mountain View Rd	Secondary I	1.50	7,920	4	80	45	21,000	A,B,C	
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	Secondary I	1.00	5,280	4	80	45	13,900	A,B,C	
16I	Dillon Rd	East of Long Canyon Rd	Secondary I	2.00	10,560	4	80	45	18,200	A,B,C	
17A	20th Ave	Worsley Rd to Diablo Rd	Collector	1.10	5,808	2	52	45	1,600	A,B,C	
17B	20th Ave	Diablo Rd to Karen Ave	Collector	1.00	5,280	2	52	45	2,100	A,B,C	
17C	20th Ave	Karen Ave to Indian Canyon Dr	Collector	1.00	5,280	2	52	45	11,400	A,B,C	
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	Collector	1.00	5,280	2	52	45	10,100	A,B,C	
17E	20th Ave	Little Morongo Rd to Palm Dr	Collector	1.50	7,920	2	52	45	8,800	A,B,C	
17F	20th Ave	Palm Dr to Mountain View Rd	Collector	1.50	7,920	2	52	45	7,900	A,B,C	
18A	Varner Rd	Mihaylo Rd to Palm Dr	Secondary II	1.00	5,280	4	64	45	17,300	A,B,C	
18B	Varner Rd	Palm Dr to Mountain View Rd	Primary II	1.50	7,920	4	86	55	13,600	A,B,C	
18C	Varner Rd	East of Mountain View Rd	Primary II	0.50	2,640	4	86	55	28,300	A,B,C	
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	Local Collector	0.50	2,640	2	50	35	6,520	B,D	
20	SR 62	I10 to Indian Canyon Drive	Freeway	6.40	33,792	4	150	65	24,775	B,D	
21	I-10	SR62 to Date Palm Drive	Freeway	9.80	51,744	4	140	65	173,258	B,D	

Table Notes:

A Road segment classification obtained from Table 8 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019a).

B Posted speed information for different roadway classifications was obtained from the City's Engineering and Traffic Survey For Speed Limits (City of Desert Hot Springs 2018), if available, or Google Earth imagery. The posted speed limit was assumed to be 65 miles per hour (mph) for freeways, 55 mph for XYZ, 45 mph for XYZ, and 35 mph for XYZ.

C Average daily traffic (ADT) values obtained from Table 8 of the Desert Hot Springs General Plan Update Traffic Impact Analysis (Ganddini Group Inc. 2019a).

D ADT values obtained from autmobile and truck traffic count plots provided by Ganddini Group, Inc. (2019d and 2019e).

Table References:

City of Desert Hot Springs 2018. *Engineering and Traffic Survey for Speed Limits.* Prepared by Hartzog and Crabill, Inc., Tustin, CA. Desert Hot Springs, CA. November 2018.

Ganddini Group 2019a. *Desert Hot Springs General Plan Update Traffic Impact Analysis.* Santa Ana, CA. July 8, 2019.

Gandinni Group 2019d. *2040 Desert Hot Spring Proposed General Plan (Auto-Daily)* . April 2019.

Gandinni Group 2019e. *2040 Desert Hot Spring Proposed General Plan (Truck-Daily)* . April 2019.

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Proposed General Plan Update 2040 TNM Information - Vehicles Per Hour
Prepared by MIG, October 2019

TABLE K: Proposed General Plan Update 2040 TNM Vehicles Per Hour Data													
ID	Road	Road Segment	ADT	Vehicles Per Hour (Daytime)			Vehicle Per Hour (Evening)			Vehicles Per Hour (Night)			Notes
				Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	Auto	Med Truck	Heavy Truck	
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	700	43.0	0.6	0.3	31.8	0.1	0.1	8.0	0.7	0.3	A,B
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	6,700	411.0	5.1	2.0	303.8	0.9	0.9	76.0	6.7	2.7	A,B
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	700	43.0	0.6	0.3	31.8	0.1	0.1	8.0	0.7	0.3	A,B
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	400	24.6	0.3	0.2	18.2	0.1	0.1	4.6	0.4	0.2	A,B
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	500	30.7	0.4	0.2	22.7	0.1	0.1	5.7	0.5	0.2	A,B
1F	Worsley Rd	Dillon Rd to 20th Ave	1,000	61.4	0.8	0.3	45.4	0.2	0.2	11.4	1.0	0.4	A,B
2A	Oasis Dr	13th Ave to 14th Ave	4,600	282.2	3.5	1.4	208.6	0.7	0.7	52.2	4.6	1.8	A,B
3A	Diablo Rd	14th Ave to Dillon Rd	5,000	306.7	3.8	1.5	226.7	0.7	0.7	56.7	5.0	2.0	A,B
4A	Karen Ave	Indian Canyon Dr to 10th Ave	7,800	478.4	5.9	2.3	353.6	1.1	1.1	88.4	7.8	3.1	A,B
4B	Karen Ave	10th Ave to Pierson Blvd	7,700	472.3	5.8	2.3	349.1	1.1	1.1	87.3	7.7	3.0	A,B
4C	Karen Ave	Pierson Blvd to 13th Ave	9,800	601.1	7.4	2.9	444.3	1.4	1.4	111.1	9.8	3.9	A,B
4D	Karen Ave	13th Ave to 14th Ave	11,400	699.2	8.6	3.4	516.8	1.6	1.6	129.2	11.4	4.5	A,B
4E	Karen Ave	14th Ave to Dillon Rd	11,000	674.7	8.3	3.3	498.7	1.5	1.5	124.7	11.0	4.3	A,B
5A	Indian Canyon Dr	SR-62 to Worsley Rd	19,100	1,171.5	14.4	5.6	865.9	2.6	2.6	216.5	19.1	7.5	A,B
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	17,900	1,097.9	13.5	5.3	811.5	2.4	2.4	202.9	17.9	7.0	A,B
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	11,700	717.6	8.8	3.5	530.4	1.6	1.6	132.6	11.7	4.6	A,B
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	13,600	834.2	10.2	4.0	616.6	1.9	1.9	154.2	13.6	5.3	A,B
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	24,800	1,436.4	29.8	49.6	1,066.4	5.0	8.3	264.6	41.4	68.9	A,B
5F	Indian Canyon Dr	13th Ave to 14th Ave	26,700	1,546.4	32.1	53.4	1,148.1	5.4	8.9	284.8	44.5	74.2	A,B
5G	Indian Canyon Dr	14th Ave to Dillon Rd	26,700	1,546.4	32.1	53.4	1,148.1	5.4	8.9	284.8	44.5	74.2	A,B
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	39,200	2,270.4	47.1	78.4	1,685.6	7.9	13.1	418.2	65.4	108.9	A,B
6A	Little Morongo Rd	North of Mission Lakes Blvd	3,100	190.2	2.4	1.0	140.6	0.5	0.5	35.2	3.1	1.3	A,B
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	17,200	1,055.0	12.9	5.1	779.8	2.3	2.3	195.0	17.2	6.7	A,B
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	14,500	889.4	10.9	4.3	657.4	2.0	2.0	164.4	14.5	5.7	A,B
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	14,300	877.1	10.8	4.2	648.3	2.0	2.0	162.1	14.3	5.6	A,B
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	19,500	1,196.0	14.7	5.7	884.0	2.6	2.6	221.0	19.5	7.6	A,B
6F	Little Morongo Rd	Dillon Rd to 20th Ave	10,500	644.0	7.9	3.1	476.0	1.4	1.4	119.0	10.5	4.1	A,B
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	4,200	257.6	3.2	1.3	190.4	0.6	0.6	47.6	4.2	1.7	A,B
7B	West Dr	Pierson Blvd to Hacienda Ave	4,200	257.6	3.2	1.3	190.4	0.6	0.6	47.6	4.2	1.7	A,B
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,600	343.5	4.2	1.7	253.9	0.8	0.8	63.5	5.6	2.2	A,B

8A	Palm Dr	North of Mission Lakes Blvd	400	24.6	0.3	0.2	18.2	0.1	0.1	4.6	0.4	0.2	A,B
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	16,500	1,012.0	12.4	4.9	748.0	2.2	2.2	187.0	16.5	6.5	A,B
8C	Palm Dr	Pierson Blvd to Hacienda Ave	24,000	1,472.0	18.0	7.0	1,088.0	3.2	3.2	272.0	24.0	9.4	A,B
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	31,600	1,938.2	23.7	9.3	1,432.6	4.3	4.3	358.2	31.6	12.3	A,B
8E	Palm Dr	Two Bunch Palms Trail to Cam. Campanero	46,400	2,687.4	55.7	92.8	1,995.2	9.3	15.5	495.0	77.4	128.9	A,B
8F	Palm Dr	Cam. Campenero to Cam. Aventura	46,400	2,687.4	55.7	92.8	1,995.2	9.3	15.5	495.0	77.4	128.9	A,B
8G	Palm Dr	Cam. Aventura to Dillon Rd	46,400	2,687.4	55.7	92.8	1,995.2	9.3	15.5	495.0	77.4	128.9	A,B
8H	Palm Dr	Dillon Rd to I-10 Freeway	52,400	3,034.9	62.9	104.8	2,253.2	10.5	17.5	559.0	87.4	145.6	A,B
9A	Bubbling Wells Rd	North of Dillon Rd	3,500	214.7	2.7	1.1	158.7	0.5	0.5	39.7	3.5	1.4	A,B
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	2,200	135.0	1.7	0.7	99.8	0.3	0.3	25.0	2.2	0.9	A,B
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	12,200	748.3	9.2	3.6	553.1	1.7	1.7	138.3	12.2	4.8	A,B
10B	Mountain View Rd	Dillon Rd to 20th Ave	15,800	969.1	11.9	4.7	716.3	2.2	2.2	179.1	15.8	6.2	A,B
10C	Mountain View Rd	20th Ave to Varner Rd	20,600	1,263.5	15.5	6.1	933.9	2.8	2.8	233.5	20.6	8.1	A,B
11A	Long Canyon Rd	North of Dillon Rd	3,400	208.6	2.6	1.0	154.2	0.5	0.5	38.6	3.4	1.4	A,B
12A	10th Ave	SR-62 to Worsley Rd	3,100	190.2	2.4	1.0	140.6	0.5	0.5	35.2	3.1	1.3	A,B
12B	10th Ave	Worsley Rd to Karen Rd	3,800	233.1	2.9	1.2	172.3	0.6	0.6	43.1	3.8	1.5	A,B
12C	10th Ave	Karen Rd to Indian Canyon Dr	6,300	386.4	4.8	1.9	285.6	0.9	0.9	71.4	6.3	2.5	A,B
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	5,700	349.6	4.3	1.7	258.4	0.8	0.8	64.6	5.7	2.3	A,B
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	10,800	662.4	8.1	3.2	489.6	1.5	1.5	122.4	10.8	4.2	A,B
12F	Mission Lakes Blvd	West Dr to Palm Dr	4,600	282.2	3.5	1.4	208.6	0.7	0.7	52.2	4.6	1.8	A,B
13A	Pierson Blvd	SR-62 to Worsley Rd	14,200	822.5	17.1	28.4	610.6	2.9	4.8	151.5	23.7	39.5	A,B
13B	Pierson Blvd	Worsley Rd to Diablo Rd	16,200	938.3	19.5	32.4	696.6	3.3	5.4	172.8	27.0	45.0	A,B
13C	Pierson Blvd	Diablo Rd to Karen Ave	16,200	938.3	19.5	32.4	696.6	3.3	5.4	172.8	27.0	45.0	A,B
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	14,200	822.5	17.1	28.4	610.6	2.9	4.8	151.5	23.7	39.5	A,B
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	13,700	793.5	16.5	27.4	589.1	2.8	4.6	146.2	22.9	38.1	A,B
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	12,500	724.0	15.0	25.0	537.5	2.5	4.2	133.4	20.9	34.8	A,B
13G	Pierson Blvd	Atlantic Ave to West Dr	8,300	480.8	10.0	16.6	356.9	1.7	2.8	88.6	13.9	23.1	A,B
13H	Pierson Blvd	West Dr to Palm Dr	8,300	480.8	10.0	16.6	356.9	1.7	2.8	88.6	13.9	23.1	A,B
13I	Pierson Blvd	Palm Dr to Miracle Hill	6,500	398.7	4.9	1.9	294.7	0.9	0.9	73.7	6.5	2.6	A,B
14A	13th Ave	Diablo Rd to Karen Ave	4,500	276.0	3.4	1.4	204.0	0.6	0.6	51.0	4.5	1.8	A,B
14B	13th Ave	Karen Ave to Indian Canyon Dr	2,200	135.0	1.7	0.7	99.8	0.3	0.3	25.0	2.2	0.9	A,B
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	3,800	233.1	2.9	1.2	172.3	0.6	0.6	43.1	3.8	1.5	A,B
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	3,200	196.3	2.4	1.0	145.1	0.5	0.5	36.3	3.2	1.3	A,B
14E	Hacienda Ave	Cholla Dr to Palm Dr	6,800	417.1	5.1	2.0	308.3	1.0	1.0	77.1	6.8	2.7	A,B
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	10,300	631.8	7.8	3.1	467.0	1.4	1.4	116.8	10.3	4.1	A,B
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	10,300	631.8	7.8	3.1	467.0	1.4	1.4	116.8	10.3	4.1	A,B
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	10,300	631.8	7.8	3.1	467.0	1.4	1.4	116.8	10.3	4.1	A,B
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	10,300	631.8	7.8	3.1	467.0	1.4	1.4	116.8	10.3	4.1	A,B
14J	Hacienda Ave	East of Mountain View Rd	10,700	656.3	8.1	3.2	485.1	1.5	1.5	121.3	10.7	4.2	A,B
15A	14th Ave	SR-62 to Worsley Rd	500	30.7	0.4	0.2	22.7	0.1	0.1	5.7	0.5	0.2	A,B
15B	14th Ave	Worsley Rd to Diablo Rd	500	30.7	0.4	0.2	22.7	0.1	0.1	5.7	0.5	0.2	A,B
15C	14th Ave	Diablo Rd to Karen Ave	2,100	128.8	1.6	0.7	95.2	0.3	0.3	23.8	2.1	0.9	A,B
15D	14th Ave	Karen Ave to Indian Canyon Dr	3,600	220.8	2.7	1.1	163.2	0.5	0.5	40.8	3.6	1.4	A,B
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	5,800	355.8	4.4	1.7	263.0	0.8	0.8	65.8	5.8	2.3	A,B
15F	Two Bunch Palms Tra	Little Morongo Rd to Cabot Dr	16,000	981.4	12.0	4.7	725.4	2.2	2.2	181.4	16.0	6.3	A,B
15G	Two Bunch Palms Tra	Cabot Dr to Cholla Dr	16,000	981.4	12.0	4.7	725.4	2.2	2.2	181.4	16.0	6.3	A,B
15H	Two Bunch Palms Tra	Cholla Dr to West Dr	16,900	1,036.6	12.7	5.0	766.2	2.3	2.3	191.6	16.9	6.6	A,B

15I	Two Bunch Palms Tra	West Dr to Palm Dr	16,900	1,036.6	12.7	5.0	766.2	2.3	2.3	191.6	16.9	6.6	A,B
15J	Two Bunch Palms Tra	East of Palm Dr	16,800	1,030.4	12.6	4.9	761.6	2.3	2.3	190.4	16.8	6.6	A,B
16A	Dillon Rd	SR-62 to Worsley Rd	9,200	564.3	6.9	2.7	417.1	1.3	1.3	104.3	9.2	3.6	A,B
16B	Dillon Rd	Worsley Rd to Diablo Rd	9,000	552.0	6.8	2.7	408.0	1.2	1.2	102.0	9.0	3.5	A,B
16C	Dillon Rd	Diablo Rd to Karen Ave	11,900	729.9	9.0	3.5	539.5	1.6	1.6	134.9	11.9	4.7	A,B
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	13,700	840.3	10.3	4.0	621.1	1.9	1.9	155.3	13.7	5.4	A,B
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	21,800	1,337.1	16.4	6.4	988.3	3.0	3.0	247.1	21.8	8.5	A,B
16F	Dillon Rd	Little Morongo Rd to Palm Dr	22,300	1,367.8	16.8	6.6	1,011.0	3.0	3.0	252.8	22.3	8.7	A,B
16G	Dillon Rd	Palm Dr to Mountain View Rd	21,000	1,288.0	15.8	6.2	952.0	2.8	2.8	238.0	21.0	8.2	A,B
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	13,900	852.6	10.5	4.1	630.2	1.9	1.9	157.6	13.9	5.5	A,B
16I	Dillon Rd	East of Long Canyon Rd	18,200	1,116.3	13.7	5.4	825.1	2.5	2.5	206.3	18.2	7.1	A,B
17A	20th Ave	Worsley Rd to Diablo Rd	1,600	98.2	1.2	0.5	72.6	0.3	0.3	18.2	1.6	0.7	A,B
17B	20th Ave	Diablo Rd to Karen Ave	2,100	128.8	1.6	0.7	95.2	0.3	0.3	23.8	2.1	0.9	A,B
17C	20th Ave	Karen Ave to Indian Canyon Dr	11,400	699.2	8.6	3.4	516.8	1.6	1.6	129.2	11.4	4.5	A,B
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	10,100	619.5	7.6	3.0	457.9	1.4	1.4	114.5	10.1	4.0	A,B
17E	20th Ave	Little Morongo Rd to Palm Dr	8,800	539.8	6.6	2.6	399.0	1.2	1.2	99.8	8.8	3.5	A,B
17F	20th Ave	Palm Dr to Mountain View Rd	7,900	484.6	6.0	2.4	358.2	1.1	1.1	89.6	7.9	3.1	A,B
18A	Varner Rd	Mihaylo Rd to Palm Dr	17,300	1,061.1	13.0	5.1	784.3	2.4	2.4	196.1	17.3	6.8	A,B
18B	Varner Rd	Palm Dr to Mountain View Rd	13,600	787.7	16.4	27.2	584.8	2.8	4.6	145.1	22.7	37.8	A,B
18C	Varner Rd	East of Mountain View Rd	28,300	1,639.1	34.0	56.6	1,216.9	5.7	9.5	301.9	47.2	78.7	A,B
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	6,520	399.9	4.9	2.0	295.6	0.9	0.9	73.9	6.6	2.6	A,B
20	SR 62	I10 to Indian Canyon Drive	24,775	978.8	74.8	82.0	801.0	61.2	67.1	801.0	61.2	67.1	A,B
21	I-10	SR62 to Date Palm Drive	173,258	6,016.9	492.9	1,504.6	4,822.9	395.1	1,206.0	4,822.9	395.1	1,206.0	A,B

Table Notes:

A ADT from Appendix Table J.

B Vehicles per hour calculated by multiplying the roadway segment ADT by Riverside County daytime, evening, and nighttime traffix mix percentages for the given roadway classification (see Appendix Table N).

Desert Hot Springs General Plan Update
Desert Hot Springs, CA
Appendix: Proposed General Plan Update 2040 Traffic Noise CNEL Calculations
Prepared by MIG, September 2019

TABLE L: Proposed General Plan Update 2040 Traffic Noise CNEL Calculations

ID	Road	Road Segment	ADT	Daytime		Evening			Nighttime			24-Hour CNEL	Notes
				Equivalent Hourly Traffic	Leq(h)	Equivalent Hourly Traffic	Leq(h)	CNEL Value	Equivalent Hourly Traffic	Leq(h)	CNEL Value		
1A	Worsley Rd	Indian Canyon Dr to Mission Lakes Blvd	700	50	50.0	34	48.3	53.3	15	44.9	54.9	52.8	A,B,C,D,E,F
1B	Worsley Rd	Mission Lakes Blvd to Pierson Blvd	6,700	462	59.7	320	58.1	63.1	144	54.6	64.6	62.6	A,B,C,D,F
1C	Worsley Rd	Pierson Blvd to Hacienda Blvd	700	50	50.0	34	48.3	53.3	15	44.9	54.9	52.8	A,B,C,D,F
1D	Worsley Rd	Hacienda Blvd to Two Bunch Palms Trail	400	29	47.6	20	46.0	51.0	9	42.7	52.7	50.6	A,B,C,D,F
1E	Worsley Rd	Two Bunch Palms Trail to Dillon Rd	500	35	48.5	25	46.9	51.9	11	43.4	53.4	51.3	A,B,C,D,F
1F	Worsley Rd	Dillon Rd to 20th Ave	1,000	69	51.4	49	49.9	54.9	22	46.4	56.4	54.3	A,B,C,D,F
2A	Oasis Dr	13th Ave to 14th Ave	4,600	318	59.7	221	58.1	63.1	99	54.6	64.6	62.6	A,B,C,D,E,F
3A	Diablo Rd	14th Ave to Dillon Rd	5,000	345	58.4	239	56.8	61.8	108	53.3	63.3	61.3	A,B,C,D,E,F
4A	Karen Ave	Indian Canyon Dr to 10th Ave	7,800	538	60.3	373	58.7	63.7	167	55.2	65.2	63.2	A,B,C,D,E,F
4B	Karen Ave	10th Ave to Pierson Blvd	7,700	531	60.2	369	58.7	63.7	165	55.2	65.2	63.1	A,B,C,D,F
4C	Karen Ave	Pierson Blvd to 13th Ave	9,800	676	61.3	469	59.7	64.7	211	56.2	66.2	64.2	A,B,C,D,F
4D	Karen Ave	13th Ave to 14th Ave	11,400	786	62.0	546	60.4	65.4	244	56.9	66.9	64.8	A,B,C,D,F
4E	Karen Ave	14th Ave to Dillon Rd	11,000	759	61.8	526	60.2	65.2	235	56.7	66.7	64.7	A,B,C,D,F
5A	Indian Canyon Dr	SR-62 to Worsley Rd	19,100	1,316	64.2	913	62.6	67.6	409	59.1	69.1	67.1	A,B,C,D,E,F
5B	Indian Canyon Dr	Worsley Rd to Karen Ave	17,900	1,234	63.9	855	62.3	67.3	383	58.8	68.8	66.8	A,B,C,D,F
5C	Indian Canyon Dr	Karen Ave to Mission Lakes Blvd	11,700	807	62.1	559	60.5	65.5	251	57.0	67.0	64.9	A,B,C,D,F
5D	Indian Canyon Dr	Mission Lakes Blvd to Pierson Blvd	13,600	937	62.7	651	61.1	66.1	291	57.6	67.6	65.6	A,B,C,D,F
5E	Indian Canyon Dr	Pierson Blvd to 13th Ave	24,800	2,075	69.0	1,173	66.5	71.5	1,151	66.4	76.4	73.5	A,B,C,D,E,F
5F	Indian Canyon Dr	13th Ave to 14th Ave	26,700	2,233	69.3	1,263	66.8	71.8	1,239	66.8	76.8	73.8	A,B,C,D,F
5G	Indian Canyon Dr	14th Ave to Dillon Rd	26,700	2,233	69.3	1,263	66.8	71.8	1,239	66.8	76.8	73.8	A,B,C,D,F
5H	Indian Canyon Dr	Dillon Rd to 20th Ave	39,200	3,279	71.1	1,854	68.6	73.6	1,819	68.5	78.5	75.6	A,B,C,D,E,F
6A	Little Morongo Rd	North of Mission Lakes Blvd	3,100	226	53.2	154	51.5	56.5	82	48.8	58.8	56.5	A,B,C,D,E,F
6B	Little Morongo Rd	Mission Lakes Blvd to Pierson Blvd	17,200	1,185	63.8	821	62.2	67.2	368	58.7	68.7	66.7	A,B,C,D,E,F
6C	Little Morongo Rd	Pierson Blvd to Hacienda Ave	14,500	999	63.1	693	61.5	66.5	311	58.0	68.0	65.9	A,B,C,D,F
6D	Little Morongo Rd	Hacienda Ave to Two Bunch Palms Trail	14,300	985	63.0	684	61.4	66.4	306	57.9	67.9	65.9	A,B,C,D,F
6E	Little Morongo Rd	Two Bunch Palms Trail to Dillon Rd	19,500	1,343	64.3	931	62.7	67.7	417	59.3	69.3	67.2	A,B,C,D,F
6F	Little Morongo Rd	Dillon Rd to 20th Ave	10,500	724	61.7	501	60.1	65.1	224	56.6	66.6	64.5	A,B,C,D,F
7A	West Dr	Mission Lakes Blvd to Pierson Blvd	4,200	305	54.5	206	52.8	57.8	110	50.1	60.1	57.8	A,B,C,D,E,F
7B	West Dr	Pierson Blvd to Hacienda Ave	4,200	305	54.5	206	52.8	57.8	110	50.1	60.1	57.8	A,B,C,D,E,F
7C	West Dr	Hacienda Ave to Two Bunch Palms Trail	5,600	406	55.7	275	54.0	59.0	145	51.3	61.3	59.0	A,B,C,D,F

8A	Palm Dr	North of Mission Lakes Blvd	400	31	44.5	21	42.9	47.9	11	40.2	50.2	47.8	A,B,C,D,F
8B	Palm Dr	Mission Lakes Blvd to Pierson Blvd	16,500	1,137	63.6	787	62.0	67.0	353	58.5	68.5	66.5	A,B,C,D,E,F
8C	Palm Dr	Pierson Blvd to Hacienda Ave	24,000	1,652	65.2	1,145	63.6	68.6	513	60.1	70.1	68.1	A,B,C,D,E,F
8D	Palm Dr	Hacienda Ave to Two Bunch Palms Trail	31,600	2,177	66.4	1,510	64.8	69.8	675	61.3	71.3	69.3	A,B,C,D,F
8E	Palm Dr	Two Bunch Palms Tr to Cam. Campanero	46,400	3,881	71.8	2,195	69.3	74.3	2,153	69.2	79.2	76.3	A,B,C,D,E,F
8F	Palm Dr	Cam. Campenero to Cam. Aventura	46,400	3,784	73.1	2,179	70.7	75.7	2,019	70.4	80.4	77.5	A,B,C,D,E,F
8G	Palm Dr	Cam. Aventura to Dillon Rd	46,400	3,784	73.1	2,179	70.7	75.7	2,019	70.4	80.4	77.5	A,B,C,D,F
8H	Palm Dr	Dillon Rd to I-10 Freeway	52,400	4,274	73.6	2,460	71.2	76.2	2,280	70.9	80.9	78.0	A,B,C,D,F
9A	Bubbling Wells Rd	North of Dillon Rd	3,500	255	53.7	172	52.0	57.0	91	49.2	59.2	56.9	A,B,C,D,E,F
9B	Bubbling Wells Rd	Dillon Rd to 20th Ave	2,200	161	51.7	108	50.0	55.0	58	47.3	57.3	55.0	A,B,C,D,F
10A	Mountain View Rd	Hacienda Ave to Dillon Rd	12,200	841	62.3	584	60.7	65.7	261	57.2	67.2	65.2	A,B,C,D,E,F
10B	Mountain View Rd	Dillon Rd to 20th Ave	15,800	1,089	63.4	756	61.8	66.8	338	58.3	68.3	66.3	A,B,C,D,F
10C	Mountain View Rd	20th Ave to Varner Rd	20,600	1,420	64.6	984	63.0	68.0	441	59.5	69.5	67.5	A,B,C,D,F
11A	Long Canyon Rd	North of Dillon Rd	3,400	235	56.7	163	55.1	60.1	74	51.7	61.7	59.6	A,B,C,D,E,F
12A	10th Ave	SR-62 to Worsley Rd	3,100	215	56.4	150	54.8	59.8	68	51.4	61.4	59.3	A,B,C,D,E,F
12B	10th Ave	Worsley Rd to Karen Rd	3,800	263	57.3	183	55.7	60.7	82	52.2	62.2	60.1	A,B,C,D,F
12C	10th Ave	Karen Rd to Indian Canyon Dr	6,300	435	59.5	302	57.9	62.9	135	54.4	64.4	62.3	A,B,C,D,F
12D	Mission Lakes Blvd	Indian Canyon Dr to Little Morongo Rd	5,700	393	59.0	273	57.4	62.4	123	54.0	64.0	61.9	A,B,C,D,F
12E	Mission Lakes Blvd	Little Morongo Rd to West Dr	10,800	744	61.8	517	60.2	65.2	231	56.7	66.7	64.7	A,B,C,D,F
12F	Mission Lakes Blvd	West Dr to Palm Dr	4,600	318	58.1	221	56.5	61.5	99	53.0	63.0	61.0	A,B,C,D,F
13A	Pierson Blvd	SR-62 to Worsley Rd	14,200	1,188	66.6	673	64.1	69.1	660	64.0	74.0	71.1	A,B,C,D,E,F
13B	Pierson Blvd	Worsley Rd to Diablo Rd	16,200	1,355	67.2	766	64.7	69.7	752	64.6	74.6	71.6	A,B,C,D,F
13C	Pierson Blvd	Diablo Rd to Karen Ave	16,200	1,355	67.2	766	64.7	69.7	752	64.6	74.6	71.6	A,B,C,D,F
13D	Pierson Blvd	Karen Ave to Indian Canyon Dr	14,200	1,188	66.6	673	64.1	69.1	660	64.0	74.0	71.1	A,B,C,D,F
13E	Pierson Blvd	Indian Canyon Dr to Little Morongo Rd	13,700	1,146	66.4	649	64.0	69.0	636	63.9	73.9	70.9	A,B,C,D,F
13F	Pierson Blvd	Little Morongo Rd to Atlantic Ave	12,500	1,046	66.0	592	63.6	68.6	581	63.5	73.5	70.5	A,B,C,D,F
13G	Pierson Blvd	Atlantic Ave to West Dr	8,300	695	64.3	393	61.8	66.8	386	61.7	71.7	68.8	A,B,C,D,F
13H	Pierson Blvd	West Dr to Palm Dr	8,300	695	64.3	393	61.8	66.8	386	61.7	71.7	68.8	A,B,C,D,F
13I	Pierson Blvd	Palm Dr to Miracle Hill	6,500	448	62.4	311	60.8	65.8	140	57.3	67.3	65.3	A,B,C,D,E,F
14A	13th Ave	Diablo Rd to Karen Ave	4,500	311	58	215	56.4	61.4	97	52.9	62.9	60.9	A,B,C,D,E,F
14B	13th Ave	Karen Ave to Indian Canyon Dr	2,200	153	54.9	105	53.3	58.3	48	49.9	59.9	57.8	A,B,C,D,F
14C	13th Ave	Indian Canyon Dr to Little Morongo Rd	3,800	263	57.3	183	55.7	60.7	82	52.2	62.2	60.1	A,B,C,D,F
14D	Hacienda Ave	Little Morongo Rd to Cholla Dr	3,200	221	56.5	154	54.9	59.9	69	51.5	61.5	59.4	A,B,C,D,F
14E	Hacienda Ave	Cholla Dr to Palm Dr	6,800	468	59.8	326	58.2	63.2	146	54.7	64.7	62.7	A,B,C,D,F
14F	Hacienda Ave	Palm Dr to Ocotillo Rd	10,300	711	61.6	492	60.0	65.0	221	56.5	66.5	64.5	A,B,C,D,F
14G	Hacienda Ave	Ocotillo Rd to Verbena Dr	10,300	711	61.6	492	60.0	65.0	221	56.5	66.5	64.5	A,B,C,D,F
14H	Hacienda Ave	Verbena Dr to Miracle Hill Rd	10,300	711	61.6	492	60.0	65.0	221	56.5	66.5	64.5	A,B,C,D,F
14I	Hacienda Ave	Miracle Hill Rd to Mountain View Dr	10,300	711	61.6	492	60.0	65.0	221	56.5	66.5	64.5	A,B,C,D,F
14J	Hacienda Ave	East of Mountain View Rd	10,700	738	61.8	512	60.2	65.2	229	56.7	66.7	64.6	A,B,C,D,F

15A	14th Ave	SR-62 to Worsley Rd	500	35	49	25	46.9	51.9	11	43.4	53.4	51.3	A,B,C,D,E,F
15B	14th Ave	Worsley Rd to Diablo Rd	500	35	48.5	25	46.9	51.9	11	43.4	53.4	51.3	A,B,C,D,F
15C	14th Ave	Diablo Rd to Karen Ave	2,100	146	54.7	101	53.0	58.0	46	49.6	59.6	57.6	A,B,C,D,F
15D	14th Ave	Karen Ave to Indian Canyon Dr	3,600	249	57.0	172	55.4	60.4	77	51.9	61.9	59.8	A,B,C,D,F
15E	14th Ave	Indian Canyon Dr to Little Morongo Rd	5,800	400	59.0	277	57.5	62.5	125	54.0	64.0	61.9	A,B,C,D,F
15F	Two Bunch Palms Tr	Little Morongo Rd to Cabot Dr	16,000	1,102	63.4	765	61.9	66.9	343	58.4	68.4	66.3	A,B,C,D,F
15G	Two Bunch Palms Tr	Cabot Dr to Cholla Dr	16,000	1,102	63.4	765	61.9	66.9	343	58.4	68.4	66.3	A,B,C,D,F
15H	Two Bunch Palms Tr	Cholla Dr to West Dr	16,900	1,165	63.7	807	62.1	67.1	361	58.6	68.6	66.6	A,B,C,D,F
15I	Two Bunch Palms Tr	West Dr to Palm Dr	16,900	1,165	63.7	807	62.1	67.1	361	58.6	68.6	66.6	A,B,C,D,F
15J	Two Bunch Palms Tr	East of Palm Dr	16,800	1,157	63.7	803	62.1	67.1	360	58.6	68.6	66.5	A,B,C,D,F
16A	Dillon Rd	SR-62 to Worsley Rd	9,200	634	61.1	440	59.5	64.5	197	56.0	66.0	64.0	A,B,C,D,E,F
16B	Dillon Rd	Worsley Rd to Diablo Rd	9,000	621	61.0	430	59.4	64.4	192	55.9	65.9	63.9	A,B,C,D,F
16C	Dillon Rd	Diablo Rd to Karen Ave	11,900	820	62.2	568	60.6	65.6	255	57.1	67.1	65.1	A,B,C,D,F
16D	Dillon Rd	Karen Ave to Indian Canyon Dr	13,700	943	62.8	655	61.2	66.2	294	57.8	67.8	65.7	A,B,C,D,F
16E	Dillon Rd	Indian Canyon Dr to Little Morongo Rd	21,800	1,502	64.8	1,042	63.3	68.3	466	59.8	69.8	67.7	A,B,C,D,F
16F	Dillon Rd	Little Morongo Rd to Palm Dr	22,300	1,537	64.9	1,065	63.4	68.4	477	59.9	69.9	67.8	A,B,C,D,F
16G	Dillon Rd	Palm Dr to Mountain View Rd	21,000	1,447	64.7	1,002	63.1	68.1	449	59.6	69.6	67.6	A,B,C,D,F
16H	Dillon Rd	Mountain View Rd to Long Canyon Rd	13,900	958	62.9	664	61.3	66.3	298	57.8	67.8	65.8	A,B,C,D,F
16I	Dillon Rd	East of Long Canyon Rd	18,200	1,255	64.1	870	62.5	67.5	389	59.0	69.0	66.9	A,B,C,D,F
17A	20th Ave	Worsley Rd to Diablo Rd	1,600	111	53.5	78	52.0	57.0	35	48.5	58.5	56.5	A,B,C,D,E,F
17B	20th Ave	Diablo Rd to Karen Ave	2,100	146	54.7	101	53.1	58.1	46	49.7	59.7	57.6	A,B,C,D,F
17C	20th Ave	Karen Ave to Indian Canyon Dr	11,400	786	62.0	546	60.4	65.4	244	56.9	66.9	64.9	A,B,C,D,F
17D	20th Ave	Indian Canyon Dr to Little Morongo Rd	10,100	696	61.5	483	59.9	64.9	217	56.4	66.4	64.4	A,B,C,D,F
17E	20th Ave	Little Morongo Rd to Palm Dr	8,800	606	60.9	421	59.3	64.3	189	55.8	65.8	63.8	A,B,C,D,F
17F	20th Ave	Palm Dr to Mountain View Rd	7,900	546	60.4	378	58.8	63.8	169	55.3	65.3	63.3	A,B,C,D,F
18A	Varner Rd	Mihaylo Rd to Palm Dr	17,300	1,192	63.8	827	62.2	67.2	370	58.7	68.7	66.7	A,B,C,D,E,F
18B	Varner Rd	Palm Dr to Mountain View Rd	13,600	1,138	66.4	644	63.9	68.9	631	63.8	73.8	70.9	A,B,C,D,E,F
18C	Varner Rd	East of Mountain View Rd	28,300	2,367	69.6	1,339	67.1	72.1	1,314	67.0	77.0	74.1	A,B,C,D,F
19A	Miracle Hill Road	Pierson Blvd to Hacienda Avenue	6,520	473	56.4	319	54.7	59.7	171	52.0	62.0	59.7	A,B,C,D,E,F
20A	SR 62	I10 to Indian Canyon Drive	24,775	1,970	71.6	1,612	70.7	75.7	1,612	70.7	80.7	77.5	A,B,C,D,E,F
21A	I-10	SR62 to Date Palm Drive	173,258	21,133	81.8	16,939	80.8	85.8	16,939	80.8	90.8	87.6	A,B,C,D,E,F

Table Notes:

A ADT from Appendix Table J.

B Equivalent hourly traffic calculated by multiplying vehicles per hour from Appendix Table K times Caltrans equivalent vehicle factors for medium and heavy duty trucks (Caltrans 2013a, see also Appendix Table XYZ).

C Evening and nighttime CNEL values equal to L_{eq} (h) values plus 5 and 10 dBA, respectively.

D 24-hour CNEL assumes 12 hours of daytime L_{eq} (h), plus 3 hours of evening CNEL value L_{eq} (h), plus 9 hours of nighttime CNEL value L_{eq} (h).

E Daytime roadway segment was modeled using TNM Version 2.5.

F Daytime, evening, and nighttime roadway segment L_{eq} (h) and/or CNEL values estimated using Caltrans equation 4.2 (Caltrans, 2013a).

Table References:

Caltrans 2013a. Technical Noise Supplement to the Traffic Analysis Protocol. Sacramento, CA. September 2013.

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Desert Hot Springs General Plan Update

Desert Hot Springs, CA

Appendix: TNM Information - Vehicle Class Distributions

Prepared by MIG, October 2019

Table M: Riverside County Daily Traffic Vehicle Class Distribution

Road Classification	Average Daily Traffic By Vehicle Class		
	Auto	Medium Truck	Heavy Truck
Urban Arterial	92.0%	3.0%	5.0%
Major Arterial	92.0%	3.0%	5.0%
Minor Arterial	92.0%	3.0%	5.0%
Secondary	97.4%	1.8%	0.7%
Minor Collector	97.4%	1.8%	0.7%
Local Collector	97.4%	1.8%	0.7%
Freeway (SR62)	86.2%	6.6%	7.2%
Freeway (I10)	75.1%	6.1%	18.8%

Table N: Riverside County Daytime, Evening, and Nightime Vehicle Class Distribution

Road Classification	Daytime (7 AM to 7 PM) Vehicle Class Distribution		
	Auto	Medium Truck	Heavy Truck
Arterial	69.50%	1.44%	2.40%
Secondary	73.60%	0.90%	0.35%
Collector	73.60%	0.90%	0.35%
Freeway (SR62)	47.41%	3.62%	3.97%
Freeway (I10)	41.67%	3.41%	10.42%
Road Classification	**Evening (7 PM to 10 PM) Vehicle Class Distribution**		
	Auto	**Medium Truck**	**Heavy Truck**
Arterial	12.90%	0.06%	0.10%
Secondary	13.60%	0.04%	0.04%
Collector	13.60%	0.04%	0.04%
Freeway (SR62)	9.70%	0.74%	0.81%
Freeway (I10)	8.35%	0.68%	2.09%
Road Classification	**Nightime (10 PM to 7 AM) Vehicle Class Distribution**		
	Auto	**Medium Truck**	**Heavy Truck**
Arterial	9.60%	1.50%	2.50%
Secondary	10.20%	0.90%	0.35%
Collector	10.20%	0.90%	0.35%
Freeway (SR62)	29.10%	2.22%	2.44%
Freeway (I10)	25.05%	2.05%	6.26%

TABLE O: EMFAC 2017 Vehicle Population Information					
TNM Vehicle Type	**Vehicle Class (EMFAC2007)**	**2019 Vehicle Population**	**2019 Vehicle Population %**	**2040 Vehicle Popluation**	**2040 Vehicle Population %**
Auto	LDA	146,826	50.8%	221,339	50.4%
Auto	LDT1	17,004	5.9%	29,302	6.7%
Auto	LDT2	53,565	18.5%	88,139	20.1%
Auto	LHDT1	6,983	2.4%	10,083	2.3%
Auto	MDV	43,737	15.1%	60,188	13.7%
Auto	MCY	5,750	2.0%	10,048	2.3%
	Subtotal	***273,865***	***94.7%***	***419,099***	***95.4%***
Medium Truck	LHDT2	2,136	0.7%	2,923	0.7%
Medium Truck	MHDT	3,929	1.4%	5,901	1.3%
Medium Truck	OBUS	227	0.1%	409	0.1%
Medium Truck	SBUS	312	0.1%	366	0.1%
	Subtotal	***6,604***	***2.3%***	***9,599***	***2.2%***
Heavy Truck	HHDT	6,975	2.4%	9,270	2.1%
Heavy Truck	MH	1,551	0.5%	1,376	0.3%
Heavy Truck	UBUS	107	0.0%	121	0.0%
	Subtotal	**8,633**	**3.0%**	**10,767**	**2.5%**
	TOTAL	**289,102**	**100.0%**	**439,466**	**100.0%**

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SS)
Calendar Year: 2019, 2040
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption
NOTE: This EMFAC output was modifed by deleting all columns after the population output

Region	Calendar Y	Vehicle Cat	Model Year	Speed	Fuel	Population
Riverside (S	2019	HHDT	Aggregated	Aggregated	GAS	0.85741276
Riverside (S	2019	HHDT	Aggregated	Aggregated	DSL	6935.66789
Riverside (S	2019	HHDT	Aggregated	Aggregated	NG	38.0998618
Riverside (S	2019	LDA	Aggregated	Aggregated	GAS	144415.083
Riverside (S	2019	LDA	Aggregated	Aggregated	DSL	1046.48771
Riverside (S	2019	LDA	Aggregated	Aggregated	ELEC	1364.45159
Riverside (S	2019	LDT1	Aggregated	Aggregated	GAS	16975.5328
Riverside (S	2019	LDT1	Aggregated	Aggregated	DSL	11.6240839
Riverside (S	2019	LDT1	Aggregated	Aggregated	ELEC	16.5936358
Riverside (S	2019	LDT2	Aggregated	Aggregated	GAS	53125.6547
Riverside (S	2019	LDT2	Aggregated	Aggregated	DSL	234.163688
Riverside (S	2019	LDT2	Aggregated	Aggregated	ELEC	205.325325
Riverside (S	2019	LHDT1	Aggregated	Aggregated	GAS	4171.76366
Riverside (S	2019	LHDT1	Aggregated	Aggregated	DSL	2811.62516
Riverside (S	2019	LHDT2	Aggregated	Aggregated	GAS	971.813019
Riverside (S	2019	LHDT2	Aggregated	Aggregated	DSL	1164.61605
Riverside (S	2019	MCY	Aggregated	Aggregated	GAS	5749.78479
Riverside (S	2019	MDV	Aggregated	Aggregated	GAS	43104.1332
Riverside (S	2019	MDV	Aggregated	Aggregated	DSL	590.6994
Riverside (S	2019	MDV	Aggregated	Aggregated	ELEC	42.0010334
Riverside (S	2019	MH	Aggregated	Aggregated	GAS	1014.6883
Riverside (S	2019	MH	Aggregated	Aggregated	DSL	536.265032
Riverside (S	2019	MHDT	Aggregated	Aggregated	GAS	556.272228
Riverside (S	2019	MHDT	Aggregated	Aggregated	DSL	3372.29815
Riverside (S	2019	OBUS	Aggregated	Aggregated	GAS	121.414938
Riverside (S	2019	OBUS	Aggregated	Aggregated	DSL	105.692509
Riverside (S	2019	SBUS	Aggregated	Aggregated	GAS	50.5754832
Riverside (S	2019	SBUS	Aggregated	Aggregated	DSL	260.984687
Riverside (S	2019	UBUS	Aggregated	Aggregated	DSL	0
Riverside (S	2019	UBUS	Aggregated	Aggregated	ELEC	5
Riverside (S	2019	UBUS	Aggregated	Aggregated	NG	102.454979
					Total Pop:	289,102

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SS)
Calendar Year: 2019, 2040
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption
NOTE: This EMFAC output was modifed by deleting all columns after the population output

Riverside (S	2040	HHDT	Aggregatec	Aggregatec	GAS	4.82921991
Riverside (S	2040	HHDT	Aggregatec	Aggregatec	DSL	9144.77367
Riverside (S	2040	HHDT	Aggregatec	Aggregatec	NG	120.497002
Riverside (S	2040	LDA	Aggregatec	Aggregatec	GAS	205920.546
Riverside (S	2040	LDA	Aggregatec	Aggregatec	DSL	2511.84867
Riverside (S	2040	LDA	Aggregatec	Aggregatec	ELEC	12906.2051
Riverside (S	2040	LDT1	Aggregatec	Aggregatec	GAS	28297.944
Riverside (S	2040	LDT1	Aggregatec	Aggregatec	DSL	3.67932628
Riverside (S	2040	LDT1	Aggregatec	Aggregatec	ELEC	1000.86451
Riverside (S	2040	LDT2	Aggregatec	Aggregatec	GAS	83701.3268
Riverside (S	2040	LDT2	Aggregatec	Aggregatec	DSL	838.213178
Riverside (S	2040	LDT2	Aggregatec	Aggregatec	ELEC	3599.11489
Riverside (S	2040	LHDT1	Aggregatec	Aggregatec	GAS	5020.78996
Riverside (S	2040	LHDT1	Aggregatec	Aggregatec	DSL	5062.50257
Riverside (S	2040	LHDT2	Aggregatec	Aggregatec	GAS	834.715187
Riverside (S	2040	LHDT2	Aggregatec	Aggregatec	DSL	2088.48537
Riverside (S	2040	MCY	Aggregatec	Aggregatec	GAS	10048.1491
Riverside (S	2040	MDV	Aggregatec	Aggregatec	GAS	55586.15
Riverside (S	2040	MDV	Aggregatec	Aggregatec	DSL	1922.90936
Riverside (S	2040	MDV	Aggregatec	Aggregatec	ELEC	2679.13455
Riverside (S	2040	MH	Aggregatec	Aggregatec	GAS	862.908862
Riverside (S	2040	MH	Aggregatec	Aggregatec	DSL	513.040248
Riverside (S	2040	MHDT	Aggregatec	Aggregatec	GAS	1270.52124
Riverside (S	2040	MHDT	Aggregatec	Aggregatec	DSL	4630.65987
Riverside (S	2040	OBUS	Aggregatec	Aggregatec	GAS	150.037388
Riverside (S	2040	OBUS	Aggregatec	Aggregatec	DSL	258.943467
Riverside (S	2040	SBUS	Aggregatec	Aggregatec	GAS	117.364417
Riverside (S	2040	SBUS	Aggregatec	Aggregatec	DSL	248.484536
Riverside (S	2040	UBUS	Aggregatec	Aggregatec	DSL	0
Riverside (S	2040	UBUS	Aggregatec	Aggregatec	NG	120.973679
					Total Pop:	439,466

MIG							**20 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**01A_Worsley_ICD-MLB_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	48.6	0	48.6	0	Snd Lvl	48.6	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 20 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 01A_Worsley_ICD-MLB_EX19_E
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	47.4	0	47.4	0	Snd Lvl	47.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**20 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**01A_Worsley_ICD-MLB_EX19_N**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	41.4	0	41.4	0	Snd Lvl	41.4	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		20 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	03A_Diablo_14th-Dillon_EX19_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	48.9	0	48.9	0	Snd Lvl	48.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							20 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		03A_Diablo_14thtoDillon_EX19_E										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	47.4	0	47.4	0	Snd Lvl	47.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		20 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	03A_Diablo_14thtoDillon_EX19_N	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	43.6	0	43.6	0	Snd Lvl	43.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

20 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 04B_Karen_10thtoPierson_EX19_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	42.6	0	42.6	0	Snd Lvl	42.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

20 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 04B_Karen_10thtoPierson_EX19_E
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	41.4	0	41.4	0	Snd Lvl	41.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		20 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	04B_Karen_10thtoPierson_EX19_N	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	39.6	0	39.6	0	Snd Lvl	39.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**20 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**05A_IndianCyn_SR62-Worsley_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	63.7	0	63.7	0	Snd Lvl	63.7	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**20 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**05A_IndianCyn_SR62-Worsley_EX19_E**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	61.2	0	61.2	0	Snd Lvl	61.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		21 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	05A_IndianCyn_SR62-Worsley_EX19_N	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	61.1	0	61.1	0	Snd Lvl	61.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG				21 September 2019
C. Dugan				TNM 2.5
				Calculated with TNM 2.5
RESULTS: SOUND LEVELS				
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan			
RUN:	06A_LittleMorongo_NofMisLak_EX19_D			
BARRIER DESIGN:	INPUT HEIGHTS			Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH			

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	53.3	0	53.3	0	Snd Lvl	53.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 06A_LittleMorongo_NofMisLak_EX19_E
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	51.7	0	51.7	0	Snd Lvl	51.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		06A_LittleMorongo_NofMisLak_EX19_N										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	48.4	0	48.4	0	Snd Lvl	48.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 06B_LittleMorongo_MLBtoPiers_EX19_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.3	0	58.3	0	Snd Lvl	58.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		06B_LittleMorongo_MLBtoPiers_EX19_E										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	56.7	0	56.7	0	Snd Lvl	56.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**06B_LittleMorongo_MLBtoPiers_EX19_N**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	53.2	0	53.2	0	Snd Lvl	53.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan
RUN:	06C_LittleMorongo_PierstoHacn_EX19_D
BARRIER DESIGN:	INPUT HEIGHTS
ATMOSPHERICS:	68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	61.0	0	61.0	0	Snd Lvl	61.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		21 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	06C_LittleMorongo_PierstoHacn_EX19_E	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.5	0	59.5	0	Snd Lvl	59.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		21 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	06C_LittleMorongo_PierstoHacn_EX19_N	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	55.6	0	55.6	0	Snd Lvl	55.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**07A_WestDr_MLBtoPierson_EX19_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										
Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n Sub'l Inc**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated minus Goal**
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	52.9	0	52.9	0	Snd Lvl	52.9	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**07A_WestDr_MLBtoPierson_EX19_E**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											

Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	51.2	0	51.2	0	Snd Lvl	51.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		07A_WestDr_MLBtoPierson_EX19_N											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	48.5	0	48.5	0	Snd Lvl	48.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		07B_WestDr_PierstoHacienda_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	54.3	0	54.3	0	Snd Lvl	54.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		21 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	07B_WestDr_PierstoHacienda_EX19_E	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	52.7	0	52.7	0	Snd Lvl	52.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 07B_WestDr_PierstoHacienda_EX19_N
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	49.9	0	49.9	0	Snd Lvl	49.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08A_PalmDr_NorthofMLB_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											

Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	39.6	0	39.6	0	Snd Lvl	39.6	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**08A_PalmDr_NorthofMLB_EX19_E**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										

Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	38.1	0	38.1	0	Snd Lvl	38.1	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		08A_PalmDr_NorthofMLB_EX19_N										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	35.9	0	35.9	0	Snd Lvl	35.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08B_PalmDr_MLBtoPierson_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.7	0	59.7	0	Snd Lvl	59.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08B_PalmDr_MLBtoPierson_EX19_E**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h**		**Increase over existing**		**Type**	**With Barrier Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n Sub'l Inc**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	58.0	0	58.0	0	Snd Lvl	58.0	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08B_PalmDr_MLBtoPierson_EX19_N
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	55.3	0	55.3	0	Snd Lvl	55.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG								**21 September 2019**					
C. Dugan								**TNM 2.5**					
								Calculated with TNM 2.5					
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08E_PalmDr_2BPT-Campanero_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**							**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h Calculated**	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**With Barrier Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	66.6	0	66.6	0	Snd Lvl	66.6	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08E_PalmDr_2BPT-Campanero_EX19_E
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	63.8	0	63.8	0	Snd Lvl	63.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							21 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		08E_PalmDr_2BPT-Campanero_EX19_N										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	64.8	0	64.8	0	Snd Lvl	64.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan
RUN:	08F_PalmDr_Campan-Aventura_EX19_D
BARRIER DESIGN:	INPUT HEIGHTS
ATMOSPHERICS:	68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	68.0	0	68.0	0	Snd Lvl	68.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08F_PalmDr_Campan-Aventura_EX19_E
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	65.3	0	65.3	0	Snd Lvl	65.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

21 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08F_PalmDr_Campan-Aventura_EX19_N
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	65.9	0	65.9	0	Snd Lvl	65.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08G_PalmDr_Avent-Dillon_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	70.4	0	70.4	0	Snd Lvl	70.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08G_PalmDr_Avent-Dillon_EX19_E**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	68.0	0	68.0	0	Snd Lvl	68.0	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08G_PalmDr_Avent-Dillon_EX19_N
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	67.9	0	67.9	0	Snd Lvl	67.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 21 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08H_PalmDr_Dillon-I10_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	71.5	0	71.5	0	Snd Lvl	71.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08H_PalmDr_Dillon-I10_EX19_E**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h Calculated**	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**With Barrier Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	69.1	0	69.1	0	Snd Lvl	69.1	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**21 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**08H_PalmDr_Dillon-I10_EX19_N**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					

Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	68.8	0	68.8	0	Snd Lvl	68.8	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**30 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**09A_BubblingWells_NoDillon_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h**					**With Barrier**				
				Calculated	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	55.7	0	55.7	0	Snd Lvl	55.7	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 09A_BubblingWells_NoDillon_EX19_E
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	54.1	0	54.1	0	Snd Lvl	54.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**30 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**09A_BubblingWells_NoDillon_EX19_N**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h**					**With Barrier**				
				Calculated	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	51.0	0	51.0	0	Snd Lvl	51.0	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 09B_BubblingWells_Dillonto20th_EX19_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	56.5	0	56.5	0	Snd Lvl	56.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 09B_BubblingWells_Dillonto20th_EX19_E
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	55.0	0	55.0	0	Snd Lvl	55.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							30 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		09B_BubblingWells_Dillonto20th_EX19_N										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	51.2	0	51.2	0	Snd Lvl	51.2	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							30 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		10A_MountainView_HactoDillon_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	56.5	0	56.5	0	Snd Lvl	56.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							30 September 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		10A_MountainView_HactoDillon_EX19_E											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	53.4	0	53.4	0	Snd Lvl	53.4	0.0	0	0.0	

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 10A_MountainView_HactoDillon_EX19_N
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	55.1	0	55.1	0	Snd Lvl	55.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							30 September 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		10B_MountainView_Dillonto20th_EX19_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless					
								a State highway agency substantiates the use					
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.					
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	65.9	0	65.9	0	Snd Lvl	65.9	0.0	0	0.0	

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							30 September 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		10B_MountainView_Dillonto20th_EX19_E										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	63.4	0	63.4	0	Snd Lvl	63.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

30 September 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 11A_LongCanyon_NorthofDillon_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.8	0	59.8	0	Snd Lvl	59.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 12D_MissionLkBlv_ICDrtoLMRd_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.6	0	59.6	0	Snd Lvl	59.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		30 September 2019				
C. Dugan		TNM 2.5				
		Calculated with TNM 2.5				
RESULTS: SOUND LEVELS						
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan					
RUN:	12E_MissionLkBlv_LMRdtoWest_EX19_D					
BARRIER DESIGN:	INPUT HEIGHTS		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.			
ATMOSPHERICS:	68 deg F, 50% RH					

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.7	0	58.7	0	Snd Lvl	58.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**30 September 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**12F_MissionLkBlv_WesttoPalm_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											

Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	56.4	0	56.4	0	Snd Lvl	56.4	0.0	0	0.0	

Dwelling Units		**# DUs**	**Noise Reduction**		
			Min	**Avg**	**Max**
			dB	**dB**	**dB**
All Selected		1	0.0	0.0	0.0
All Impacted		1	0.0	0.0	0.0
All that meet NR Goal		1	0.0	0.0	0.0

MIG 30 September 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13A_PiersonBlvd_SR62toWorsl_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.4	0	59.4	0	Snd Lvl	59.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		30 September 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	13B_PiersonBlvd_WorsltoDiablo_EX19_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	60.1	0	60.1	0	Snd Lvl	60.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		1 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	13C_PiersonBlvd_DiablotoKaren_EX19_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	60.1	0	60.1	0	Snd Lvl	60.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 1 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13D_PiersonBlvd_KarentolCDr_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.6	0	59.6	0	Snd Lvl	59.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 1 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13E_PiersonBlvd_ICDrtoLMRd_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	61.8	0	61.8	0	Snd Lvl	61.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		13F_PiersonBlvd_LMRdtoAtlant_EX19_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	63.2	0	63.2	0	Snd Lvl	63.2	0.0	0	0.0	

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

1 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13G_PiersonBlvd_AtlanttoWest_EX19_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	62.1	0	62.1	0	Snd Lvl	62.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		13H_PiersonBlvd_WesttoPalm_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	57.8	0	57.8	0	Snd Lvl	57.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 1 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 14E_HaciendaAve_ChollatoPalm_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.9	0	58.9	0	Snd Lvl	58.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG | 1 October 2019
C. Dugan | TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 14F_HaciendaAve_PalmtoOcotill_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	57.7	0	57.7	0	Snd Lvl	57.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		14G_HaciendaAve_OcotiltoVerb_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.3	0	59.3	0	Snd Lvl	59.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		1 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	15F_2BunchPalms_LMrdtoCabot_EX19_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.0	0	58.0	0	Snd Lvl	58.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		15G_2BunchPalms_CabtoCholla_EX19_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.0	0	58.0	0	Snd Lvl	58.0	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**1 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**15H_2BunchPalms_Cholltowest_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	58.0	0	58.0	0	Snd Lvl	58.0	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

1 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 15I_2BunchPalms_WesttoPalm_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	56.5	0	56.5	0	Snd Lvl	56.5	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

1 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 15J_2BunchPalms_EastofPalm_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	54.3	0	54.3	0	Snd Lvl	54.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		17A_20thAve_WorsleytoDiablo_EX19_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless					
								a State highway agency substantiates the use					
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.					

Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	56.7	0	56.7	0	Snd Lvl	56.7	0.0	0	0.0	

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		16A_DillonRd_SR62toWorsley_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	60.3	0	60.3	0	Snd Lvl	60.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

1 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan
RUN:	16B_DillonRd_WorsleytoDiablo_EX19_D
BARRIER DESIGN:	INPUT HEIGHTS
ATMOSPHERICS:	68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	60.1	0	60.1	0	Snd Lvl	60.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		1 October 2019	
C. Dugan		TNM 2.5	
		Calculated with TNM 2.5	
RESULTS: SOUND LEVELS			
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan		
RUN:	16C_DillonRd_DiablotoKaren_EX19_D		
BARRIER DESIGN:	INPUT HEIGHTS		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH		

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	60.4	0	60.4	0	Snd Lvl	60.4	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 1 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 16D_DillonRd_KarentoIndianCDr_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	59.9	0	59.9	0	Snd Lvl	59.9	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							1 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		16E_DillonRd_IndCDrtoLittleMRd_EX19_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	65.7	0	65.7	0	Snd Lvl	65.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**1 October 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**17A_20thAve_WorsleytoDiablo_EX19_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**				
								a State highway agency substantiates the use				
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**				
Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	56.7	0	56.7	0	Snd Lvl	56.7	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**1 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**18A_VarnerRd_MihaylotoPalm_EX19_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											

Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	39.6	0	39.6	0	Snd Lvl	39.6	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 1 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 19A_MiracleHill_PierstoHacienda_EX19_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	47.2	0	47.2	0	Snd Lvl	47.2	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG			1 October 2019
C. Dugan			TNM 2.5
			Calculated with TNM 2.5
RESULTS: SOUND LEVELS			
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan		
RUN:	20A_SR62_I10toIndianCanyonDr_EX19		
BARRIER DESIGN:	INPUT HEIGHTS		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH		

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	70.7	0	70.7	0	Snd Lvl	70.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		1 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	21A_I10_SR62toDatePalm_EX19_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	79.3	0	79.3	0	Snd Lvl	79.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

RESULTS: SOUND LEVELS DHS

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	2040_FP_1A_Worsley_Indian-Mission	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	50.0	66	50.0	10	----	50.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	2040_FP_2A_Oasis_13th-14th	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. — 2 October 2019
Phil Gleason — TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS
RUN: 2040_FP_3A_Diablo_14th-Dillon
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_4A_Karen_Indian-10th
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. | 2 October 2019
Phil Gleason | TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS

RUN: 2040_FP_5A_Indian_SR62-Worsley

BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_5E_Indian_Pierson-13th
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_5H_Indian_Dillion-20th
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.							2 October 2019						
Phil Gleason							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		DHS											
RUN:		2040_FP_6A_LilMorongo_North-of-Missio											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	53.2	66	53.2	10	----	53.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. — 2 October 2019
Phil Gleason — TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT:	DHS
RUN:	2040_FP_6B_LilMorongo_Mission-Pierson
BARRIER DESIGN:	INPUT HEIGHTS
ATMOSPHERICS:	68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS

RUN: 2040_FP_7A_West_Mission-Pierson

BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_7B_West_Pierson-Hacienda
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_8B_Palm_Mission-Pierson
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS
RUN: 2040_FP_8C_Palm_Pierson-Hacienda
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. | 2 October 2019
Phil Gleason | TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS
RUN: 2040_FP_8E_Palm_TwoBunch-CamCamp
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver									With Barrier			
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.
Phil Gleason

2 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: DHS
RUN: 2040_FP_8E_Palm_CamCamp-CamAve
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.							2 October 2019						
Phil Gleason							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		DHS											
RUN:		2040_FP_9A_Bubbling_North-of-Dillon											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless					
								a State highway agency substantiates the use					
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.					
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
100 ft	1	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0	

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_10A_Mountain_Hacienda-Dillon
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	2040_FP_11A_Long_North-of-Dillon	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.							2 October 2019					
Phil Gleason							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		DHS										
RUN:		2040_FP_12A_Mission_SR62-Worsley										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	56.4	66	56.4	10	----	56.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_13A_Pierson_SR62-Worsley
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.							2 October 2019					
Phil Gleason							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		DHS										
RUN:		2040_FP_13I_Pierson_Palm-Miracle										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_14A_Hacienda_Diablo-Karen
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. **2 October 2019**
Phil Gleason **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_15A_TwoBunch_SR62-Worsle
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	48.5	66	48.5	10	----	48.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_16A_Dillon_SR62-Worsley
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. **2 October 2019**
Phil Gleason **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_17A_20th_Worsley-Diablo
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	53.5	66	53.5	10	----	53.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	2040_FP_18A_Varner_Mihaylo-Palm	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	2040_FP_18B_Varner_Palm-Mountain	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_19A_Miracle_Pierson-Hacienda
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	56.4	66	56.4	10	----	56.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_20A_SR62_I10-Indian
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc. 2 October 2019
Phil Gleason TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 2040_FP_21A_I10_SR62-Date
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	81.8	66	81.8	10	Snd Lvl	81.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG
C. Dugan

2 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan
RUN:	01A_Worsley_ICD-MLB_NP40_D
BARRIER DESIGN:	INPUT HEIGHTS
ATMOSPHERICS:	68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	49.8	0	49.8	0	Snd Lvl	49.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG, Inc. — 2 October 2019
Phil Gleason — TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: DHS
RUN: 02A_OasisDR_13th-14th_NP40_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	55.6	66	55.6	10	----	55.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG							2 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		03A_Diablo_14th-Dillon_NP40_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless				
								a State highway agency substantiates the use				
ATMOSPHERICS:		68 deg F, 50% RH						of a different type with approval of FHWA.				

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.1	0	58.1	0	Snd Lvl	58.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		2 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	05A_IndianCyn_SR62-Worsley_NP40_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	67.8	0	67.8	0	Snd Lvl	67.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG **2 October 2019**
C. Dugan **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **Desert Hot Springs 2040 General Plan**
RUN: **05F_IndianCyn_13thto14th_NP40_D**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	69.2	0	69.2	0	Snd Lvl	69.2	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 05H_IndianCyn_Dillonto20th_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	72.6	0	72.6	0	Snd Lvl	72.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		2 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	06A_LittleMorongo_NofMisLak_NP40_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	55.3	0	55.3	0	Snd Lvl	55.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**06E_LittleMorongo_2BPtoDillon_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n Sub'l Inc**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	68.7	0	68.7	0	Snd Lvl	68.7	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**07A_WestDr_MLBtoPierson_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	59.2	0	59.2	0	Snd Lvl	59.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG, Inc.							2 October 2019					
Phil Gleason							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		DHS										
RUN:		08C_PalmDr_Pierson-Hacienda_NP40D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 08E_PalmDr_2BPT-Campanero_NP40_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	72.3	0	72.3	0	Snd Lvl	72.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**08F_PalmDr_Campanero-Aventu_NP40_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										

Receiver												
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h Calculated**	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**With Barrier Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	73.3	0	73.3	0	Snd Lvl	73.3	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**09A_BubblingWells_NoDillon_NP40_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										
Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n Sub'l Inc**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated minus Goal**
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	57.7	0	57.7	0	Snd Lvl	57.7	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 10A_MountainView_HactoDillon_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	67.1	0	67.1	0	Snd Lvl	67.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**11A_LongCanyon_NorthofDillon_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h Calculated**	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**With Barrier Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	58.6	0	58.6	0	Snd Lvl	58.6	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG, Inc.		2 October 2019
Phil Gleason		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	DHS	
RUN:	12A_Mission_SR62-Worsley_NP40_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
100 ft	1	1	0.0	50.1	66	50.1	10	----	50.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

MIG, Inc.							**2 October 2019**						
Phil Gleason							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**DHS**											
RUN:		**12B_Mission_Worsley-Karen_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
100 ft	1	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0	
Dwelling Units		**# DUs**	**Noise Reduction**										
			Min	**Avg**	**Max**								
			dB	**dB**	**dB**								
All Selected		1	0.0	0.0	0.0								
All Impacted		0	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

MIG							**2 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**13A_PiersonBlvd_SR62toWorsl_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless**					
								a State highway agency substantiates the use					
ATMOSPHERICS:		**68 deg F, 50% RH**						**of a different type with approval of FHWA.**					
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	67.2	0	67.2	0	Snd Lvl	67.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13E_PiersonBlvd_ICDrtoLMRd_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	65.8	0	65.8	0	Snd Lvl	65.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 13I_PiersonBlvd_PalmtoMiracle_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver									With Barrier			
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	62.8	0	62.8	0	Snd Lvl	62.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**14C_HaciendaAve_ICDtoLMRd_NP40_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										
Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	58.1	0	58.1	0	Snd Lvl	58.1	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**						
C. Dugan							**TNM 2.5**						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**											
RUN:		**15E_2BunchPalms_ICDtoLMrd_NP40_D**											
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**					
ATMOSPHERICS:		**68 deg F, 50% RH**											
Receiver													
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**				
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**			
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**	
							Sub'l Inc					**minus**	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	57.7	0	57.7	0	Snd Lvl	57.7	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							2 October 2019					
C. Dugan							TNM 2.5					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan										
RUN:		16A_DillonRd_SR62toWorsley_NP40_D										
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.				
ATMOSPHERICS:		68 deg F, 50% RH										

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	67.6	0	67.6	0	Snd Lvl	67.6	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							**2 October 2019**					
C. Dugan							**TNM 2.5**					
							Calculated with TNM 2.5					
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		**Desert Hot Springs 2040 General Plan**										
RUN:		**16E_DillonRd_IndCDrtoLittleMRd_NP40_D**										
BARRIER DESIGN:		**INPUT HEIGHTS**						**Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.**				
ATMOSPHERICS:		**68 deg F, 50% RH**										

Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated**
							Sub'l Inc					**minus**
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	68.8	0	68.8	0	Snd Lvl	68.8	0.0	0	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							2 October 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		16H_DillonRd_MntVwtoLngCny_NP40_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	67.3	0	67.3	0	Snd Lvl	67.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG
C. Dugan

2 October 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 17A_20thAve_WorsleytoDiablo_NP40_D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	61.3	0	61.3	0	Snd Lvl	61.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 17D_20thAve_ICDtoLMRd_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	66.1	0	66.1	0	Snd Lvl	66.1	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		2 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	18A_VarnerRd_MihaylotoPalm_NP40_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	62.3	0	62.3	0	Snd Lvl	62.3	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 18B_VarnerRd_PalmtoMntView_NP40_D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	64.7	0	64.7	0	Snd Lvl	64.7	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG		2 October 2019
C. Dugan		TNM 2.5
		Calculated with TNM 2.5
RESULTS: SOUND LEVELS		
PROJECT/CONTRACT:	Desert Hot Springs 2040 General Plan	
RUN:	19A_MiracleHill_PierstoHacienda_NP40_D	
BARRIER DESIGN:	INPUT HEIGHTS	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS:	68 deg F, 50% RH	

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	57.8	0	57.8	0	Snd Lvl	57.8	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG 2 October 2019
C. Dugan TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Desert Hot Springs 2040 General Plan
RUN: 20A_SR62_I10toIndianCanyonDr_NP40D
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver1 (100 ft from road center)	1	1	0.0	73.2	0	73.2	0	Snd Lvl	73.2	0.0	0	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

MIG							2 October 2019						
C. Dugan							TNM 2.5						
							Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		Desert Hot Springs 2040 General Plan											
RUN:		21A_I10_SR62toDatePalm_NP40_D											
BARRIER DESIGN:		INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	**No.**	**#DUs**	**Existing LAeq1h**	**No Barrier LAeq1h Calculated**	**Crit'n**	**Increase over existing Calculated**	**Crit'n Sub'l Inc**	**Type Impact**	**With Barrier Calculated LAeq1h**	**Noise Reduction Calculated**	**Goal**	**Calculated minus Goal**	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Receiver1 (100 ft from road center)	1	1	0.0	82.2	0	82.2	0	Snd Lvl	82.2	0.0	0	0.0	

Dwelling Units	**# DUs**	**Noise Reduction Min**	**Avg**	**Max**
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	1	0.0	0.0	0.0

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Appendix F - Traffic Impact Analysis & Memo

DESERT HOT SPRINGS GENERAL PLAN UPDATE TRAFFIC IMPACT ANALYSIS

July 8, 2019

ganddini

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

DESERT HOT SPRINGS GENERAL PLAN UPDATE TRAFFIC IMPACT ANALYSIS

July 8, 2019

prepared by
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18-0236

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1. INTRODUCTION

This section describes the study purpose and objectives, site location/study area, and the proposed development.

PURPOSE AND OBJECTIVES

The purpose of this traffic impact analysis is to provide an assessment of traffic operations and the roadway improvements necessary to accommodate ultimate buildout of the City of Desert Hot Springs General Plan Land Use Plan. The study objectives include documentation of existing and forecast transportation operations and identification of roadway improvements and system management actions needed to achieve the performance standards established by the City of Desert Hot Springs.

The following scenarios are analyzed during typical weekday AM and PM peak hour conditions:

- Existing Conditions
- Current General Plan Buildout (Year 2040)
- Proposed General Plan Buildout (Year 2040)

Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms related to transportation engineering.

SITE LOCATION AND STUDY AREA

The City of Desert Hot Springs is located within the Coachella Valley geographic region of eastern Riverside County. Figure 1 shows the regional location map and Figure 2 illustrates the project study area.

Study locations were generally selected based on review of previous General Plan updates, review of key intersections and roadway segments, and scoping input from City of Desert Hot Springs engineering staff. The study area consists of the following study intersections and roadway segments:

Study Intersections[1]	Existing Traffic Control
1. State Route 62 [SR-62] (NS) at Indian Canyon Drive (EW)	Traffic Signal
2. SR-62 (NS) at Pierson Boulevard (EW)	Cross Street Stop
3. SR-62 (NS) at Dillon Road (EW)	Traffic Signal
4. Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW)	Traffic Signal
5. Indian Canyon Drive (NS) at Pierson Boulevard (EW)	All Way Stop
6. Indian Canyon Drive (NS) at 14th Avenue (EW)	No Control
7. Indian Canyon Drive (NS) at Dillon Road (EW)	All Way Stop
8. Indian Canyon Drive (NS) at 20th Avenue (EW)	Traffic Signal
9. Little Morongo Road (NS) at Mission Lakes Boulevard (EW)	All Way Stop
10. Little Morongo Road (NS) at Pierson Boulevard (EW)	All Way Stop
11. Little Morongo Road (NS) at Two Bunch Palms Trail (EW)	All Way Stop
12. Little Morongo Road (NS) at Dillon Road (EW)	All Way Stop
13. Little Morongo Road (NS) at 20th Avenue (EW)	*Future Intersection*
14. Palm Drive (NS) at Mission Lakes Boulevard (EW)	All Way Stop

[1] (NS) = North-South Roadway; (EW) = East-West Roadway

	Study Intersections[1]	Existing Traffic Control
15.	Palm Drive (NS) at Pierson Boulevard (EW)	Traffic Signal
16.	Palm Drive (NS) at Hacienda Avenue (EW)	Traffic Signal
17.	Palm Drive (NS) at Two Bunch Palms Trail (EW)	Traffic Signal
18.	Palm Drive (NS) at Dillon Road (EW)	Traffic Signal
19.	Palm Drive (NS) at 20th Avenue (EW)	Cross Street Stop
20.	Palm Drive (NS) at Varner Road (EW)	Traffic Signal
21.	Mountain View Road (NS) at Hacienda Avenue (EW)	Traffic Signal
22.	Mountain View Road (NS) at Dillon Road (EW)	Traffic Signal
23.	Mountain View Road (NS) at Varner Road (EW)	All Way Stop
24.	Long Canyon Road (NS) at Dillon Road (EW)	All Way Stop

	Study Roadway Segments
1.	Worsley Road between Indian Canyon Drive and Mission Lakes Boulevard
2.	Worsley Road between Mission Lakes Boulevard and Pierson Boulevard
3.	Worsley Road between Pierson Boulevard and Hacienda Boulevard
4.	Worsley Road between Hacienda Boulevard and Two Bunch Palms Trail [Future Segment]
5.	Worsley Road between Two Bunch Palms Trail and Dillon Road
6.	Worsley Road between Dillon Road and 20th Avenue
7.	Oasis Drive between 13th Avenue and 14th Avenue [Future Segment]
8.	Diablo Road between 14th Avenue and Dillon Road
9.	Karen Avenue between Indian Canyon Drive and 10th Avenue [Future Segment]
10.	Karen Avenue between 10th Avenue and Pierson Boulevard
11.	Karen Avenue between Pierson Boulevard and 13th Avenue [Future Segment]
12.	Karen Avenue between 13th Avenue and 14th Avenue [Future Segment]
13.	Karen Avenue between 14th Avenue and Dillon Road [Future Segment]
14.	Indian Canyon Drive between SR-62 and Worsley Road
15.	Indian Canyon Drive between Worsley Road and Karen Avenue [Future Segment]
16.	Indian Canyon Drive between Karen Avenue and Mission Lakes Boulevard
17.	Indian Canyon Drive between Mission Lakes Boulevard and Pierson Boulevard
18.	Indian Canyon Drive between Pierson Boulevard and 13th Avenue
19.	Indian Canyon Drive between 13th Avenue to 14th Avenue
20.	Indian Canyon Drive between 14th Avenue and Dillon Road
21.	Indian Canyon Drive between Dillon Road and 20th Avenue
22.	Little Morongo Road north of Mission Lakes Boulevard
23.	Little Morongo Road between Mission Lakes Boulevard and Pierson Boulevard
24.	Little Morongo Road between Pierson Boulevard and Hacienda Avenue
25.	Little Morongo Road between Hacienda Avenue and Two Bunch Palms Trail
26.	Little Morongo Road between Two Bunch Palms Trail and Dillon Road
27.	Little Morongo Road between Dillon Road and 20th Avenue [Future Segment]
28.	West Drive between 8th Street and Pierson Boulevard
29.	West Drive between Hacienda Avenue and Two Bunch Palms Trail
30.	Palm Drive north of Mission Lakes Boulevard
31.	Palm Drive between Mission Lakes Boulevard and Pierson Boulevard

Study Roadway Segments	
32.	Palm Drive between Pierson Boulevard and Hacienda Avenue
33.	Palm Drive between Hacienda Avenue and Two Bunch Palms Trail
34.	Palm Drive between Two Bunch Palms Trail and Dillon Road
35.	Palm Drive between Dillon Road and 20th Avenue
36.	Palm Drive between 20th Avenue and Varner Road
37.	Palm Drive between Varner Road and I-10 Freeway
38.	Bubbling Wells Road north of Dillon Road
39.	Bubbling Wells Road between Dillon Road and 20th Avenue
40.	Mountain View Road between Hacienda Avenue and Dillon Road
41.	Mountain View Road between Dillon Road and 20th Avenue
42.	Mountain View Road between 20th Avenue and Varner Road
43.	Long Canyon Road north of Dillon Road
44.	10th Avenue between SR-62 and Worsley Road [Future Segment]
45.	10th Avenue between Worsley Road and Karen Road [Future Segment]
46.	10th Avenue between Karen Road and Indian Canyon Drive [Future Segment]
47.	Mission Lakes Boulevard between Indian Canyon Drive and Little Morongo Road
48.	Mission Lakes Boulevard between Little Morongo Road and Cholla Drive
49.	Mission Lakes Boulevard between Cholla Drive and Palm Drive
50.	Pierson Boulevard between SR-62 and Worsley Road
51.	Pierson Boulevard between Worsley Road and Diablo Road [Future Segment]
52.	Pierson Boulevard between Diablo Road and Karen Avenue
53.	Pierson Boulevard between Karen Avenue and Indian Canyon Drive
54.	Pierson Boulevard between Indian Canyon Drive and Little Morongo Road
55.	Pierson Boulevard between Little Morongo Road and Cholla Drive
56.	Pierson Boulevard between Cholla Drive and Palm Drive
57.	Pierson Boulevard east of Palm Drive
58.	13th Avenue between Diablo Road and Karen Avenue [Future Segment]
59.	13th Avenue between Karen Avenue and Indian Canyon Drive [Future Segment]
60.	13th Avenue between Indian Canyon Drive and Little Morongo Road
61.	Hacienda Avenue between Little Morongo Road and Cholla Drive [Future Segment]
62.	Hacienda Avenue between Cholla Drive and Palm Drive
63.	Hacienda Avenue between Palm Drive and Mountain View Road
64.	Hacienda Avenue east of Mountain View Road
65.	14th Avenue between SR-62 and Worsley Road [Future Segment]
66.	14th Avenue between Worsley Road and Diablo Road [Future Segment]
67.	14th Avenue between Diablo Road and Karen Avenue [Future Segment]
68.	14th Avenue between Karen Avenue and Indian Canyon Drive [Future Segment]
69.	14th Avenue between Indian Canyon Drive and Little Morongo Road [Future Segment]
70.	Two Bunch Palms Trail between Little Morongo Road and Cholla Drive
71.	Two Bunch Palms Trail between Cholla Drive and Palm Drive
72.	Two Bunch Palms Trail east of Palm Drive
73.	Dillon Road between SR-62 and Worsley Road
74.	Dillon Road between Worsley Road and Diablo Road

Study Roadway Segments	
75.	Dillon Road between Diablo Road and Karen Avenue
76.	Dillon Road between Karen Avenue and Indian Canyon Drive
77.	Dillon Road between Indian Canyon Drive and Little Morongo Road
78.	Dillon Road between Little Morongo Road and Palm Drive
79.	Dillon Road between Palm Drive and Mountain View Road
80.	Dillon Avenue between Mountain View Road and Long Canyon Road
81.	Dillon Road east of Long Canyon Road
82.	20th Avenue between Worsley Road and Diablo Road [Future Segment]
83.	20th Avenue between Diablo Road and Karen Avenue
84.	20th Avenue between Karen Avenue and Indian Canyon Drive
85.	20th Avenue between Indian Canyon Drive and Little Morongo Road [Future Segment]
86.	20th Avenue between Little Morongo Road and Palm Drive [Future Segment]
87.	20th Avenue between Palm Drive and Mountain View Road
88.	Varner Road between Mihaylo Road and Palm Drive
89.	Varner Road between Palm Drive and Mountain View Road
90.	Varner Road east of Mountain View Road

PROPOSED LAND USE PLAN

Figure 3 shows the proposed General Plan Land Use Plan. The proposed General Plan Update will modify the current City of Desert Hot Springs General Plan Land Use Element. This report analyzes future traffic conditions associated with Year 2040 buildout of the proposed City of Desert Hot Springs General Plan Land Use Element. The following is a summary of the socio-economic data associated with the proposed General Plan buildout totals:

Type		Desert Hot Springs		Sphere of Influence		Planning Area	
		Existing (2018)	Proposed (2040)	Existing (2018)	Proposed (2040)	Existing (2018)	Proposed (2040)
Dwelling Units	SF[1]	8,358	22,214	7,292	18,025	15,650	40,239
	MF[2]	3,204	12,594	246	831	3,450	13,425
	Total	**11,562**	**34,808**	**7,538**	**18,856**	**19,100**	**53,664**
Population		29,390	88,476	19,160	47,926	48,550	136,402
Non-Residential Building SF[3]		2,655,016	13,140,605	559,250	7,209,099	3,214,266	20,349,704
Employees		4,162	14,611	1,020	5,920	5,182	20,531
Hotel/Motel Rooms		755	1,652	--	--	755	1,652
Students		6,326	12,900	763	7,100	7,089	20,000

Notes:
1) SF = Single Family Dwelling Units
2) MF = Multiple Family Units
3) Non-Residential Building = Commercial, Office, and Industrial buildings

Source: City of Desert Hot Springs and General Plan Update GIS data, California Department of Finance, Southern California Association of Governments, 2019.

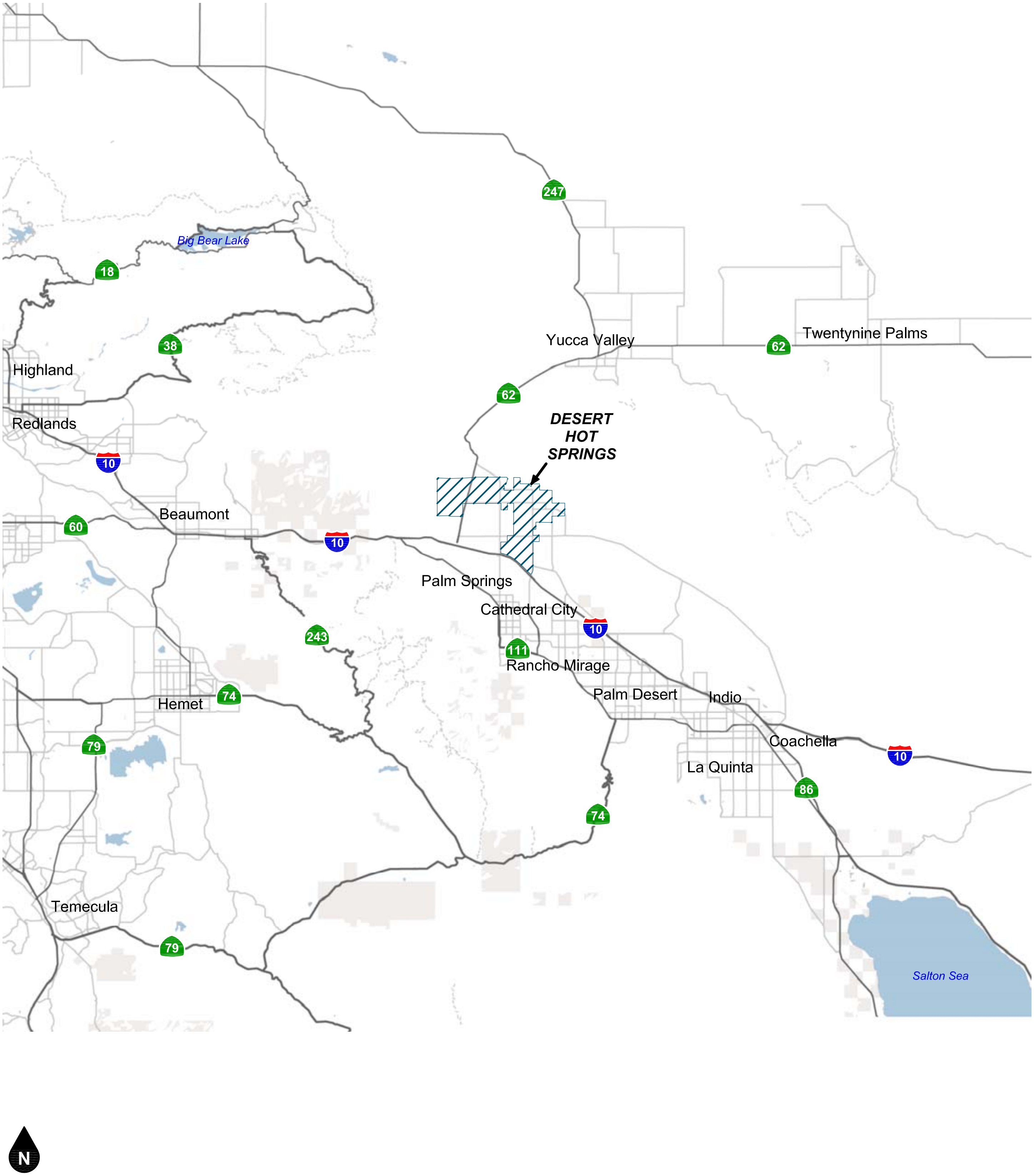


Figure 1
Regional Location Map

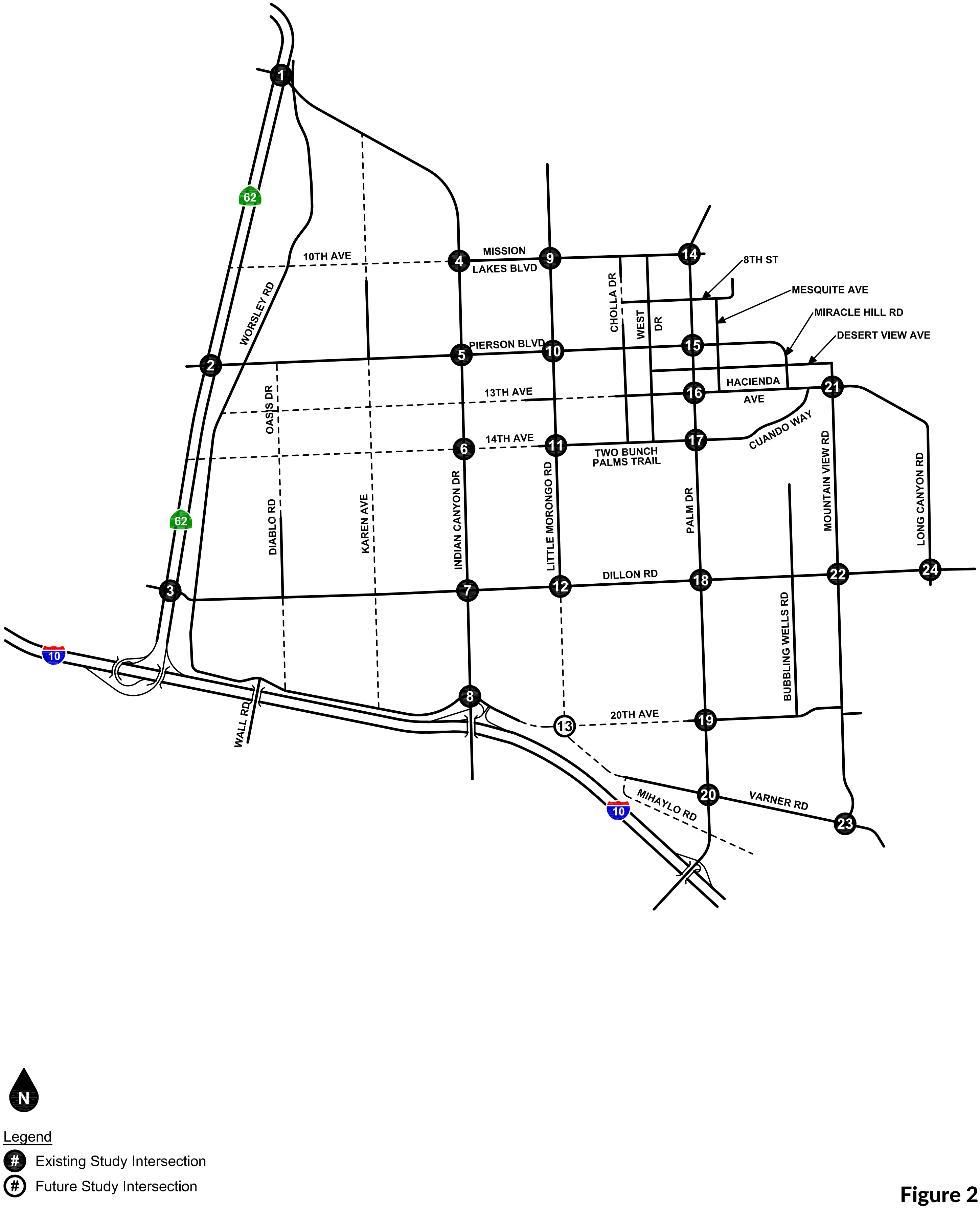


Figure 2
Study Area Map

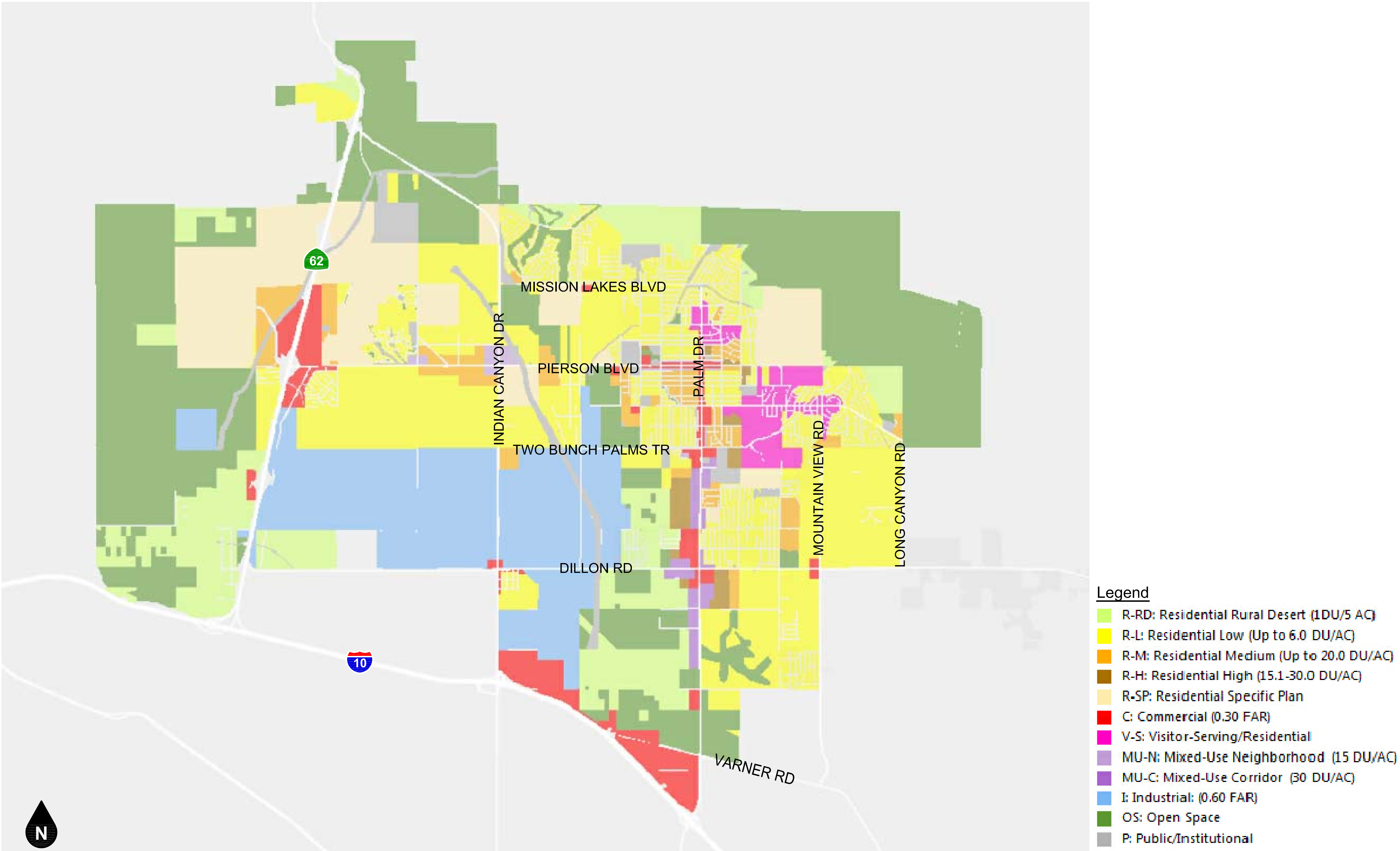


Figure 3
Proposed General Plan Land Use Plan

2. METHODOLOGY

This traffic impact analysis has been prepared in accordance with the guidance and parameters established in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide (April 2008) ["Riverside County Guidelines"].

INTERSECTION DELAY METHODOLOGY

To assess the performance of an intersection, the City of Desert Hot Springs uses the intersection delay method based on procedures contained in the Highway Capacity Manual (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service as shown in Table 1 below.

Table 1. Intersection Control Delay and Level of Service Criteria

Level of Service	Intersection Control Delay (Seconds / Vehicle)		Description
	Signalized Intersection	Unsignalized Intersection	
A	≤ 10.0	≤ 10.0	EXCELLENT OPERATION. All approaches to the intersection appear quite open, turning movements are easily made and nearly all drivers find freedom of operation.
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0	VERY GOOD OPERATION: Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0	GOOD OPERATION. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0	FAIR OPERATION. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0	POOR OPERATION. Some long-standing vehicular queues develop on critical approaches.
F	> 80.0	> 50.0	FORCED FLOW. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

Intersection delay analysis was performed using the Vistro (Version 6.00-00) software. The Level of Service analysis has been performed in accordance with the input parameters identified in Exhibit C of the Riverside County Guidelines. Default values recommended in the Highway Capacity Manual were used for any values not specifically identified in the Riverside County Guidelines.

ROADWAY SEGMENT VOLUME-TO-CAPACITY METHODOLOGY

Roadway segment performance is based on the volume-to-capacity ratio, which is calculated by dividing the volume of traffic using the roadway by the theoretical roadway capacity. The volume-to-capacity ratio is then correlated to Level of Service based on the same thresholds as Intersection Capacity Utilization shown above.

Table 2 below shows the theoretical daily traffic volume capacity for roadway segment planning purposes. Actual daily roadway capacity is a function of many factors, including, but not limited to, roadway alignment, intersection and driveway spacing, signal timing, lane widths, and duration of peak periods. Roadway segment volume-to-capacity ratios, based on daily traffic volumes, are used for planning level analysis to identify locations with potential peak hour deficiencies. Ultimately, actual roadway capacity is generally determined by peak hour intersection operations since intersections are typically the most constraining portions of a roadway.

Table 2. Daily Roadway Capacity Estimates

Classification	Right-Of-Way	Number of Lanes	Level of Service E Capacity
Urban Arterial	134 feet	8D	72,000
Major Arterial	110 feet	6D	54,000
Minor Arterial	110 feet	4D	36,000
Major Collector	100 feet	4D	36,000
Minor Collector	88 feet	4U	26,000
Secondary	80 feet	4U	26,000
Local Collector	60 feet	2U	13,000

LEVEL OF SERVICE STANDARD

The current City of Desert Hot Springs General Plan Circulation Element identifies Level of Service D as generally acceptable during the peak operating periods.

Consistent with previous General Plan updates, Level of Service D shall be maintained as the minimum acceptable Level of Service for the circulation network.

3. EXISTING CONDITIONS

This section documents existing transportation conditions as of 2019 for the City of Desert Hot Springs. Existing conditions data was compiled from information provided by the City, recent plans and studies, field observations, and field data collection. Specifically, this section provides an overview of the following components of the existing City transportation system:

- Roadway system
- Roadway segment and intersection traffic volumes
- Roadway segment and intersection Levels of Service
- Transit services
- Bicycle facilities

ROADWAY SYSTEM

Figure 4 identifies the existing intersection traffic controls and lane geometry based on a field survey of the study area. The two major routes providing regional access for the City of Desert Hot Springs are Interstate 10 and State Route 62. Figure 5 shows the existing and future traffic signals currently in design/construction.

Interstate 10 (I-10) provides regional east-west access from its westerly origin in Santa Monica, through the Coachella Valley, and eastward through the southern United States. I-10 is an eight-lane divided freeway through the region. Interchanges providing access for City of Desert Hot Springs are located at Indian Canyon Drive and Palm Drive.

State Route 62 (SR-62) generally trends in a north-south direction along the western side of the City before transitioning into an east-west orientation in Yucca Valley. SR-62 is a four-lane divided highway providing regional access from the junction at I-10 to its eastern terminus at US 95S at the Arizona state line. Primary access points for City of Desert Hot Springs access are provided at Indian Canyon Drive, Pierson Boulevard, and Dillon Road.

ROADWAY SEGMENT AND INTERSECTION VOLUMES

Figure 6 shows the Existing conditions average daily traffic volumes for the study roadway segments. Existing average daily traffic volumes were obtained from the Coachella Valley Association of Governments Traffic Census Report and from 24-hour roadway segment counts collected in April 2018.

Existing peak hour intersection volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in April 2018 during typical weekday conditions and while local schools were in session. The AM peak period was counted between 7:00 AM and 9:00 AM and the PM peak period was counted between 4:00 PM and 6:00 PM. The actual peak hour within the peak period is the four consecutive 15 minute periods with the highest total volume when all movements are added together. Thus, the PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Appendix B.

Figure 7 and Figure 8 show the AM peak hour and PM peak hour intersection turning movement volumes for Existing conditions.

EXISTING ROADWAY SEGMENT LEVEL OF SERVICE

The study roadway segment capacity analysis and Levels of Service for Existing conditions are shown in Table 3.

The study roadway segments currently operate within acceptable Levels of Service (D or better), except for the following roadway segments (see Table 3):

R34. Palm Drive between Two Bunch Palms Trail and Dillon Road
R35. Palm Drive between Dillon Road and 20th Avenue
R36. Palm Drive between 20th Avenue and Varner Road
R70. Two Bunch Palms Trail between Little Morongo Road and Cholla Drive

EXISTING INTERSECTION LEVEL OF SERVICE

The study intersection Levels of Service for Existing conditions are shown in Table 4. Existing intersection Level of Service calculation worksheets are provided in Appendix C.

The study intersections currently operate within acceptable Levels of Service (D or better) during the peak hours for Existing conditions, except for the following intersections (see Table 4):

7. Indian Canyon Drive (NS) at Dillon Road (EW) (LOS E, AM/PM peak hours)
19. Palm Drive (NS) at 20th Avenue (EW) (LOS F, PM peak hour)
23. Mountain View Road (NS) at Varner Road (EW) (LOS F, AM peak hour)

TRANSIT SERVICE

The City of Desert Hot Springs is currently served by the SunLine Transit Agency. Figure 9 shows the following transit routes, Line 14 and Line 15, currently serving the City of Desert Hot Springs.

BICYCLE FACILITIES

Figure 10 shows existing bicycle facilities as documented in the City of Desert Hot Springs Bicycle and Pedestrian Master Plan (2016). Figure 11 shows the future bicycle network as established in the City of Desert Hot Springs Bicycle and Pedestrian Master Plan (2016).

GENERAL PLAN CONTEXT

Figure 12 shows the current General Plan roadway classification map. This figure shows the nature and extent of arterial and collector roadways that are needed to adequately serve the ultimate development designated by the Land Use Element of the current General Plan (2000). Figure 13 shows the current General Plan roadway cross-sections.

Table 3 (1 of 2)
Existing Roadway Segment Levels of Service

ID	Roadway	Segment	Classification	Existing Number of Lanes	LOS E Capacity	ADT	V/C	LOS
R1.	Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Minor Collector	2	13,000	236	0.02	A
R2.	Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Minor Collector	2	13,000	188	0.01	A
R3.	Worsley Rd	Pierson Blvd and Hacienda Blvd	Minor Collector	2	13,000	223	0.02	A
R4.	Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Minor Collector	2	13,000	223	0.02	A
R5.	Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Minor Collector	2	13,000	291	0.02	A
R6.	Worsley Rd	Dillon Rd and 20th Ave	Minor Collector	2	13,000	563	0.04	A
R8.	Diablo Rd	14th Ave and Dillon Rd	Local Collector	2	13,000	239	0.02	A
R10.	Karen Ave	10th Ave and Pierson Blvd	Secondary	2	13,000	41	0.00	A
R14.	Indian Canyon Dr	SR-62 and Worsley Rd	Minor Arterial	2	18,000	6,056	0.34	A
R15.	Indian Canyon Dr	Worsley Rd and Karen Ave	Minor Arterial	2	18,000	5,190	0.29	A
R16.	Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Minor Arterial	2	18,000	5,190	0.29	A
R17.	Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Minor Arterial	2	18,000	6,765	0.38	A
R18.	Indian Canyon Dr	Pierson Blvd and 13th Ave	Major Arterial	2	18,000	9,063	0.50	A
R19.	Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	2	18,000	9,236	0.51	A
R20.	Indian Canyon Dr	14th Ave and Dillon Rd	Major Arterial	2	18,000	8,862	0.49	A
R21.	Indian Canyon Dr	Dillon Rd and 20th Ave	Urban Arterial	2	18,000	14,183	0.79	C
R22.	Little Morongo Rd	north of Mission Lakes Blvd	Minor Collector	2	13,000	1,778	0.14	A
R23.	Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Major Collector	2	18,000	4,010	0.22	A
R24.	Little Morongo Rd	Pierson Blvd and Hacienda Ave	Major Collector	2	18,000	4,088	0.23	A
R25.	Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Major Collector	2	18,000	4,758	0.26	A
R26.	Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Major Arterial	2	18,000	7,382	0.41	A
R28.	West Dr	8th St and Pierson Blvd	Minor Collector	2	13,000	3,835	0.30	A
R29.	West Dr	Hacienda Ave and Two Bunch Palms Trail	Minor Collector	2	13,000	5,053	0.39	A
R30.	Palm Dr	north of Mission Lakes Blvd	Secondary	2	13,000	272	0.02	A
R31.	Palm Dr	Mission Lakes Blvd and Pierson Blvd	Minor Collector	4	26,000	15,044	0.58	A
R32.	Palm Dr	Pierson Blvd and Hacienda Ave	Major Collector	4	36,000	21,779	0.60	A
R33.	Palm Dr	Hacienda Ave and Two Bunch Palms Trail	Major Collector	4	36,000	28,752	0.80	C
R34.	Palm Dr	Two Bunch Palms Trail and Dillon Rd	Major Arterial	4	36,000	38,105	1.06	F
R35.	Palm Dr	Dillon Rd and 20th Ave	Urban Arterial	4	36,000	35,024	0.97	E
R36.	Palm Dr	20th Ave and Varner Rd	Urban Arterial	4	36,000	34,062	0.95	E
R37.	Palm Dr	Varner Rd and I-10 Freeway	Urban Arterial	4	36,000	30,521	0.85	D
R38.	Bubbling Wells Rd	north of Dillon Rd	Minor Collector	2	13,000	3,149	0.24	A
R39.	Bubbling Wells Rd	Dillon Rd and 20th Ave	Minor Collector	2	13,000	1,445	0.11	A
R40.	Mountain View Rd	Hacienda Ave and Dillon Rd	Minor Arterial	2	18,000	6,925	0.38	A
R41.	Mountain View Rd	Dillon Rd and 20th Ave	Minor Arterial	2	18,000	10,133	0.56	A
R42.	Mountain View Rd	20th Ave and Varner Rd	Minor Arterial	2	18,000	11,137	0.62	B
R43.	Long Canyon Rd	north of Dillon Rd	Minor Collector	2	13,000	3,067	0.24	A
R47.	Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Collector	2	13,000	3,985	0.31	A
R48.	Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Minor Collector	2	13,000	4,467	0.34	A
R49.	Mission Lakes Blvd	Cholla Dr and Palm Dr	Minor Collector	2	13,000	3,641	0.28	A
R50.	Pierson Blvd	SR-62 and Worsley Rd	Major Arterial	2	18,000	2,286	0.13	A
R51.	Pierson Blvd	Worsley Rd and Diablo Rd	Major Arterial	2	18,000	3,054	0.17	A

Table 3 (2 of 2)
Existing Roadway Segment Levels of Service

ID	Roadway	Segment	Classification	Existing Number of Lanes	LOS E Capacity	ADT	V/C	LOS
R52.	Pierson Blvd	Diablo Rd and Karen Ave	Major Arterial	2	18,000	3,054	0.17	A
R53.	Pierson Blvd	Karen Ave and Indian Canyon Dr	Major Arterial	2	18,000	2,384	0.13	A
R54.	Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	5,196	0.29	A
R55.	Pierson Blvd	Little Morongo Rd and Cholla Dr	Minor Arterial	4	36,000	8,482	0.24	A
R56.	Pierson Blvd	Cholla Dr and Palm Dr	Minor Arterial	4	36,000	7,566	0.21	A
R57.	Pierson Blvd	east of Palm Dr	Secondary	4	26,000	5,906	0.23	A
R62.	Hacienda Ave	Cholla Dr and Palm Dr	Minor Collector	2	13,000	6,167	0.47	A
R63.	Hacienda Ave	Palm Dr and Mountain View Rd	Minor Collector	2	13,000	9,382	0.72	C
R64.	Hacienda Ave	east of Mountain View Rd	Minor Collector	2	13,000	6,741	0.52	A
R70.	Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Secondary	2	13,000	12,141	0.93	E
R71.	Two Bunch Palms Trail	Cholla Dr and Palm Dr	Secondary	4	26,000	12,129	0.47	A
R72.	Two Bunch Palms Trail	east of Palm Dr	Secondary	2	13,000	9,449	0.73	C
R73.	Dillon Rd	SR-62 and Worsley Rd	Major Arterial	2	18,000	2,832	0.16	A
R74.	Dillon Rd	Worsley Rd and Diablo Rd	Major Arterial	2	18,000	2,650	0.15	A
R75.	Dillon Rd	Diablo Rd and Karen Ave	Major Arterial	2	18,000	2,842	0.16	A
R76.	Dillon Rd	Karen Ave and Indian Canyon Dr	Major Arterial	2	18,000	2,557	0.14	A
R77.	Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	9,779	0.54	A
R78.	Dillon Rd	Little Morongo Rd and Palm Dr	Minor Arterial	2	18,000	10,081	0.56	A
R79.	Dillon Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	18,000	10,539	0.59	A
R80.	Dillon Rd	Mountain View Rd and Long Canyon Rd	Major Arterial	2	18,000	10,866	0.60	A
R81.	Dillon Rd	east of Long Canyon Rd	Major Arterial	2	18,000	12,544	0.70	B
R82.	20th Ave	Worsley Rd and Diablo Rd	Minor Collector	2	13,000	1,489	0.11	A
R83.	20th Ave	Diablo Rd and Karen Ave	Minor Collector	2	13,000	1,489	0.11	A
R84.	20th Ave	Karen Ave and Indian Canyon Dr	Minor Collector	2	13,000	530	0.04	A
R85.	20th Ave	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	18,000	1,214	0.07	A
R87.	20th Ave	Palm Dr and Mountain View Rd	Minor Arterial	2	18,000	1,214	0.07	A
R88.	Varner Rd	Mihaylo Rd and Palm Dr	Minor Arterial	2	18,000	8	0.00	A
R89.	Varner Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	18,000	1,964	0.11	A
R90.	Varner Rd	east of Mountain View Rd	Minor Arterial	2	18,000	12,050	0.67	B

Notes:
(1) LOS = Level of Service; ADT = Average Daily Traffic; V/C = Volume/Capacity

Table 4
Existing Intersection Levels of Service

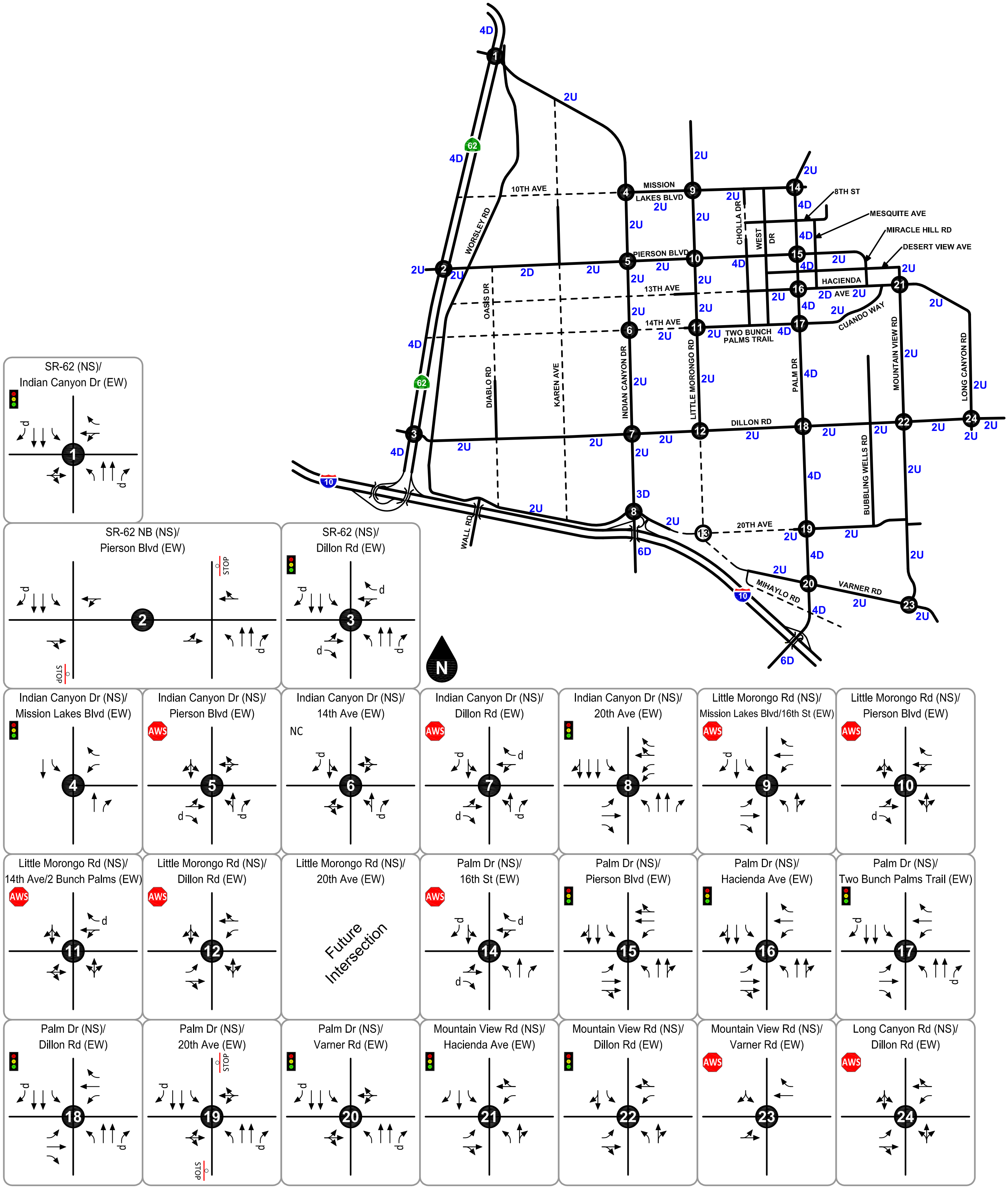
ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	SR-62 (NS) at Indian Canyon Dr (EW)	TS	10.5	B	17.0	B
2A.	SR-62 SB (NS) at Pierson Blvd (EW)	CSS	30.7	D	17.1	C
2B.	SR-62 NB (NS) at Pierson Blvd (EW)	CSS	12.5	B	19.8	C
3.	SR-62 (NS) at Dillon Rd (EW)	TS	9.1	A	8.4	A
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	TS	16.6	B	11.1	B
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	AWS	15.0	B	15.9	C
6.	Indian Canyon Dr (NS) at 14th Ave (EW)	CSS	15.6	C	17.5	C
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	AWS	49.3	E	37.1	E
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	TS	15.7	B	16.5	B
9.	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	AWS	10.1	B	9.5	A
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	AWS	14.5	B	11.9	B
11.	Little Morongo Rd (NS) at 14th Ave/Two Bunch Palms Trail (EW)	AWS	12.3	B	11.0	B
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	AWS	19.3	C	14.0	B
13.	Little Morongo Rd (NS) at 20th Ave (EW)	*Future Intersection*				
14.	Palm Dr (NS) at 16th St (EW)	AWS	12.6	B	9.8	A
15.	Palm Dr (NS) at Pierson Blvd (EW)	TS	22.1	C	19.6	B
16.	Palm Dr (NS) at Hacienda Ave (EW)	TS	18.6	B	21.0	C
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	TS	55.0	D	47.7	D
18.	Palm Dr (NS) at Dillon Rd (EW)	TS	27.1	C	21.9	C
19.	Palm Dr (NS) at 20th Ave (EW)	CSS	19.0	C	515.5	F
20.	Palm Dr (NS) at Varner Rd (EW)	TS	7.9	A	6.8	A
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	TS	25.2	C	25.5	C
22.	Mountain View Rd (NS) at Dillon Rd (EW)	TS	25.8	C	23.7	C
23.	Mountain View Rd (NS) at Varner Rd (EW)	AWS	83.1	F	22.5	C
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	AWS	12.9	B	13.7	B

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service



Legend

- Traffic Signal
- AWS All Way Stop
- STOP Stop Sign
- **#D** #-Lane Divided Roadway
- **#U** #-Lane Undivided Roadway
- Existing Lane
- d De Facto Right Turn Lane
- NC No Control

Figure 4
Existing Study Intersection Traffic Controls and Lane Geometry

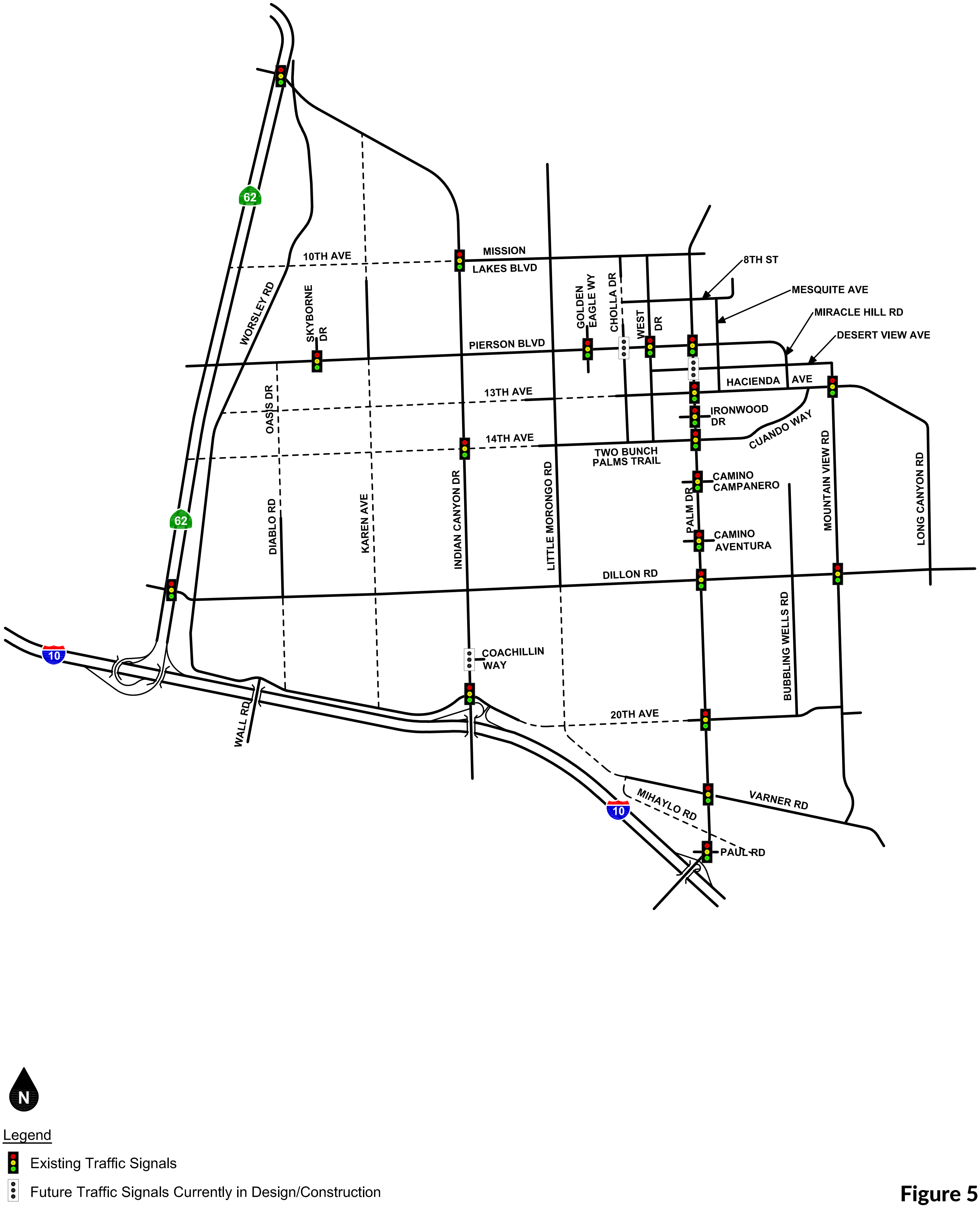
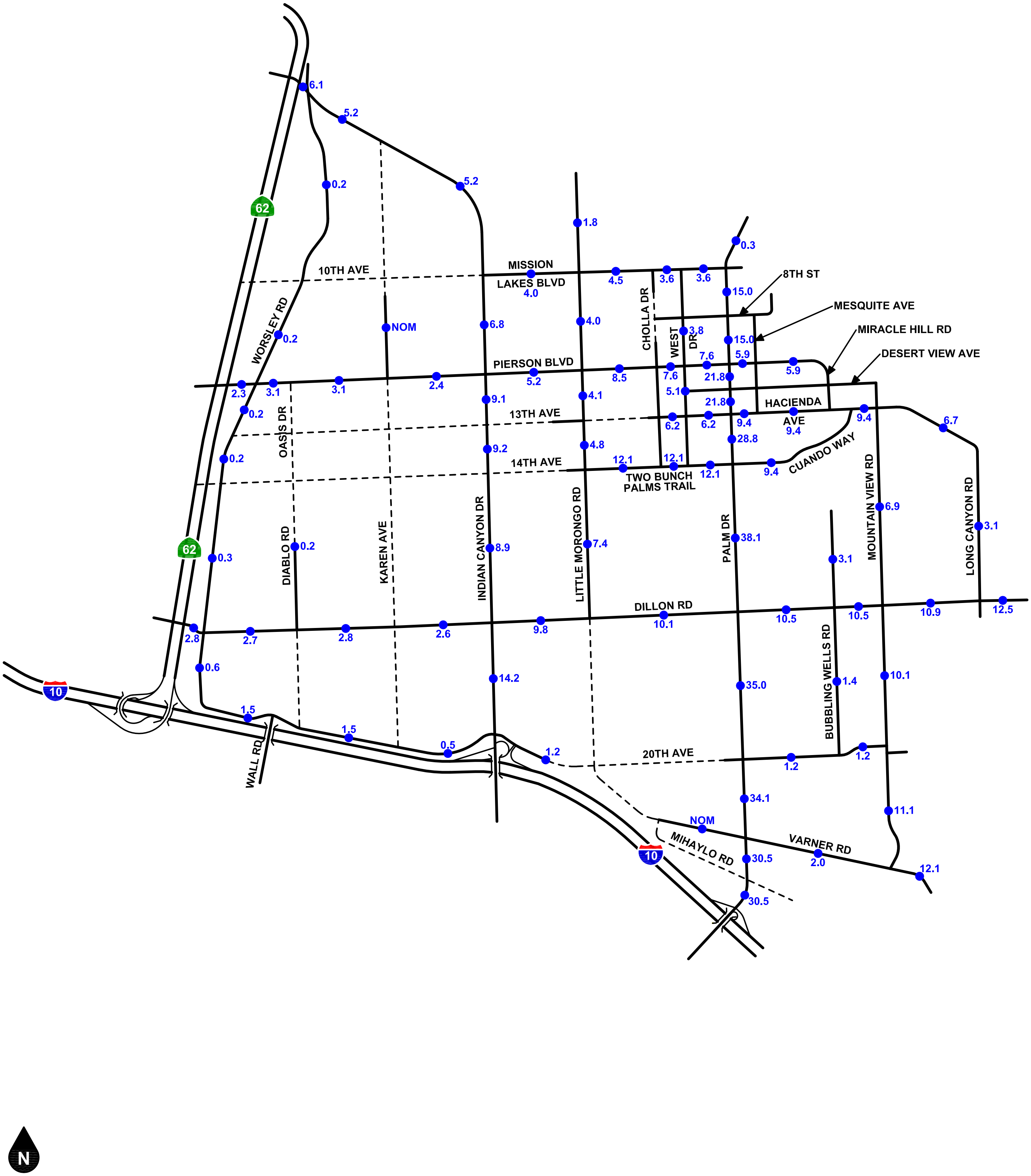


Figure 5
Existing and Future Traffic Signals

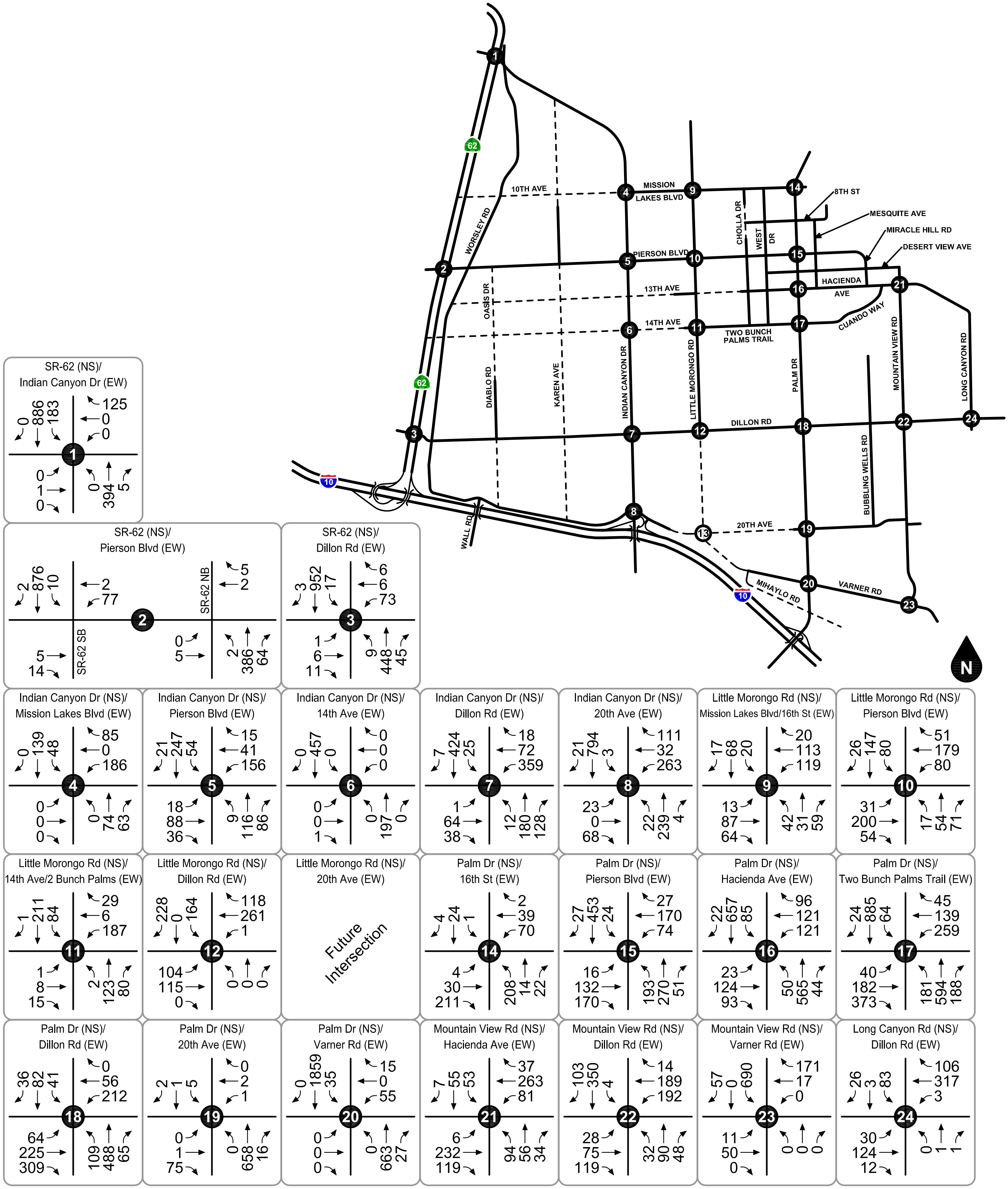


Legend

● ## Vehicles Per Day (1,000's)

NOM Nominal; Less Than 50 Vehicles Per Day

Figure 6
Existing Average Daily Traffic Volumes



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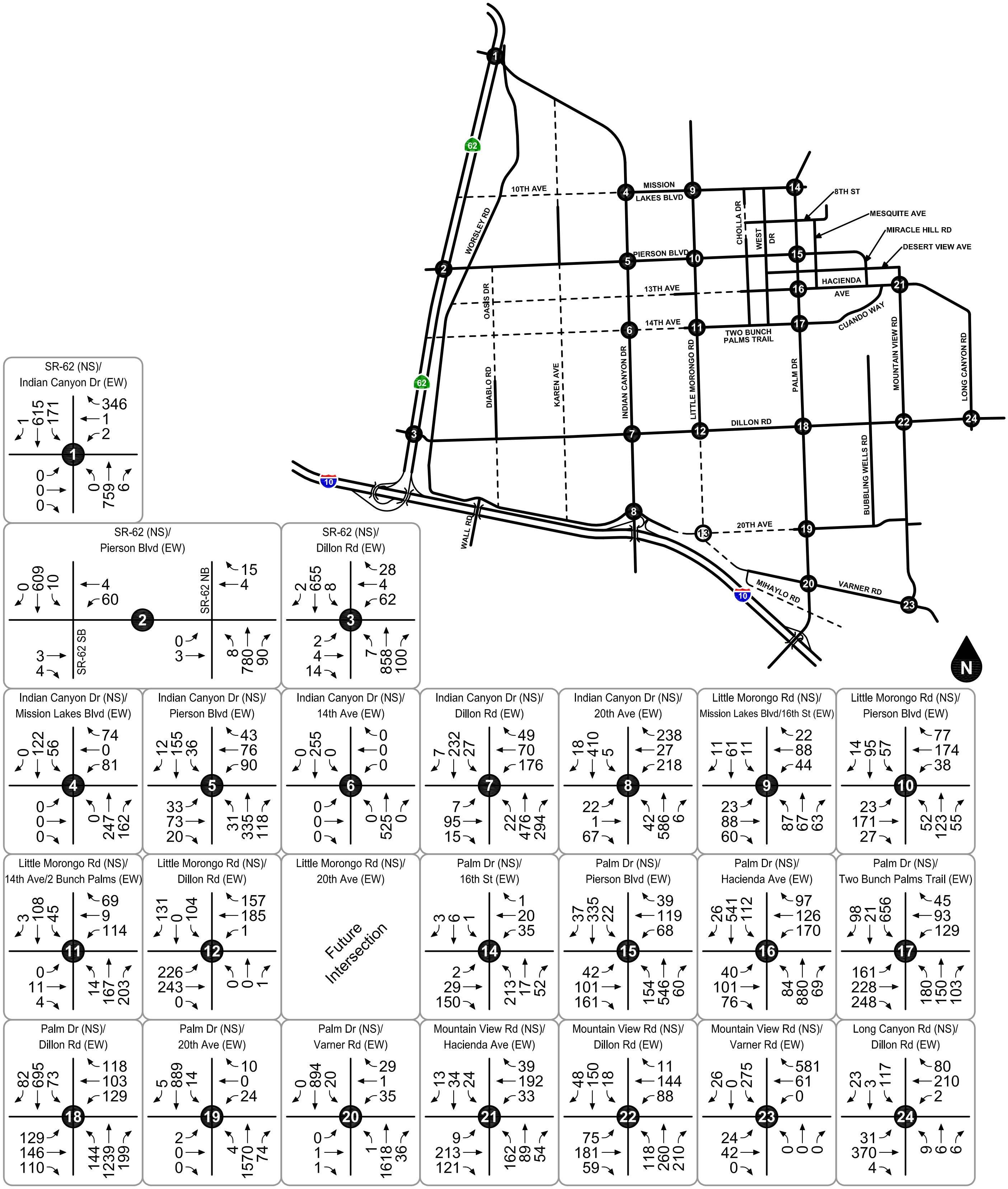
Existing Study Intersection

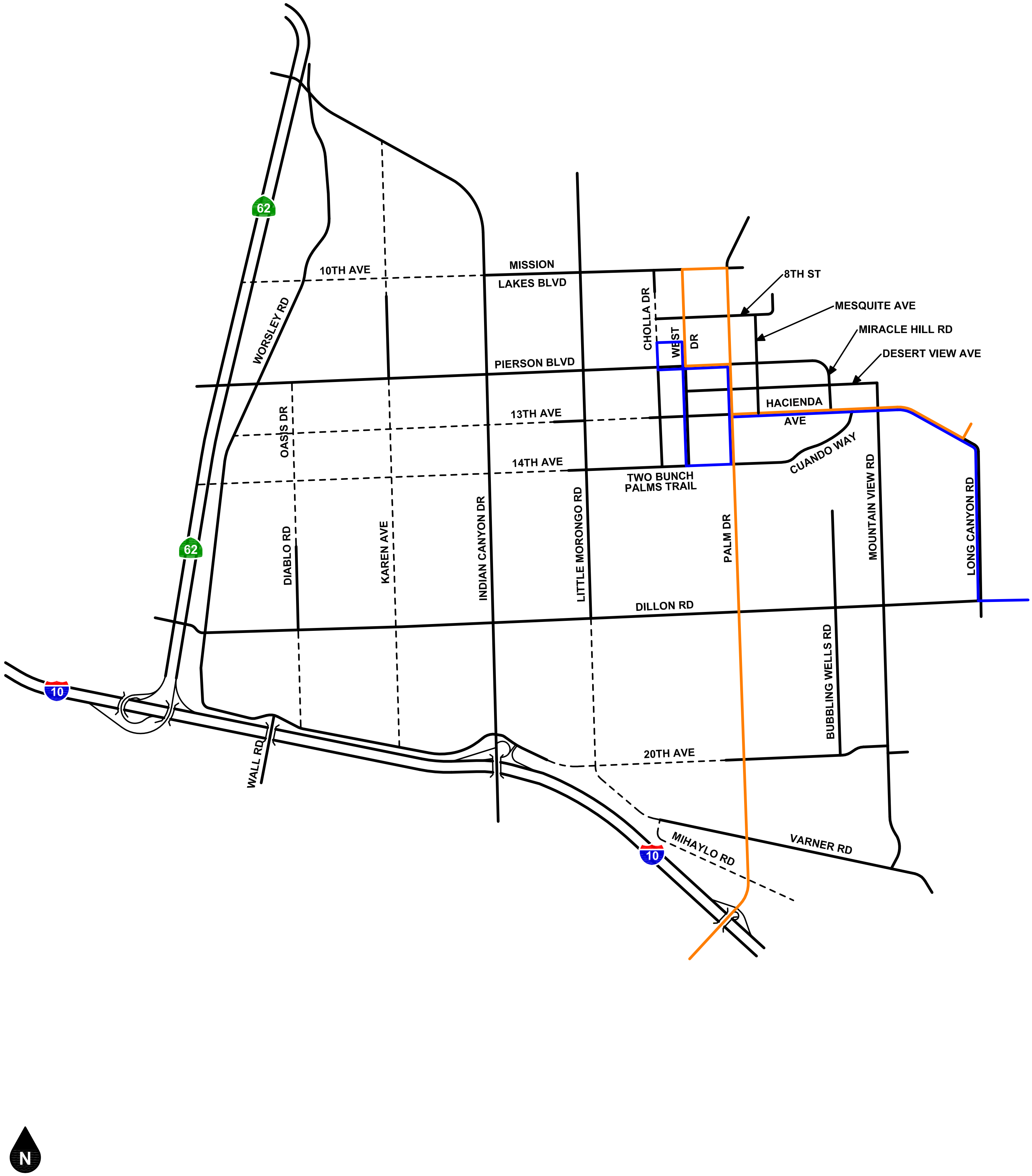
Future Study Intersection

Figure 7
Existing AM Peak Hour Intersection Turning Movement Volumes



Legend
- Existing Study Intersection
- Future Study Intersection

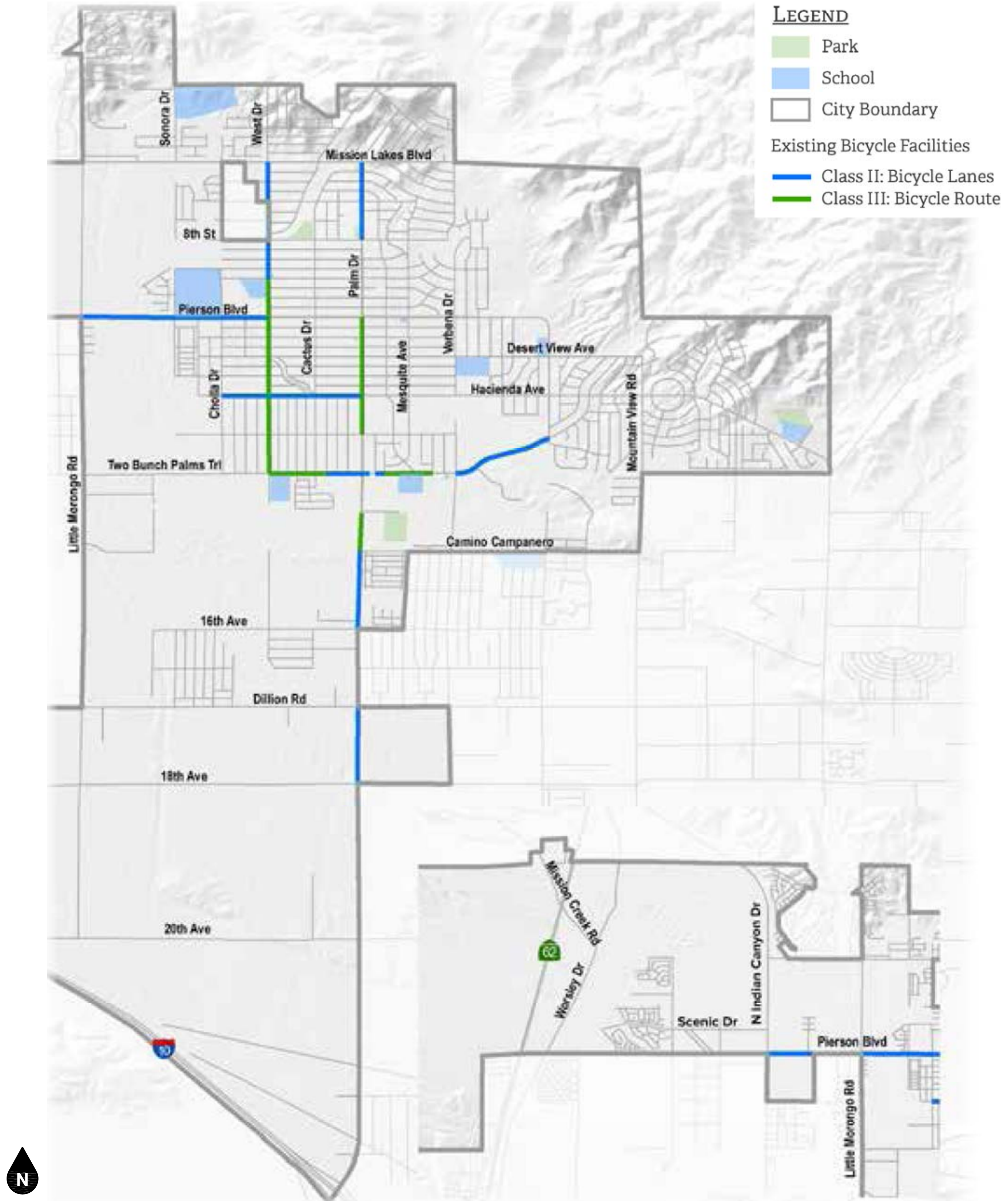
Figure 8
Existing PM Peak Hour Intersection Turning Movement Volumes



Legend
Line 14
Line 15

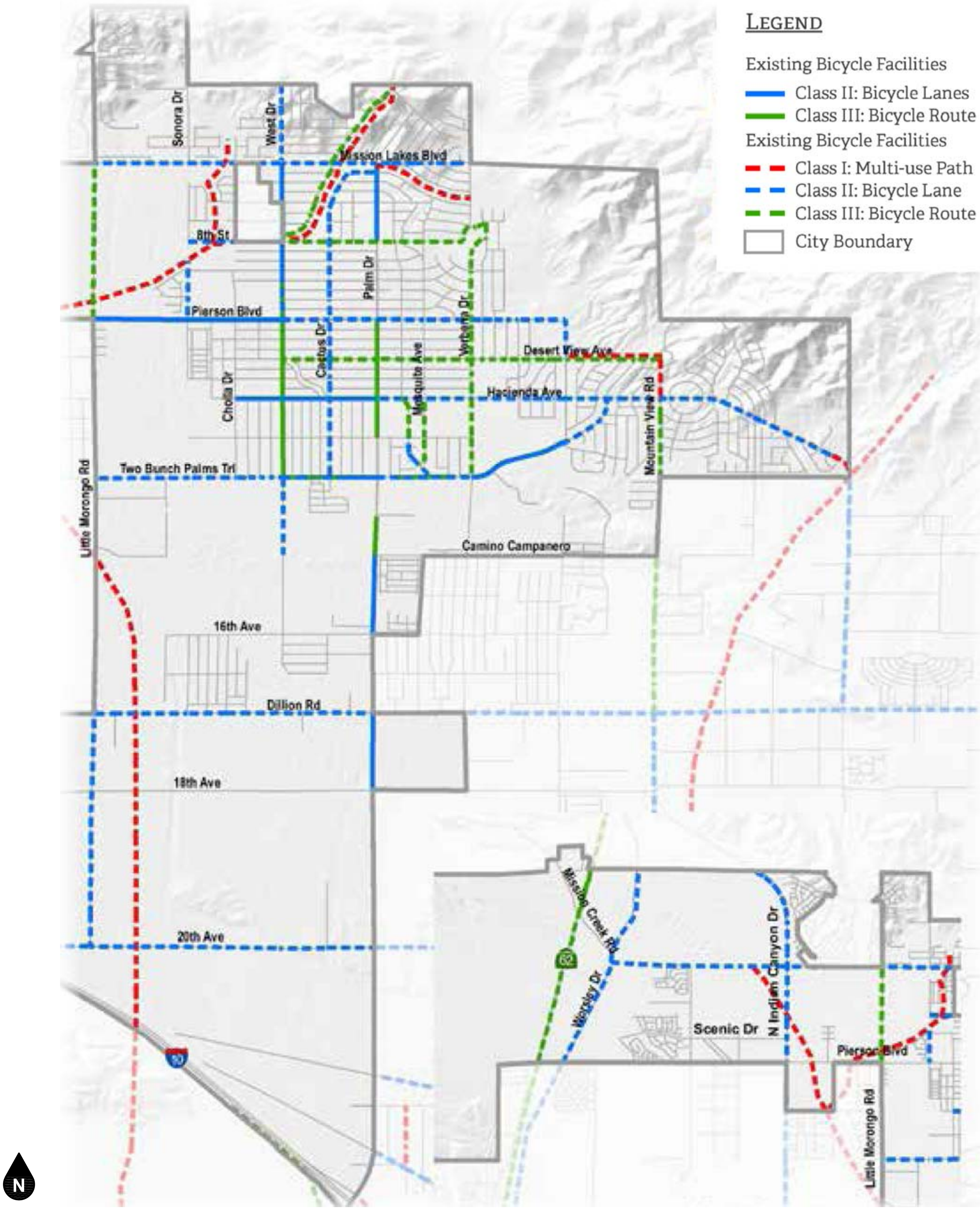
Source: SunLine Transit Agency

Figure 9
Existing Transit Routes



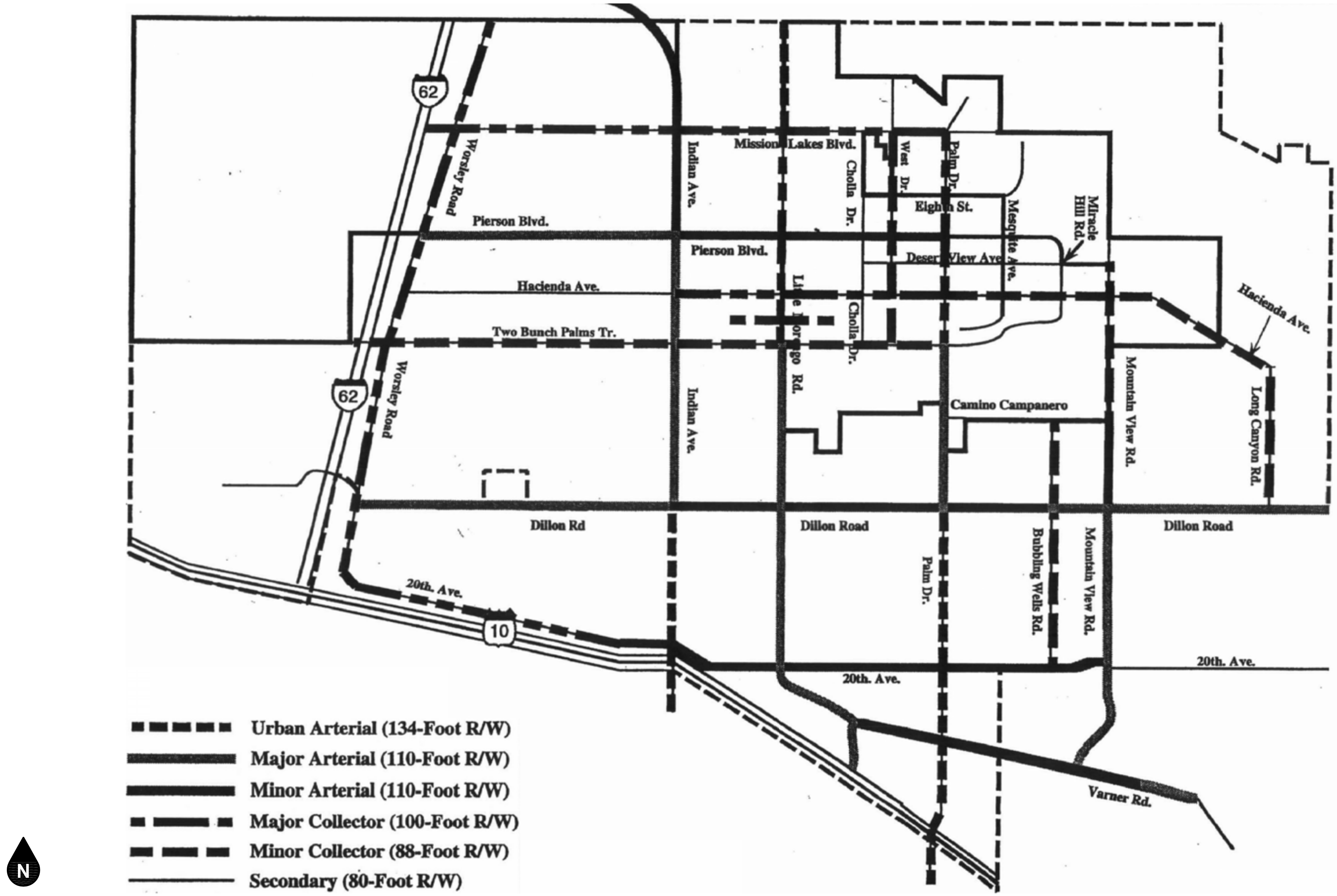
Source: City of Desert Hot Springs

Figure 10
Existing Bicycle Facilities



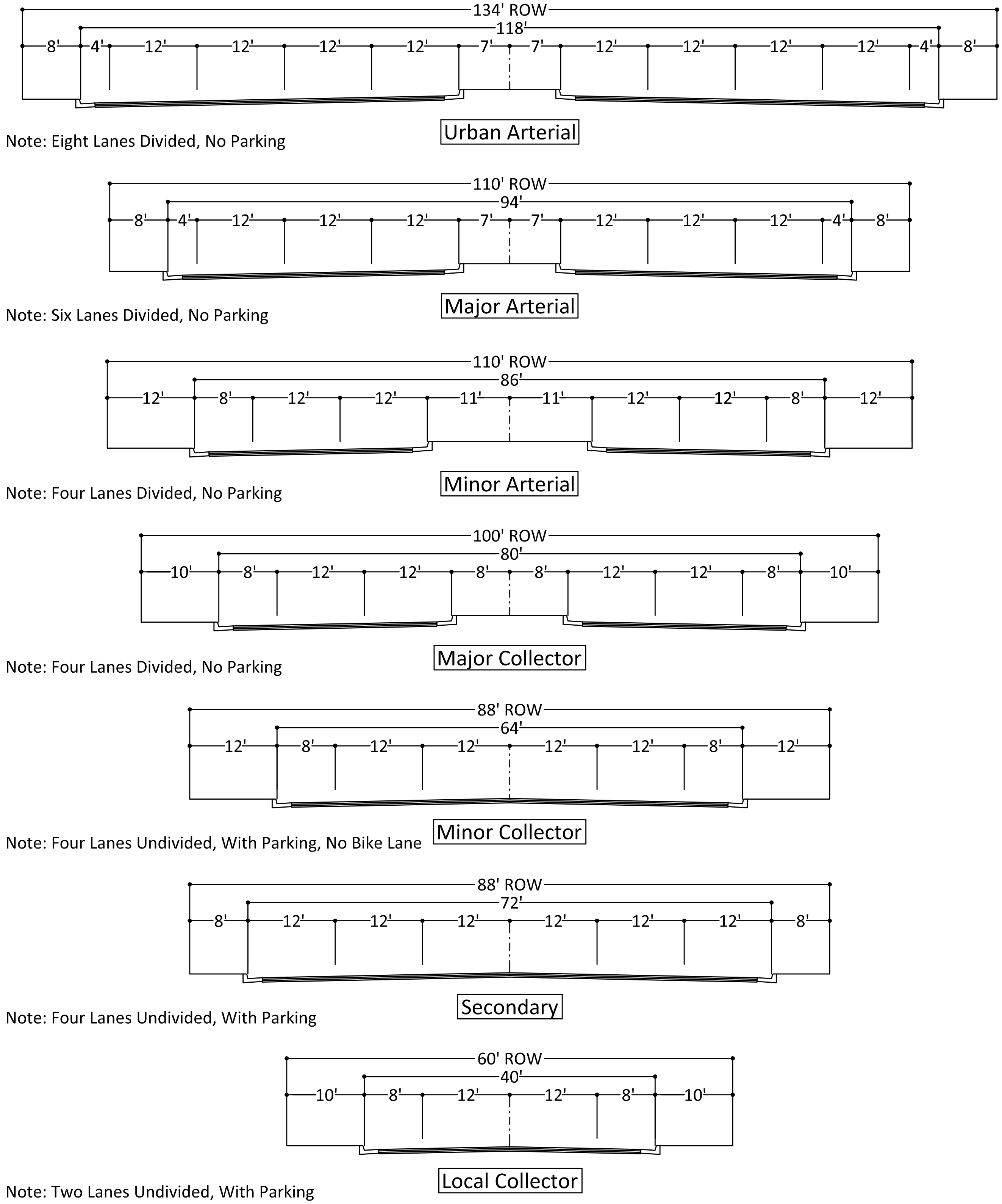
Source: City of Desert Hot Springs

Figure 11
Current Bicycle Facilities Master Plan



Source: City of Desert Hot Springs

Figure 12
Current General Plan Roadway Classification Map



Source: City of Desert Hot Springs

Figure 13
Current General Plan Roadway Cross-Sections

4. TRAFFIC MODEL PROJECTIONS

This section describes how current and proposed General Plan buildout traffic volumes were developed.

RIVERSIDE TRANSPORTATION ANALYSIS MODEL

To derive current and proposed General Plan buildout traffic volumes, the Riverside Transportation Analysis Model (RivTAM) was used. To provide a general point of reference, the current RivTAM data was used for the current General Plan buildout analysis. The Traffic Analysis Zones (TAZs) and baseline roadway network were refined for the proposed General Plan land use plan. The socio-economic data for the proposed General Plan were disaggregated by TAZ and input into RivTAM along with the refined roadway network and attributes. Model runs were performed by AFSHA Consulting in accordance with County of Riverside transportation modelling procedures.

Socio-Economic & Roadway Attributes

The socio-economic and roadway network utilized for the proposed General Plan model runs are provided in Appendix D. The following is a summary of the socio-economic data associated with the proposed General Plan buildout totals:

Type		Desert Hot Springs		Sphere of Influence		Planning Area	
		Existing (2018)	Proposed (2040)	Existing (2018)	Proposed (2040)	Existing (2018)	Proposed (2040)
Dwelling Units	SF[1]	8,358	22,214	7,292	18,025	15,650	40,239
	MF[2]	3,204	12,594	246	831	3,450	13,425
	Total	**11,562**	**34,808**	**7,538**	**18,856**	**19,100**	**53,664**
Population		29,390	88,476	19,160	47,926	48,550	136,402
Non-Residential Building SF[3]		2,655,016	13,140,605	559,250	7,209,099	3,214,266	20,349,704
Employees		4,162	14,611	1,020	5,920	5,182	20,531
Hotel/Motel Rooms		755	1,652	--	--	755	1,652
Students		6,326	12,900	763	7,100	7,089	20,000

Notes:
1) SF = Single Family Dwelling Units
2) MF = Multiple Family Units
3) Non-Residential Building = Commercial, Office, and Industrial buildings

Source: City of Desert Hot Springs and General Plan Update GIS data, California Department of Finance, Southern California Association of Governments, 2019.

Post-Processing Procedures

In accordance with standard post-processing procedures, the long-range traffic volume forecasts have been determined using a growth increment approach on the Year 2008 and Year 2040 roadway link volumes. This difference defines the growth in traffic volumes over the 32 year period. The incremental traffic growth was factored to reflect the forecast growth between existing traffic volumes (Year 2019) and Year 2040. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2040 condition was assumed. Since the increment between existing Year 2019 and Year 2040 is 21 years of the 32 year time frame, a factor of 0.65 (i.e., 21/32) was used.

To derive AM and PM peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research

Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure traffic growth. The end results of the post-processing procedures are future traffic volumes suitable for analysis. Post-processing worksheets are contained in Appendix E. Figures illustrating the final analysis volumes are presented in the following sections.

5. CURRENT GENERAL PLAN BUILDOUT

This section presents the current General Plan buildout traffic volume forecasts and operational analysis for the study roadway segments and intersections. The current General Buildout analysis is based on the current RivTAM data for the City of Desert Hot Springs. The current General Plan buildout analysis assumes the roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications used for prior General Plan updates as shown on Figure 14.

CURRENT GENERAL PLAN BUILDOUT TRAFFIC VOLUMES

Forecast average daily traffic volumes for current General Plan buildout conditions are shown on Figure 15. Forecast AM and PM peak hour intersection turning movement volumes for current General Plan buildout conditions are shown on Figure 16 and Figure 17.

CURRENT GENERAL PLAN BUILDOUT LEVEL OF SERVICE

Roadway Segment Level of Service

The study roadway segment capacity analysis and Levels of Service for current General Plan buildout conditions are shown in Table 5. As shown in Table 5, the study roadway segments forecast to operate within acceptable Levels of Service (D or better) for current General Plan Buildout conditions assuming roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications.

Intersection Level of Service

The study intersection Levels of Service for current General Plan buildout conditions without improvements are shown in Table 6. As shown in Table 6, 17 out of the 24 study intersections are forecast to operate at unacceptable Level of Service (E or F) for current General Plan buildout conditions without improvements. Detailed intersection Level of Service calculation worksheets are provided in Appendix C.

The following ultimate lane configurations are recommended to maintain the minimum acceptable Level of Service (D or better) for current General Plan buildout conditions:

- SR-62 (NS) at Indian Canyon Drive (EW) - #1
  - Northbound: One left turn lane, three through lanes, and one right turn lane
  - Southbound: Two left turn lanes, two through lanes, and one right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One shared left/through lane and one right turn lane

- SR-62 (NS) at Pierson Boulevard (EW) - #2
  - Install a traffic signal
  - Northbound: One left turn lane, three through lanes, and one right turn lane
  - Southbound: One left turn lane, three through lanes, and one right turn lane
  - Eastbound: One shared left/through lane, one through lane, and one right turn lane
  - Westbound: One shared left/through lane and one shared through/right turn lane

- SR-62 (NS) at Dillon Road (EW) - #3
  - Northbound: One left turn lane, three through lanes, and one right turn lane
  - Southbound: One left turn lane, three through lanes, and one right turn lane
  - Eastbound: One shared left/through lane and one right turn lane
  - Westbound: One shared left/through lane and one right turn lane

- Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW) - #4
    - No change from existing

- Indian Canyon Drive (NS) at Pierson Boulevard (EW) - #5
    - Install a traffic signal
    - Northbound: One left turn lane, one through lane, and one right turn lane
    - Southbound: One shared left/through/right turn lane
    - Eastbound: One shared left/through lane and one right turn lane
    - Westbound: One shared left/through/right turn lane

- Indian Canyon Drive (NS) at Two Bunch Palms Trail (EW) - #6
    - Install a traffic signal
    - Northbound: One shared left/through lane and one right turn lane
    - Southbound: One shared left/through lane and one right turn lane
    - Eastbound: One shared left/through/right turn lane
    - Westbound: One shared left/through/right turn lane

- Indian Canyon Drive (NS) at Dillon Road (EW) - #7
    - Install a traffic signal
    - Northbound: One left turn, two through lanes, and one right turn lane
    - Southbound: One left turn, two through lanes, and one right turn lane
    - Eastbound: One left turn lane, one through lane, and one right turn lane
    - Westbound: One left turn lane, one through lane, and one right turn lane

- Indian Canyon Drive (NS) at 20th Avenue (EW) - #8
    - Northbound: One left turn lane, two through lanes, and one shared through/right turn lane
    - Southbound: One left turn lane, two through lanes, and one shared through/right turn lane
    - Eastbound: One left turn lane, one through lane, and one right turn lane
    - Westbound: Two left turn lanes, one shared through/right turn lane, and one right turn lane

- Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW) - #9
    - No change from existing

- Little Morongo Road (NS) at Pierson Boulevard (EW) - #10
    - Install a traffic signal
    - Northbound: One left turn lane and one shared through/right turn lane
    - Southbound: One left turn lane and one shared through/right turn lane
    - Eastbound: One left turn lane, one through lane, and one right turn lane
    - Westbound: One left turn lane, one through lane, and one right turn lane

- Little Morongo Road (NS) at Two Bunch Palms Trail (EW) - #11
    - Install a traffic signal
    - Northbound: One left turn lane and one shared through/right turn lane
    - Southbound: One left turn lane and one shared through/right turn lane
    - Eastbound: One left turn lane and one shared through/right turn lane
    - Westbound: One left turn lane and one shared through/right turn lane

- Little Morongo Road (NS) at Dillon Road (EW) - #12
    - Install a traffic signal
    - Northbound: One left turn lane, one through lane, and one right turn lane
    - Southbound: One left turn lane, one through lane, and one right turn lane
    - Eastbound: One left turn lane and one shared through/right turn lane
    - Westbound: Two left turn lanes, one through lane and one right turn lane

- Little Morongo Road (NS) at 20th Avenue (EW) - #13
  - Construct new intersection with all way stop control
  - Northbound: One shared left/through/right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One left turn lane and one shared through/right turn lane
  - Westbound: One shared left/through/right turn lane

- Palm Drive (NS) at Mission Lakes Boulevard (EW) - #14
  - No change from existing

- Palm Drive (NS) at Pierson Boulevard (EW) - #15
  - No change from existing

- Palm Drive (NS) at Hacienda Avenue (EW) - #16
  - No change from existing

- Palm Drive (NS) at Two Bunch Palms Trails (EW) - #17
  - No change from existing

- Palm Drive (NS) at Dillon Road (EW) - #18
  - Northbound: One left turn lane, two through lanes, and one right turn lane
  - Southbound: One left turn lane, three through lanes, and one right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: One left turn lane, one through lane, and one right turn lane

- Palm Drive (NS) at 20th Avenue (EW) - #19
  - Install a traffic signal
  - Northbound: One left turn lane, two through lanes, and one right turn lane
  - Southbound: One left turn lane, two through lanes, and one right turn lane
  - Eastbound: One left turn lane and one shared through/right turn lane
  - Westbound: Two left turn lanes and one shared through/right turn lane

- Palm Drive (NS) at Varner Road (EW) - #20
  - Northbound: One left turn lane, one through lane, and one shared through/right turn lane
  - Southbound: Two left turn lanes, one through lane, and one shared through/right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One shared left/through/right turn lane

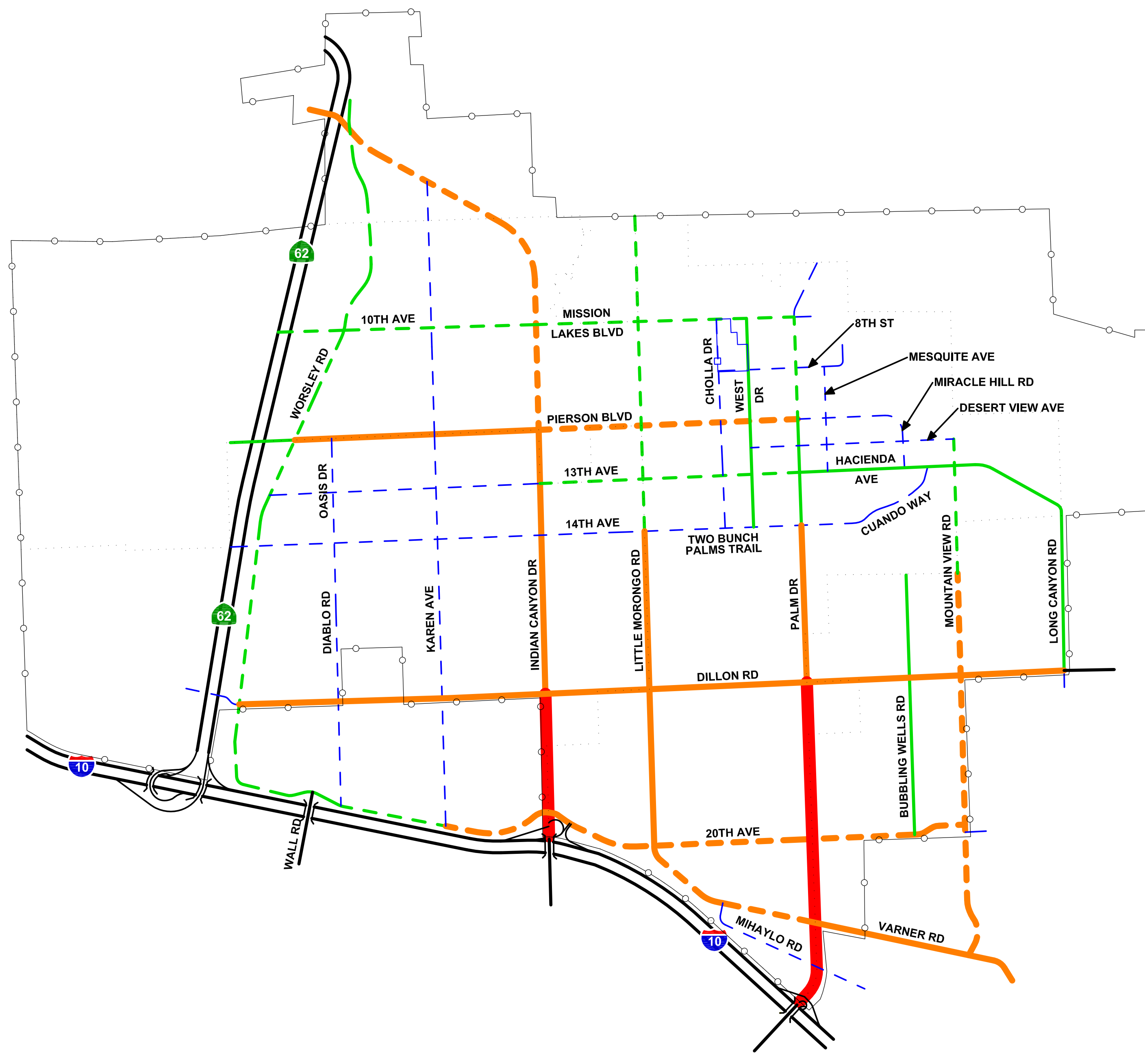
- Mountain View Road (NS) at Hacienda Avenue (EW) - #21
  - No change from existing

- Mountain View Road (NS) at Dillon Road (EW) - #22
  - Northbound: One left turn lane, one through lane, and one right turn lane
  - Southbound: One left turn lane, one through lane, and one right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: One left turn lane and one shared through/right turn lane

- Mountain View Road (NS) at Varner Road (EW) - #23
  - Install a traffic signal
  - Southbound: One left turn lane and one right turn lane
  - Eastbound: Two left turn lanes and one shared through lane
  - Westbound: One through lane and two right turn lanes

- <u>Long Canyon Road (NS) at Dillon Road (EW) - #24</u>
  - Northbound: One shared left/through/right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One left turn lane, one through lane, and one shared through/right turn lane
  - Westbound: One left turn lane and one shared through/right turn lane

Table 7 shows the study intersection Levels of Service for current General Plan buildout conditions with improvements. The study intersections are forecast to operate within acceptable Levels of Service (D or better) for current General Plan Buildout conditions with improvements (see Table 7).



Source: City of Desert Hot Springs

Legend

- City Boundary
- City Sphere of Influence
- Urban Arterial
- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Secondary
- Local Collector

Figure 14
Baseline General Plan Roadway Classifications

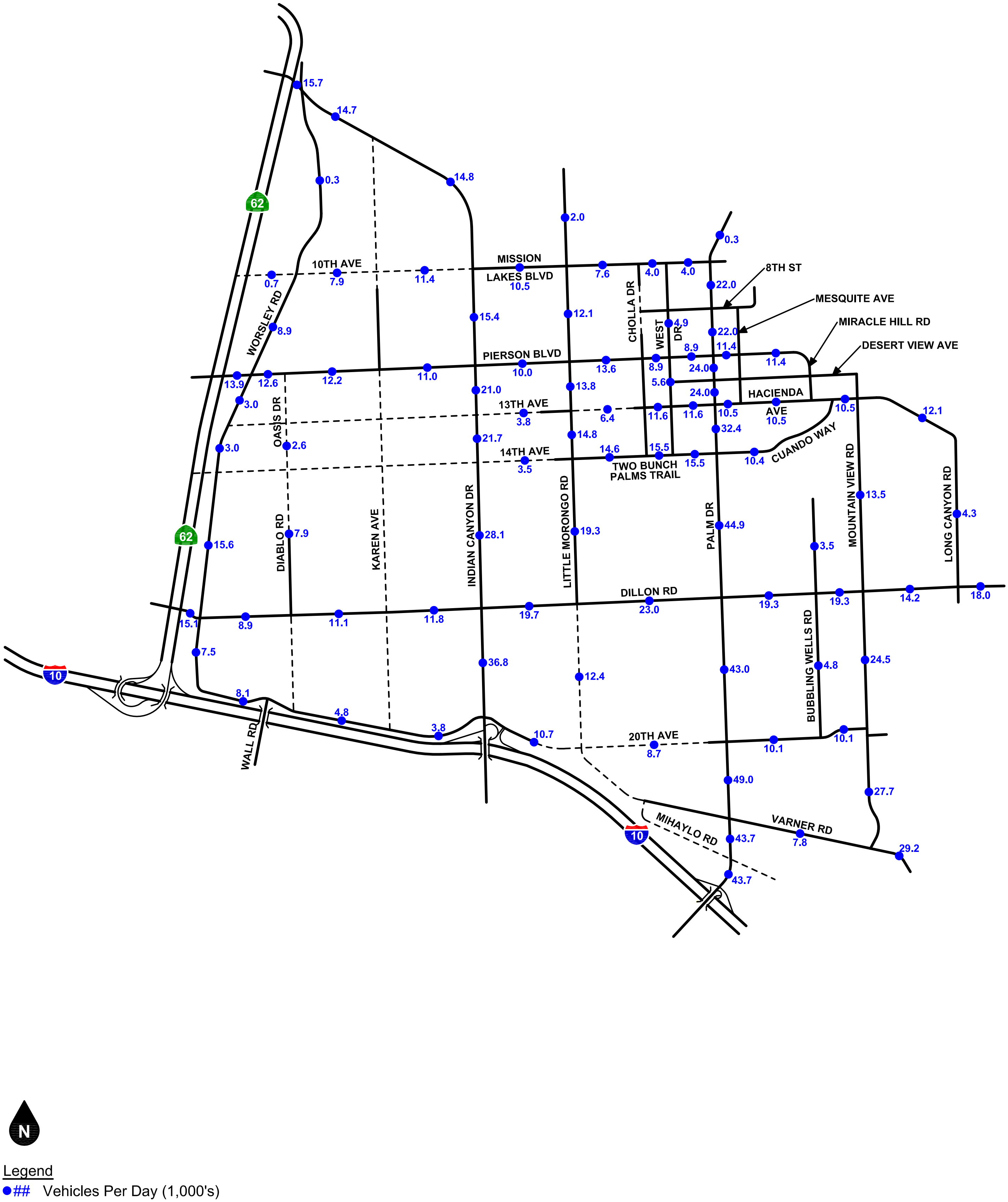
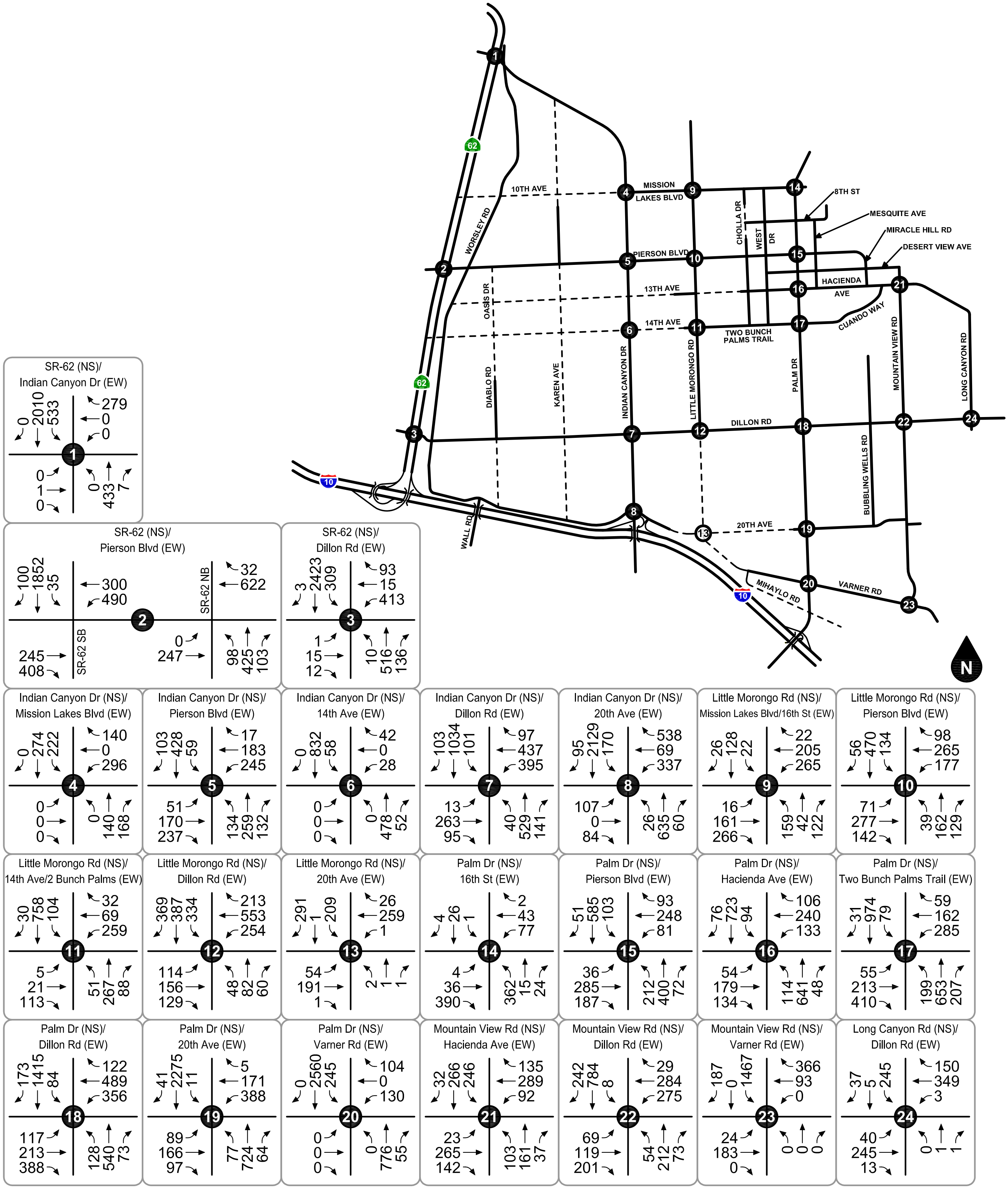
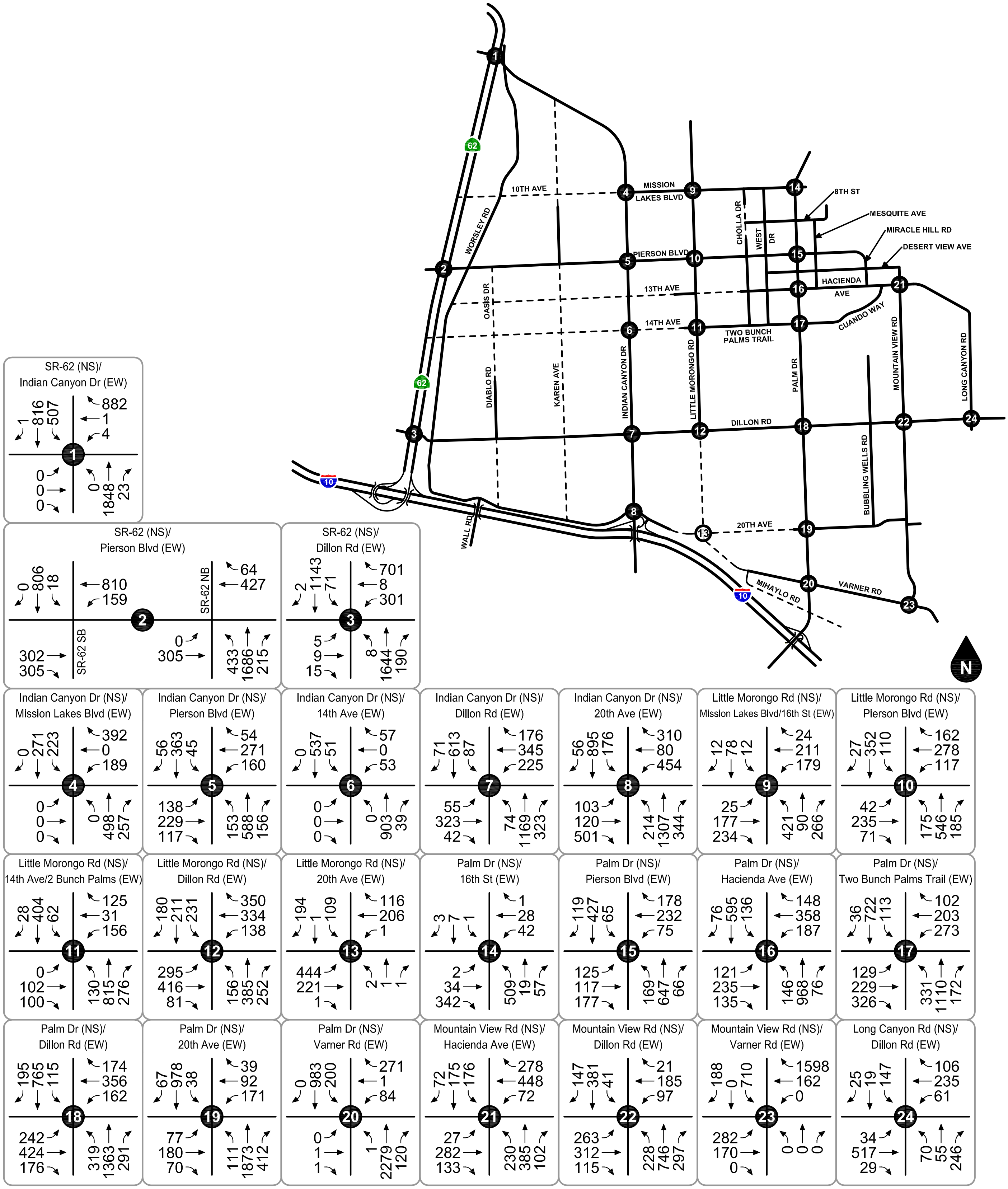


Figure 15
Current General Plan Buildout Average Daily Traffic Volumes



Legend
Study Intersection

Figure 16
Current General Plan Buildout
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

Figure 17
Current General Plan Buildout
PM Peak Hour Intersection Turning Movement Volumes

Table 5 (1 of 2)
Current General Plan Buildout Roadway Segment Levels of Service

ID	Roadway	Segment	Classification	Number of Lanes[1] Existing	Number of Lanes[1] Buildout	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R1.	Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Minor Collector	2	4U	26,000	300	0.01	A
R2.	Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Minor Collector	2	4U	26,000	8,900	0.34	A
R3.	Worsley Rd	Pierson Blvd and Hacienda Blvd	Minor Collector	2	4U	26,000	3,000	0.12	A
R4.	Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Minor Collector	2	4U	26,000	3,000	0.12	A
R5.	Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Minor Collector	2	4U	26,000	15,600	0.60	A
R6.	Worsley Rd	Dillon Rd and 20th Ave	Minor Collector	2	4U	26,000	7,500	0.29	A
R7.	Oasis Dr	13th Ave and 14th Ave	Secondary	n/a	4U	26,000	2,600	0.10	A
R8.	Diablo Rd	14th Ave and Dillon Rd	Local Collector	2	2U	13,000	7,900	0.61	B
R14.	Indian Canyon Dr	SR-62 and Worsley Rd	Minor Arterial	2	4D	36,000	15,700	0.44	A
R15.	Indian Canyon Dr	Worsley Rd and Karen Ave	Minor Arterial	2	4D	36,000	14,700	0.41	A
R16.	Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Minor Arterial	2	4D	36,000	14,800	0.41	A
R17.	Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Minor Arterial	2	4D	36,000	15,400	0.43	A
R18.	Indian Canyon Dr	Pierson Blvd and 13th Ave	Major Arterial	2	6D	54,000	21,000	0.39	A
R19.	Indian Canyon Dr	13th Ave to 14th Ave	Major Arterial	2	6D	54,000	21,700	0.40	A
R20.	Indian Canyon Dr	14th Ave and Dillon Rd	Major Arterial	2	6D	54,000	28,100	0.52	A
R21.	Indian Canyon Dr	Dillon Rd and 20th Ave	Urban Arterial	2	8D	72,000	36,800	0.51	A
R22.	Little Morongo Rd	north of Mission Lakes Blvd	Minor Collector	2	4U	26,000	2,000	0.08	A
R23.	Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Major Collector	2	4D	36,000	12,100	0.34	A
R24.	Little Morongo Rd	Pierson Blvd and Hacienda Ave	Major Collector	2	4D	36,000	13,800	0.38	A
R25.	Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Major Collector	2	4D	36,000	14,800	0.41	A
R26.	Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Major Arterial	2	6D	54,000	19,300	0.36	A
R27.	Little Morongo Rd	Dillon Rd and 20th Ave	Major Arterial	n/a	6D	54,000	12,400	0.23	A
R28.	West Dr	8th St and Pierson Blvd	Minor Collector	2	4U	26,000	4,900	0.19	A
R29.	West Dr	Hacienda Ave and Two Bunch Palms Trail	Minor Collector	2	4U	26,000	5,600	0.22	A
R30.	Palm Dr	north of Mission Lakes Blvd	Secondary	2	4U	26,000	300	0.01	A
R31.	Palm Dr	Mission Lakes Blvd and Pierson Blvd	Minor Collector	4	4U	26,000	22,000	0.85	D
R32.	Palm Dr	Pierson Blvd and Hacienda Ave	Major Collector	4	4D	36,000	24,000	0.67	B
R33.	Palm Dr	Hacienda Ave and Two Bunch Palms Trail	Major Collector	4	4D	36,000	32,400	0.90	D
R34.	Palm Dr	Two Bunch Palms Trail and Dillon Rd	Major Arterial	4	6D	54,000	44,900	0.83	D
R35.	Palm Dr	Dillon Rd and 20th Ave	Urban Arterial	4	8D	72,000	43,000	0.60	A
R36.	Palm Dr	20th Ave and Varner Rd	Urban Arterial	4	8D	72,000	49,000	0.68	B
R37.	Palm Dr	Varner Rd and I-10 Freeway	Urban Arterial	4	8D	72,000	43,700	0.61	B
R38.	Bubbling Wells Rd	north of Dillon Rd	Minor Collector	2	4U	26,000	3,500	0.13	A
R39.	Bubbling Wells Rd	Dillon Rd and 20th Ave	Minor Collector	2	4U	26,000	4,800	0.18	A
R40.	Mountain View Rd	Hacienda Ave and Dillon Rd	Minor Arterial	2	4D	36,000	13,500	0.38	A
R41.	Mountain View Rd	Dillon Rd and 20th Ave	Minor Arterial	2	4D	36,000	24,500	0.68	B
R42.	Mountain View Rd	20th Ave and Varner Rd	Minor Arterial	2	4D	36,000	27,700	0.77	C
R43.	Long Canyon Rd	north of Dillon Rd	Minor Collector	2	4U	26,000	4,300	0.17	A
R44.	Mission Lakes Blvd	SR-62 and Worsley Rd	Major Collector	n/a	4D	36,000	700	0.02	A
R45.	Mission Lakes Blvd	Worsley Rd and Karen Rd	Minor Collector	n/a	4U	26,000	7,900	0.30	A
R46.	Mission Lakes Blvd	Karen Rd and Indian Canyon Dr	Minor Collector	n/a	4U	26,000	11,400	0.44	A
R47.	Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Collector	2	4U	26,000	10,500	0.40	A
R48.	Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Minor Collector	2	4U	26,000	7,600	0.29	A
R49.	Mission Lakes Blvd	Cholla Dr and Palm Dr	Minor Collector	2	4U	26,000	4,000	0.15	A
R50.	Pierson Blvd	SR-62 and Worsley Rd	Major Arterial	2	6D	54,000	13,900	0.26	A
R51.	Pierson Blvd	Worsley Rd and Diablo Rd	Major Arterial	2	6D	54,000	12,600	0.23	A
R52.	Pierson Blvd	Diablo Rd and Karen Ave	Major Arterial	2	6D	54,000	12,200	0.23	A
R53.	Pierson Blvd	Karen Ave and Indian Canyon Dr	Major Arterial	2	6D	54,000	11,000	0.20	A

Table 5 (2 of 2)
Current General Plan Buildout Roadway Segment Levels of Service

ID	Roadway	Segment	Classification	Number of Lanes[1] Existing	Buildout	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R54.	Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	10,000	0.28	A
R55.	Pierson Blvd	Little Morongo Rd and Cholla Dr	Minor Arterial	4	4D	36,000	13,600	0.38	A
R56.	Pierson Blvd	Cholla Dr and Palm Dr	Minor Arterial	4	4D	36,000	8,900	0.25	A
R57.	Pierson Blvd	east of Palm Dr	Secondary	4	4U	26,000	11,400	0.44	A
R60.	Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	Minor Collector	n/a	4U	26,000	3,800	0.15	A
R61.	Hacienda Ave	Little Morongo Rd and Cholla Dr	Minor Collector	n/a	4U	26,000	6,400	0.25	A
R62.	Hacienda Ave	Cholla Dr and Palm Dr	Minor Collector	2	4U	26,000	11,600	0.45	A
R63.	Hacienda Ave	Palm Dr and Mountain View Rd	Minor Collector	2	4U	26,000	10,500	0.40	A
R64.	Hacienda Ave	east of Mountain View Rd	Minor Collector	2	4U	26,000	12,100	0.47	A
R69.	Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	Secondary	n/a	4U	26,000	3,500	0.13	A
R70.	Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Secondary	2	4U	26,000	14,600	0.56	A
R71.	Two Bunch Palms Trail	Cholla Dr and Palm Dr	Secondary	4	4U	26,000	15,500	0.60	A
R72.	Two Bunch Palms Trail	east of Palm Dr	Secondary	2	4U	26,000	10,400	0.40	A
R73.	Dillon Rd	SR-62 and Worsley Rd	Major Arterial	2	6D	54,000	15,100	0.28	A
R74.	Dillon Rd	Worsley Rd and Diablo Rd	Major Arterial	2	6D	54,000	8,900	0.16	A
R75.	Dillon Rd	Diablo Rd and Karen Ave	Major Arterial	2	6D	54,000	11,100	0.21	A
R76.	Dillon Rd	Karen Ave and Indian Canyon Dr	Major Arterial	2	6D	54,000	11,800	0.22	A
R77.	Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	19,700	0.55	A
R78.	Dillon Rd	Little Morongo Rd and Palm Dr	Minor Arterial	2	4D	36,000	23,000	0.64	B
R79.	Dillon Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	4D	36,000	19,300	0.54	A
R80.	Dillon Rd	Mountain View Rd and Long Canyon Rd	Major Arterial	2	6D	54,000	14,200	0.26	A
R81.	Dillon Rd	east of Long Canyon Rd	Major Arterial	2	6D	54,000	18,000	0.33	A
R82.	20th Ave	Worsley Rd and Diablo Rd	Minor Collector	2	4U	26,000	8,100	0.31	A
R83.	20th Ave	Diablo Rd and Karen Ave	Minor Collector	2	4U	26,000	4,800	0.18	A
R84.	20th Ave	Karen Ave and Indian Canyon Dr	Minor Collector	2	4U	26,000	3,800	0.15	A
R85.	20th Ave	Indian Canyon Dr and Little Morongo Rd	Minor Arterial	2	4D	36,000	10,700	0.30	A
R86.	20th Ave	Little Morongo Rd and Palm Dr	Minor Arterial	NA	4D	36,000	8,700	0.24	A
R87.	20th Ave	Palm Dr and Mountain View Rd	Minor Arterial	2	4D	36,000	10,100	0.28	A
R89.	Varner Rd	Palm Dr and Mountain View Rd	Minor Arterial	2	4D	36,000	7,800	0.22	A
R90.	Varner Rd	east of Mountain View Rd	Minor Arterial	2	4D	36,000	29,200	0.81	D

Notes:
(1) #D = #-Lanes Divided; #U = #-Lanes Undivded
(2) ADT = Average Daily Traffic; V/C = Volume/Capacity; LOS = Level of Service

Table 6
Current General Plan Buildout Without Improvements Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	SR-62 (NS) at Indian Canyon Dr (EW)	TS	22.3	C	224.0	F
2A.	SR-62 SB (NS) at Pierson Blvd (EW)	CSS	10,000.0	F	10,000.0	F
2B.	SR-62 NB (NS) at Pierson Blvd (EW)	CSS	10,000.0	F	10,000.0	F
3.	SR-62 (NS) at Dillon Rd (EW)	TS	83.8	F	83.6	F
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	TS	18.3	B	20.9	C
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	AWS	139.7	F	247.7	F
6.	Indian Canyon Dr (NS) at Two Bunch Palms Trail (EW)	CSS	48.4	E	104.1	F
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	AWS	486.4	F	518.9	F
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	TS	30.4	C	65.8	E
9.	Little Morongo Rd (NS) at Mission Lakes Blvd (EW)	AWS	15.2	C	27.6	D
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	AWS	149.7	F	279.3	F
11.	Little Morongo Rd (NS) at Two Bunch Palms Trail (EW)	AWS	198.1	F	392.0	F
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	AWS	345.4	F	318.9	F
13.	Little Morongo Rd (NS) at 20th Ave (EW)	AWS	16.8	C	44.0	E
14.	Palm Dr (NS) at Mission Lakes Boulevard (EW)	AWS	18.8	C	32.3	D
15.	Palm Dr (NS) at Pierson Blvd (EW)	TS	24.5	C	22.8	C
16.	Palm Dr (NS) at Hacienda Ave (EW)	TS	21.9	C	28.9	C
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	TS	45.3	D	38.3	D
18.	Palm Dr (NS) at Dillon Rd (EW)	TS	66.7	E	41.6	D
19.	Palm Dr (NS) at 20th Ave (EW)	CSS	10,000.0	F	10,000.0	F
20.	Palm Dr (NS) at Varner Rd (EW)	TS	26.0	C	66.9	E
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	TS	28.5	C	50.7	D
22.	Mountain View Rd (NS) at Dillon Rd (EW)	TS	87.0	F	72.7	E
23.	Mountain View Rd (NS) at Varner Rd (EW)	AWS	568.7	F	588.3	F
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	AWS	20.2	C	61.3	F

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

Table 7
Current General Plan Buildout With Improvements Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	SR-62 (NS) at Indian Canyon Dr (EW)	TS	13.0	B	37.0	D
2.	SR-62 (NS) at Pierson Blvd (EW)	TS	20.3	C	27.6	C
3.	SR-62 (NS) at Dillon Rd (EW)	TS	34.8	C	48.0	D
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	TS	18.3	B	20.9	C
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	TS	17.6	B	32.9	C
6.	Indian Canyon Dr (NS) at 14th Ave (EW)	TS	4.7	A	5.8	A
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	TS	44.4	D	28.6	C
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	TS	30.2	C	54.6	D
9.	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	AWS	15.2	C	27.6	D
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	TS	25.4	C	31.2	C
11.	Little Morongo Rd (NS) at 14th Ave/Two Bunch Palms Trail (EW)	TS	31.6	C	53.1	D
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	TS	21.6	C	36.8	D
13.	Little Morongo Rd (NS) at 20th Ave (EW)	AWS	16.7	C	19.6	C
14.	Palm Dr (NS) at 16th St (EW)	AWS	18.8	C	32.3	D
15.	Palm Dr (NS) at Pierson Blvd (EW)	TS	24.5	C	22.8	C
16.	Palm Dr (NS) at Hacienda Ave (EW)	TS	21.9	C	28.9	C
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	TS	45.3	D	38.3	D
18.	Palm Dr (NS) at Dillon Rd (EW)	TS	43.8	D	40.6	D
19.	Palm Dr (NS) at 20th Ave (EW)	TS	43.4	D	18.4	B
20.	Palm Dr (NS) at Varner Rd (EW)	TS	26.5	C	49.4	D
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	TS	28.5	C	50.7	D
22.	Mountain View Rd (NS) at Dillon Rd (EW)	TS	35.9	D	32.4	C
23.	Mountain View Rd (NS) at Varner Rd (EW)	TS	52.4	D	54.9	D
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	AWS	25.1	D	28.6	D

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

6. PROPOSED GENERAL PLAN BUILDOUT

This section presents the Proposed General Plan Buildout traffic volume forecasts and operational analysis for the study roadway segments and intersections. For the Proposed General Plan Buildout analysis, the Traffic Analysis Zones (TAZs) and baseline roadway network were refined for the proposed General Plan land use plan. The baseline roadway classifications are based on the classification map used for prior General Plan updates as shown in the previous section on Figure 14.

PROPOSED GENERAL PLAN BUILDOUT TRAFFIC VOLUMES

Forecast average daily traffic volumes for Proposed General Plan Buildout conditions are shown on Figure 18. Forecast AM and PM peak hour intersection turning movement volumes for Proposed General Plan Buildout conditions are shown on Figure 19 and Figure 20.

PROPOSED GENERAL PLAN BUILDOUT LEVEL OF SERVICE

Roadway Segment Level of Service

The baseline study roadway segment capacity analysis and Levels of Service for Proposed General Plan Buildout conditions are shown in Table 8. As shown in Table 8, the study roadway segments forecast to operate within acceptable Levels of Service (D or better) for Proposed General Plan Buildout conditions assuming roadway segments are constructed at their ultimate condition in accordance with the baseline roadway classifications.

The baseline roadway classifications are forecast to result in more than sufficient roadway capacity at several roadway segments. Additionally, the nomenclature used in the current General Plan and the baseline roadway classifications is unusual since collector roadways are typically lower in the hierarchy than secondary roadways. Therefore, Table 8 also shows the roadway segment capacity analysis and Levels of Service with recommended modifications to the roadway system where excess capacity is anticipated and with the following recommended classifications

Proposed Classifications	Right-of-Way	Number of Lanes	Level of Service E Capacity
Urban Arterial	134 feet	8D	72,000
Primary I	110 feet	6D	54,000
Primary II	110 feet	4D	36,000
Secondary I	100 feet	4D	36,000
Secondary II	80-88 feet	4U	26,000
Collector	72 feet	2D	18,000
Local Collector	60 feet	2U	13,000

As shown in Table 8, the study roadway segments forecast to operate within acceptable Levels of Service (D or better) for Proposed General Plan Buildout conditions with the recommended roadway classifications.

Intersection Level of Service

The study intersection Levels of Service for Proposed General Plan buildout conditions without improvements are shown in Table 9. As shown in Table 9, 16 out of the 24 study intersections are forecast to operate at unacceptable Level of Service (E or F) for Proposed General Plan Buildout conditions without improvements. Detailed intersection Level of Service calculation worksheets are provided in Appendix C.

The following ultimate lane configurations are recommended to maintain the minimum acceptable Level of Service (D or better) for Proposed General Plan Buildout conditions:

- SR-62 (NS) at Indian Canyon Drive (EW) - #1
  - Northbound: One left turn lane, three through lanes, and one right turn lane
  - Southbound: Two left turn lanes, two through lanes, and one right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One shared left/through lane and two right turn lanes

- SR-62 (NS) at Pierson Boulevard (EW) - #2
  - Install a traffic signal
  - Northbound: One left turn lane, two through lanes, and one right turn lane
  - Southbound: One left turn lane, two through lanes, and one right turn lane
  - Eastbound: One shared left/through lane and one right turn lane
  - Westbound: One left turn lane and one shared through/right turn lane

- SR-62 (NS) at Dillon Road (EW) - #3
  - No change from existing

- Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW) - #4
  - Northbound: One shared left/through lane and one right turn lane
  - Southbound: One left turn lane and one shared through/right turn lane
  - Eastbound: One shared left/through/right lane
  - Westbound: One left turn lane and one shared through/right turn lane

- Indian Canyon Drive (NS) at Pierson Boulevard (EW) - #5
  - Install a traffic signal
  - Northbound: One left turn lane, one through lane, and one right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One shared left/through lane and one shared through/right turn lane
  - Westbound: One left turn lane and one shared through/right turn lane

- Indian Canyon Drive (NS) at Two Bunch Palms Trail (EW) - #6
  - Install a traffic signal
  - Northbound: One shared left/through/right turn lane
  - Southbound: One left turn lane and one shared through/right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One shared left/through/right turn lane

- Indian Canyon Drive (NS) at Dillon Road (EW) - #7
  - Install a traffic signal
  - Northbound: One left turn, two through lanes, and one right turn lane
  - Southbound: One left turn, two through lanes, and one right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: Two left turn lanes, one through lane, and one right turn lane

- Indian Canyon Drive (NS) at 20th Avenue (EW) - #8
  - Northbound: One left turn lane, two through lanes, and one right turn lane
  - Southbound: One left turn lane, two through lanes, and one shared through/right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: Two left turn lanes, one shared through/right turn lane, and one right turn lane

- Indian Canyon Drive (NS) at Mission Lakes Boulevard (EW) - #9
  - No change from existing

- Little Morongo Road (NS) at Pierson Boulevard (EW) - #10
  - Install a traffic signal
  - Northbound: One shared left/through/right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: One left turn lane, one through lane, and one right turn lane

- Little Morongo Road (NS) at Two Bunch Palms Trail (EW) - #11
  - Install a traffic signal
  - Northbound: One left turn lane, one through lane, and one right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One left turn lane, one through lane, and one right turn lane

- Little Morongo Road (NS) at Dillon Road (EW) - #12
  - Install a traffic signal
  - Northbound: One left turn lane, one through lane, and one right turn lane
  - Southbound: One left turn lane, one through lane, and one right turn lane
  - Eastbound: Two left turn lanes and one shared through/right turn lane
  - Westbound: One left turn lane and one shared through/right turn lane

- Little Morongo Road (NS) at 20th Avenue (EW) - #13
  - Construct new intersection with all way stop control
  - Northbound: One left turn lane and one shared through/right turn lane
  - Southbound: One shared left/through/right turn lane
  - Eastbound: One shared left/through/right turn lane
  - Westbound: One shared left/through/right turn lane

- Palm Drive (NS) at Mission Lakes Boulevard (EW) - #14
  - No change from existing

- Palm Drive (NS) at Pierson Boulevard (EW) - #15
  - No change from existing

- Palm Drive (NS) at Hacienda Avenue (EW) - #16
  - No change from existing

- Palm Drive (NS) at Two Bunch Palms Trails (EW) - #17
  - No change from existing

- Palm Drive (NS) at Dillon Road (EW) - #18
  - Northbound: Two left turn lanes, two through lanes, and one right turn lane
  - Southbound: One left turn lane, two through lanes, and one right turn lane
  - Eastbound: One left turn lane, one through lane, and one right turn lane
  - Westbound: Two left turn lanes, one through lane, and one right turn lane

- Palm Drive (NS) at 20th Avenue (EW) - #19
    - Install a traffic signal
    - Northbound: One left turn lane, two through lanes, and one right turn lane
    - Southbound: One left turn lane, three through lanes, and one right turn lane
    - Eastbound: One shared left/through/right turn lane
    - Westbound: One shared left/through/right turn lane

- Palm Drive (NS) at Varner Road (EW) - #20
    - Northbound: One left turn lane, three through lanes, and one right turn lane
    - Southbound: One left turn lane, three through lanes, and one right turn lane
    - Eastbound: One left turn lane, one through lane, and one right turn lane
    - Westbound: Two left turn lanes, two through lanes, and one right turn lane

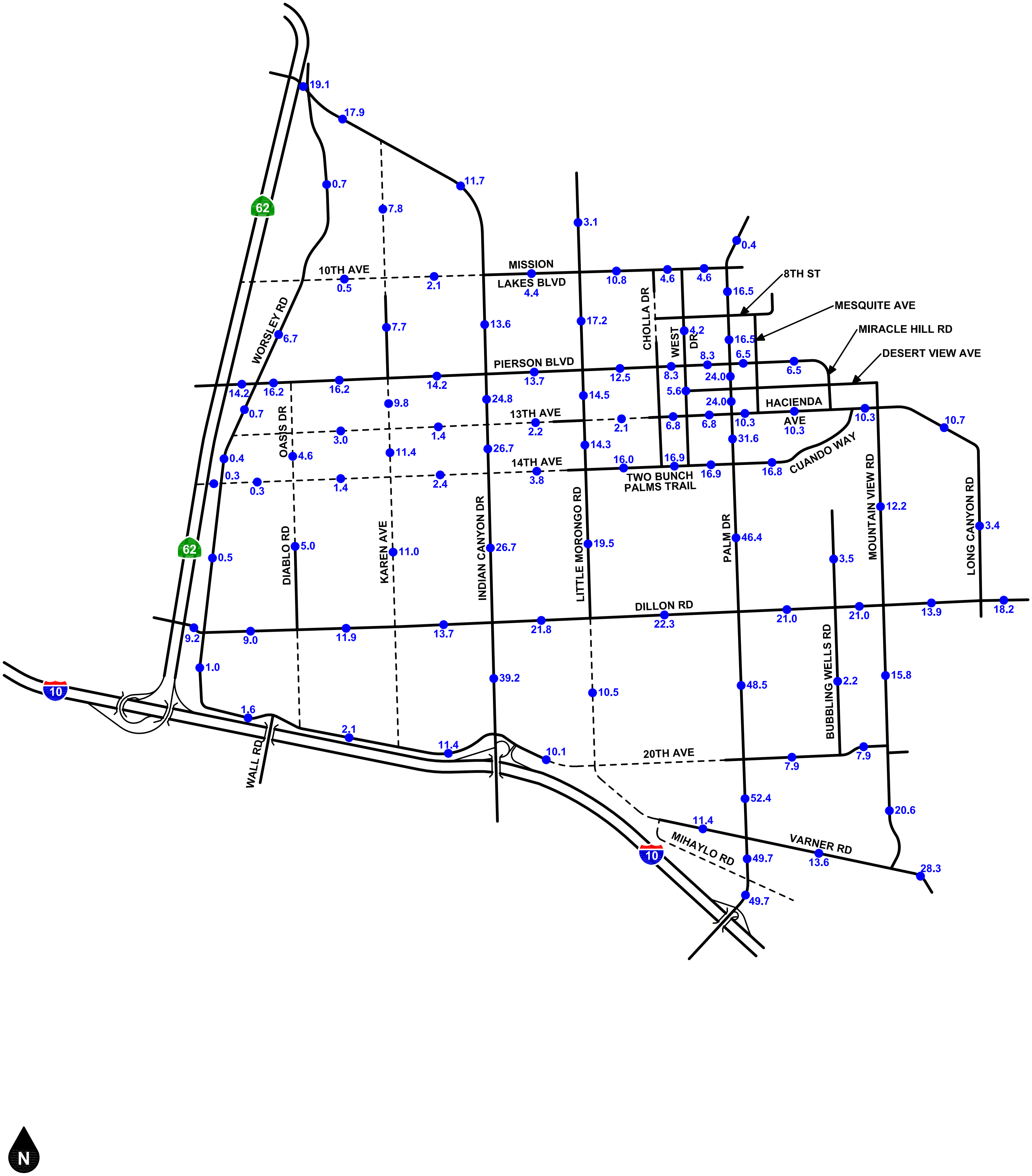
- Mountain View Road (NS) at Hacienda Avenue (EW) - #21
    - No change from existing

- Mountain View Road (NS) at Dillon Road (EW) - #22
    - Northbound: One left turn lane and one shared through/right turn lane
    - Southbound: One left turn lane and one shared through/right turn lane
    - Eastbound: One left turn lane and one shared through/right turn lane
    - Westbound: Two left turn lanes and one shared through/right turn lane

- Mountain View Road (NS) at Varner Road (EW) - #23
    - Install a traffic signal
    - Southbound: One left turn lane and one right turn lane
    - Eastbound: One shared through/right turn lane
    - Westbound: One through lane and one right turn lane

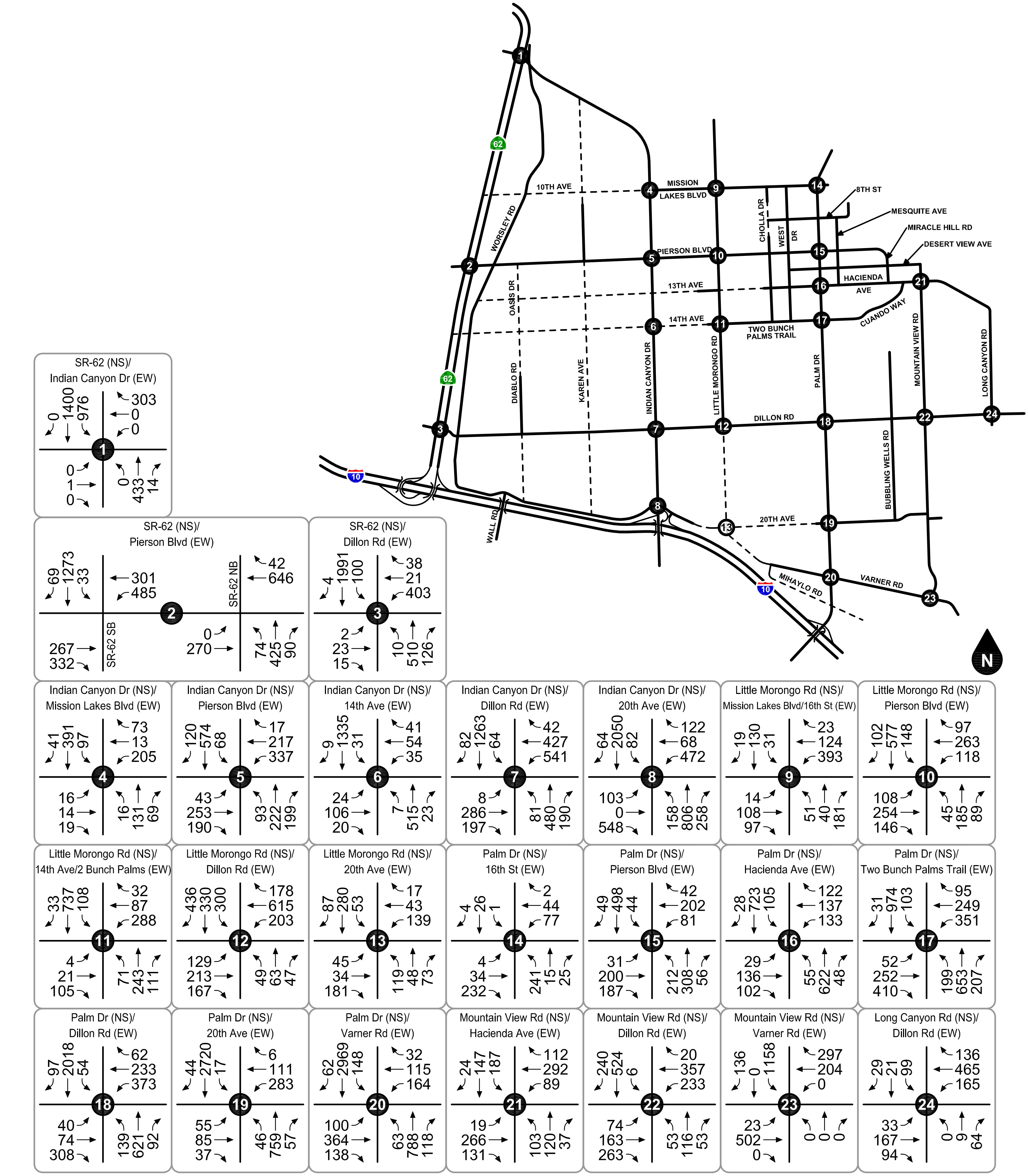
- Long Canyon Road (NS) at Dillon Road (EW) - #24
    - Northbound: One shared left/through lane and one right turn lane
    - Southbound: One left turn lane and one shared through/right turn lane
    - Eastbound: One left turn lane, one through lane, and one shared through/right turn lane
    - Westbound: One left turn lane, one through lane, and one right turn lane

Table 10 shows the study intersection Levels of Service for Proposed General Plan Buildout conditions with improvements. The study intersections are forecast to operate within acceptable Levels of Service (D or better) for Proposed General Plan Buildout conditions with improvements (see Table 10).



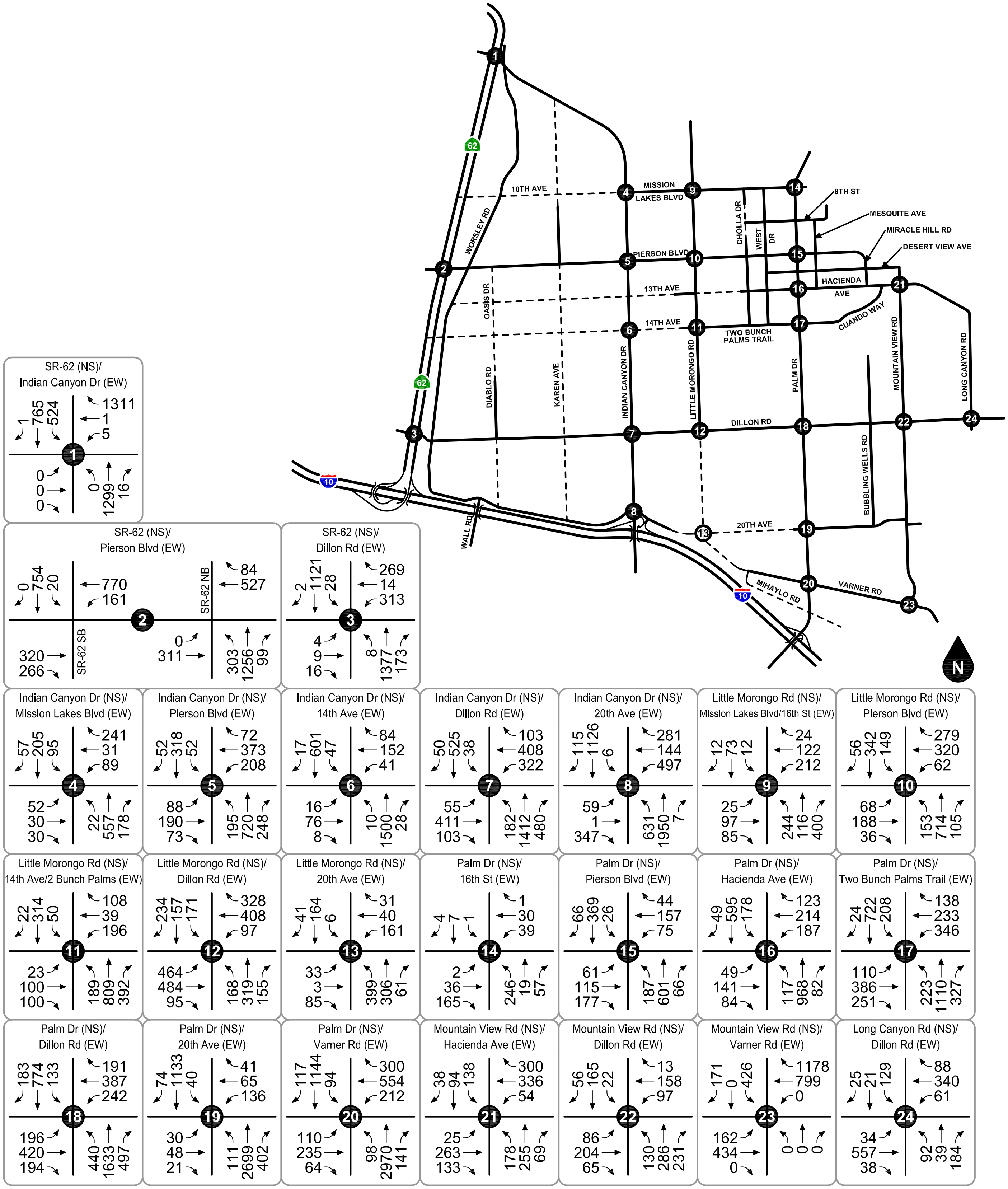
Legend
●## Vehicles Per Day (1,000's)

Figure 18
Proposed General Plan Buildout Average Daily Traffic Volumes



Legend
\# Study Intersection

Figure 19
Proposed General Plan Buildout
AM Peak Hour Intersection Turning Movement Volumes



Legend
Study Intersection

Figure 20
Proposed General Plan Buildout
PM Peak Hour Intersection Turning Movement Volumes

Table 8 (1 of 3)

Proposed General Plan Buildout Roadway Segment Levels of Service

ID	Roadway	Segment	Existing Number of Lanes	Proposed Buildout With Baseline Classifications						Proposed Buildout With Recommended Classifications					
				Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R1.	Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	2	Minor Collector	4U	26,000	700	0.03	A	Collector	2D	18,000	700	0.04	A
R2.	Worsley Rd	Mission Lakes Blvd and Pierson Blvd	2	Minor Collector	4U	26,000	6,700	0.26	A	Collector	2D	18,000	6,700	0.37	A
R3.	Worsley Rd	Pierson Blvd and Hacienda Blvd	2	Minor Collector	4U	26,000	700	0.03	A	Collector	2D	18,000	700	0.04	A
R4.	Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	400	0.02	A	Collector	2D	18,000	400	0.02	A
R5.	Worsley Rd	Two Bunch Palms Trail and Dillon Rd	2	Minor Collector	4U	26,000	500	0.02	A	Collector	2D	18,000	500	0.03	A
R6.	Worsley Rd	Dillon Rd and 20th Ave	2	Minor Collector	4U	26,000	1,000	0.04	A	Collector	2D	18,000	1,000	0.06	A
R7.	Oasis Dr	13th Ave and 14th Ave	n/a	Secondary	4U	26,000	4,600	0.18	A	Collector	2D	18,000	4,600	0.26	A
R8.	Diablo Rd	14th Ave and Dillon Rd	2	Local Collector	2U	13,000	5,000	0.38	A	Collector	2D	18,000	5,000	0.28	A
R9.	Karen Ave	Indian Canyon Dr and 10th Ave	n/a	Secondary	4U	26,000	7,800	0.30	A	Collector	2D	18,000	7,800	0.43	A
R10.	Karen Ave	10th Ave and Pierson Blvd	2	Secondary	4U	26,000	7,700	0.30	A	Collector	2D	18,000	7,700	0.43	A
R11.	Karen Ave	Pierson Blvd and 13th Ave	n/a	Secondary	4U	26,000	9,800	0.38	A	Collector	2D	18,000	9,800	0.54	A
R12.	Karen Ave	13th Ave and 14th Ave	n/a	Secondary	4U	26,000	11,400	0.44	A	Collector	2D	18,000	11,400	0.63	B
R13.	Karen Ave	14th Ave and Dillon Rd	n/a	Secondary	4U	26,000	11,000	0.42	A	Collector	2D	18,000	11,000	0.61	B
R14.	Indian Canyon Dr	SR-62 and Worsley Rd	2	Minor Arterial	4D	36,000	19,100	0.53	A	Secondary II	4U	26,000	19,100	0.73	C
R15.	Indian Canyon Dr	Worsley Rd and Karen Ave	2	Minor Arterial	4D	36,000	17,900	0.50	A	Secondary II	4U	26,000	17,900	0.69	B
R16.	Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	2	Minor Arterial	4D	36,000	11,700	0.33	A	Secondary II	4U	26,000	11,700	0.45	A
R17.	Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	2	Minor Arterial	4D	36,000	13,600	0.38	A	Secondary II	4U	26,000	13,600	0.52	A
R18.	Indian Canyon Dr	Pierson Blvd and 13th Ave	2	Major Arterial	6D	54,000	24,800	0.46	A	Primary II	4D	36,000	24,800	0.69	B
R19.	Indian Canyon Dr	13th Ave to 14th Ave	2	Major Arterial	6D	54,000	26,700	0.49	A	Primary II	4D	36,000	26,700	0.74	C
R20.	Indian Canyon Dr	14th Ave and Dillon Rd	2	Major Arterial	6D	54,000	26,700	0.49	A	Primary II	4D	36,000	26,700	0.74	C
R21.	Indian Canyon Dr	Dillon Rd and 20th Ave	2	Urban Arterial	8D	72,000	39,200	0.54	A	Primary I	6D	54,000	39,200	0.73	C
R22.	Little Morongo Rd	north of Mission Lakes Blvd	2	Minor Collector	4U	26,000	3,100	0.12	A	Local Collector	2U	13,000	3,100	0.24	A
R23.	Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	2	Minor Collector	4U	26,000	17,200	0.66	B	Secondary II	4U	26,000	17,200	0.66	B
R24.	Little Morongo Rd	Pierson Blvd and Hacienda Ave	2	Minor Collector	4U	26,000	14,500	0.56	A	Secondary II	4U	26,000	14,500	0.56	A
R25.	Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	14,300	0.55	A	Secondary II	4U	26,000	14,300	0.55	A
R26.	Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	2	Major Arterial	6D	54,000	19,500	0.36	A	Secondary II	4U	26,000	19,500	0.75	C
R27.	Little Morongo Rd	Dillon Rd and 20th Ave	n/a	Major Arterial	6D	54,000	10,500	0.19	A	Secondary II	4U	26,000	10,500	0.40	A
R28.	West Dr	8th St and Pierson Blvd	2	Minor Collector	4U	26,000	4,200	0.16	A	Local Collector	2U	13,000	4,200	0.32	A
R29.	West Dr	Hacienda Ave and Two Bunch Palms Trail	2	Minor Collector	4U	26,000	5,600	0.22	A	Local Collector	2U	13,000	5,600	0.43	A
R30.	Palm Dr	north of Mission Lakes Blvd	2	Secondary	4U	26,000	400	0.02	A	Local Collector	2U	13,000	400	0.03	A
R31.	Palm Dr	Mission Lakes Blvd and Pierson Blvd	4	Minor Collector	4U	26,000	16,500	0.63	B	Secondary II	4U	26,000	16,500	0.63	B
R32.	Palm Dr	Pierson Blvd and Hacienda Ave	4	Major Collector	4D	36,000	24,000	0.67	B	Secondary I	4D	36,000	24,000	0.67	B
R33.	Palm Dr	Hacienda Ave and Two Bunch Palms Trail	4	Major Collector	4D	36,000	31,600	0.88	D	Secondary I	4D	36,000	31,600	0.88	D
R34.	Palm Dr	Two Bunch Palms Trail and Dillon Rd	4	Major Arterial	6D	54,000	46,400	0.86	D	Primary I	6D	54,000	46,400	0.86	D

Table 8 (2 of 3)

Proposed General Plan Buildout Roadway Segment Levels of Service

				Proposed Buildout With Baseline Classifications						Proposed Buildout With Recommended Classifications					
ID	Roadway	Segment	Existing Number of Lanes	Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R35.	Palm Dr	Dillon Rd and 20th Ave	4	Urban Arterial	8D	72,000	48,500	0.67	B	Urban Arterial	8D	72,000	48,500	0.67	B
R36.	Palm Dr	20th Ave and Varner Rd	4	Urban Arterial	8D	72,000	52,400	0.73	C	Urban Arterial	8D	72,000	52,400	0.73	C
R37.	Palm Dr	Varner Rd and I-10 Freeway	4	Urban Arterial	8D	72,000	49,700	0.69	B	Urban Arterial	8D	72,000	49,700	0.69	B
R38.	Bubbling Wells Rd	north of Dillon Rd	2	Minor Collector	4U	26,000	3,500	0.13	A	Local Collector	2U	13,000	3,500	0.27	A
R39.	Bubbling Wells Rd	Dillon Rd and 20th Ave	2	Minor Collector	4U	26,000	2,200	0.08	A	Local Collector	2U	13,000	2,200	0.17	A
R40.	Mountain View Rd	Hacienda Ave and Dillon Rd	2	Minor Arterial	4D	36,000	12,200	0.34	A	Secondary II	4U	26,000	12,200	0.47	A
R41.	Mountain View Rd	Dillon Rd and 20th Ave	2	Minor Arterial	4D	36,000	15,800	0.44	A	Secondary II	4U	26,000	15,800	0.61	B
R42.	Mountain View Rd	20th Ave and Varner Rd	2	Minor Arterial	4D	36,000	20,600	0.57	A	Secondary II	4U	26,000	20,600	0.79	C
R43.	Long Canyon Rd	north of Dillon Rd	2	Minor Collector	4U	26,000	3,400	0.13	A	Collector	2D	18,000	3,400	0.19	A
R44.	Mission Lakes Blvd	SR-62 and Worsley Rd	n/a	Major Collector	4D	36,000	3,100	0.09	A	Collector	2D	18,000	3,100	0.17	A
R45.	Mission Lakes Blvd	Worsley Rd and Karen Rd	n/a	Minor Collector	4U	26,000	3,800	0.15	A	Collector	2D	18,000	3,800	0.21	A
R46.	Mission Lakes Blvd	Karen Rd and Indian Canyon Dr	n/a	Minor Collector	4U	26,000	6,300	0.24	A	Collector	2D	18,000	6,300	0.35	A
R47.	Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	2	Minor Collector	4U	26,000	5,700	0.22	A	Collector	2D	18,000	5,700	0.32	A
R48.	Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	2	Minor Collector	4U	26,000	10,800	0.42	A	Collector	2D	18,000	10,800	0.60	A
R49.	Mission Lakes Blvd	Cholla Dr and Palm Dr	2	Minor Collector	4U	26,000	4,600	0.18	A	Collector	2D	18,000	4,600	0.26	A
R50.	Pierson Blvd	SR-62 and Worsley Rd	2	Major Arterial	6D	54,000	14,200	0.26	A	Primary II	4D	36,000	14,200	0.39	A
R51.	Pierson Blvd	Worsley Rd and Diablo Rd	2	Major Arterial	6D	54,000	16,200	0.30	A	Primary II	4D	36,000	16,200	0.45	A
R52.	Pierson Blvd	Diablo Rd and Karen Ave	2	Major Arterial	6D	54,000	16,200	0.30	A	Primary II	4D	36,000	16,200	0.45	A
R53.	Pierson Blvd	Karen Ave and Indian Canyon Dr	2	Major Arterial	6D	54,000	14,200	0.26	A	Primary II	4D	36,000	14,200	0.39	A
R54.	Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	13,700	0.38	A	Primary II	4D	36,000	13,700	0.38	A
R55.	Pierson Blvd	Little Morongo Rd and Cholla Dr	4	Minor Arterial	4D	36,000	12,500	0.35	A	Primary II	4D	36,000	12,500	0.35	A
R56.	Pierson Blvd	Cholla Dr and Palm Dr	4	Minor Arterial	4D	36,000	8,300	0.23	A	Primary II	4D	36,000	8,300	0.23	A
R57.	Pierson Blvd	east of Palm Dr	4	Secondary	4U	26,000	6,500	0.25	A	Secondary II	4U	26,000	6,500	0.25	A
R58.	Hacienda Ave	Diablo Rd and Karen Ave	n/a	Secondary	4U	26,000	4,500	0.17	A	Collector	2D	18,000	4,500	0.25	A
R59.	Hacienda Ave	Karen Ave and Indian Canyon Dr	n/a	Secondary	4U	26,000	2,200	0.08	A	Collector	2D	18,000	2,200	0.12	A
R60.	Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	n/a	Minor Collector	4U	26,000	3,800	0.15	A	Collector	2D	18,000	3,800	0.21	A
R61.	Hacienda Ave	Little Morongo Rd and Cholla Dr	n/a	Minor Collector	4U	26,000	3,200	0.12	A	Collector	2D	18,000	3,200	0.18	A
R62.	Hacienda Ave	Cholla Dr and Palm Dr	2	Minor Collector	4U	26,000	6,800	0.26	A	Collector	2D	18,000	6,800	0.38	A
R63.	Hacienda Ave	Palm Dr and Mountain View Rd	2	Minor Collector	4U	26,000	10,300	0.40	A	Collector	2D	18,000	10,300	0.57	A
R64.	Hacienda Ave	east of Mountain View Rd	2	Minor Collector	4U	26,000	10,700	0.41	A	Collector	2D	18,000	10,700	0.59	A
R65.	Two Bunch Palms Trail	SR-62 and Worsley Rd	n/a	Secondary	4U	26,000	500	0.02	A	Secondary II	4U	26,000	500	0.02	A
R66.	Two Bunch Palms Trail	Worsley Rd and Diablo Rd	n/a	Secondary	4U	26,000	500	0.02	A	Secondary II	4U	26,000	500	0.02	A
R67.	Two Bunch Palms Trail	Diablo Rd and Karen Ave	n/a	Secondary	4U	26,000	2,100	0.08	A	Secondary II	4U	26,000	2,100	0.08	A
R68.	Two Bunch Palms Trail	Karen Ave and Indian Canyon Dr	n/a	Secondary	4U	26,000	3,600	0.14	A	Secondary II	4U	26,000	3,600	0.14	A

Table 8 (3 of 3)

Proposed General Plan Buildout Roadway Segment Levels of Service

				Proposed Buildout With Baseline Classifications						Proposed Buildout With Recommended Classifications					
ID	Roadway	Segment	Existing Number of Lanes	Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]	Current Classification	Number of Lanes[1]	LOS E Capacity	ADT[2]	V/C[2]	LOS[2]
R69.	Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	n/a	Secondary	4U	26,000	5,800	0.22	A	Secondary II	4U	26,000	5,800	0.22	A
R70.	Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	2	Secondary	4U	26,000	16,000	0.62	B	Secondary II	4U	26,000	16,000	0.62	B
R71.	Two Bunch Palms Trail	Cholla Dr and Palm Dr	4	Secondary	4U	26,000	16,900	0.65	B	Secondary II	4U	26,000	16,900	0.65	B
R72.	Two Bunch Palms Trail	east of Palm Dr	2	Secondary	4U	26,000	16,800	0.65	B	Secondary II	4U	26,000	16,800	0.65	B
R73.	Dillon Rd	SR-62 and Worsley Rd	2	Major Arterial	6D	54,000	9,200	0.17	A	Secondary I	4D	36,000	9,200	0.26	A
R74.	Dillon Rd	Worsley Rd and Diablo Rd	2	Major Arterial	6D	54,000	9,000	0.17	A	Secondary I	4D	36,000	9,000	0.25	A
R75.	Dillon Rd	Diablo Rd and Karen Ave	2	Major Arterial	6D	54,000	11,900	0.22	A	Secondary I	4D	36,000	11,900	0.33	A
R76.	Dillon Rd	Karen Ave and Indian Canyon Dr	2	Major Arterial	6D	54,000	13,700	0.25	A	Secondary I	4D	36,000	13,700	0.38	A
R77.	Dillon Rd	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	21,800	0.61	B	Secondary I	4D	36,000	21,800	0.61	B
R78.	Dillon Rd	Little Morongo Rd and Palm Dr	2	Minor Arterial	4D	36,000	22,300	0.62	B	Secondary I	4D	36,000	22,300	0.62	B
R79.	Dillon Rd	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	21,000	0.58	A	Secondary I	4D	36,000	21,000	0.58	A
R80.	Dillon Rd	Mountain View Rd and Long Canyon Rd	2	Major Arterial	6D	54,000	13,900	0.26	A	Secondary I	4D	36,000	13,900	0.39	A
R81.	Dillon Rd	east of Long Canyon Rd	2	Major Arterial	6D	54,000	18,200	0.34	A	Secondary I	4D	36,000	18,200	0.51	A
R82.	20th Ave	Worsley Rd and Diablo Rd	2	Minor Collector	4U	26,000	1,600	0.06	A	Collector	2D	18,000	1,600	0.09	A
R83.	20th Ave	Diablo Rd and Karen Ave	2	Minor Collector	4U	26,000	2,100	0.08	A	Collector	2D	18,000	2,100	0.12	A
R84.	20th Ave	Karen Ave and Indian Canyon Dr	2	Minor Collector	4U	26,000	11,400	0.44	A	Collector	2D	18,000	11,400	0.63	B
R85.	20th Ave	Indian Canyon Dr and Little Morongo Rd	2	Minor Arterial	4D	36,000	10,100	0.28	A	Collector	2D	18,000	10,100	0.56	A
R87.	20th Ave	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	7,900	0.22	A	Collector	2D	18,000	7,900	0.44	A
R88.	Varner Rd	Mihaylo Rd and Palm Dr	2	Minor Arterial	4D	36,000	17,300	0.48	A	Secondary II	4U	26,000	17,300	0.67	B
R89.	Varner Rd	Palm Dr and Mountain View Rd	2	Minor Arterial	4D	36,000	13,600	0.38	A	Primary II	4D	36,000	13,600	0.38	A
R90.	Varner Rd	east of Mountain View Rd	2	Minor Arterial	4D	36,000	28,300	0.79	C	Primary II	4D	36,000	28,300	0.79	C

Notes:

(1) ADT = Average Daily Traffic; V/C = Volume/Capacity; LOS = Level of Service

(2) #D = #-Lanes Divided; #U = #-Lanes Undivded

Table 9
Proposed General Plan Buildout Baseline Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	SR-62 (NS) at Indian Canyon Dr (EW)	TS	35.9	D	273.9	F
2A.	SR-62 SB (NS) at Pierson Blvd (EW)	CSS	10,000.0	F	10,000.0	F
2B.	SR-62 NB (NS) at Pierson Blvd (EW)	CSS	10,000.0	F	10,000.0	F
3.	SR-62 (NS) at Dillon Rd (EW)	TS	46.3	D	20.2	C
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	TS	13.7	B	16.6	B
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	AWS	235.0	F	344.1	F
6.	Indian Canyon Dr (NS) at 14th Ave (EW)	CSS	451.7	F	1,372.4	F
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	AWS	635.3	F	736.5	F
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	TS	85.3	F	83.6	F
9.	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	AWS	18.0	C	22.6	C
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	AWS	233.3	F	305.8	F
11.	Little Morongo Rd (NS) at 14th Ave/Two Bunch Palms Trail (EW)	AWS	209.2	F	489.4	F
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	AWS	350.6	F	304.0	F
13.	Little Morongo Rd (NS) at 20th Ave (EW)	n/a	16.0	C	76.5	F
14.	Palm Dr (NS) at 16th St (EW)	AWS	11.4	B	10.4	B
15.	Palm Dr (NS) at Pierson Blvd (EW)	TS	23.5	C	20.5	C
16.	Palm Dr (NS) at Hacienda Ave (EW)	TS	19.4	B	24.2	C
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	TS	51.1	D	48.6	D
18.	Palm Dr (NS) at Dillon Rd (EW)	TS	111.5	F	64.3	E
19.	Palm Dr (NS) at 20th Ave (EW)	CSS	10,000.0	F	10,000.0	F
20.	Palm Dr (NS) at Varner Rd (EW)	TS	162.8	F	293.2	F
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	TS	26.6	C	34.6	C
22.	Mountain View Rd (NS) at Dillon Rd (EW)	TS	61.9	E	24.4	C
23.	Mountain View Rd (NS) at Varner Rd (EW)	AWS	403.6	F	350.6	F
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	AWS	25.9	D	79.7	F

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

Table 10
Proposed General Plan Buildout With Improvements Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	SR-62 (NS) at Indian Canyon Dr (EW)	TS	16.9	B	54.2	D
2.	SR-62 (NS) at Pierson Blvd (EW)	TS	22.9	C	35.8	D
3.	SR-62 (NS) at Dillon Rd (EW)	TS	46.3	D	20.2	C
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	TS	13.7	B	16.6	B
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	TS	23.1	C	20.8	C
6.	Indian Canyon Dr (NS) at 14th Ave (EW)	TS	13.7	B	50.1	D
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	TS	31.5	C	33.4	C
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	TS	44.0	D	39.0	D
9.	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	AWS	18.0	C	22.6	C
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	TS	16.2	B	19.3	B
11.	Little Morongo Rd (NS) at 14th Ave/Two Bunch Palms Trail (EW)	TS	18.7	B	12.9	B
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	TS	33.7	C	35.8	D
13.	Little Morongo Rd (NS) at 20th Ave (EW)	AWS	15.9	C	17.7	C
14.	Palm Dr (NS) at 16th St (EW)	AWS	11.4	B	10.4	B
15.	Palm Dr (NS) at Pierson Blvd (EW)	TS	23.5	C	20.5	C
16.	Palm Dr (NS) at Hacienda Ave (EW)	TS	19.4	B	24.2	C
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	TS	51.1	D	48.6	D
18.	Palm Dr (NS) at Dillon Rd (EW)	TS	42.5	D	48.3	D
19.	Palm Dr (NS) at 20th Ave (EW)	TS	14.7	B	16.7	B
20.	Palm Dr (NS) at Varner Rd (EW)	TS	54.8	D	43.3	D
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	TS	26.6	C	34.6	C
22.	Mountain View Rd (NS) at Dillon Rd (EW)	TS	46.5	D	24.1	C
23.	Mountain View Rd (NS) at Varner Rd (EW)	TS	46.2	D	46.6	D
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	AWS	17.0	C	20.0	C

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

7. RECOMMENDATIONS

RECOMMENDED GENERAL PLAN ROADWAY CLASSIFICATIONS

As previously noted, the baseline roadway classifications are forecast to result in more than sufficient roadway capacity at several roadway segments. Additionally, the nomenclature used for the baseline roadway classifications (as currently identified in the current General Plan) is unusual since collector roadways are typically lower in the hierarchy than secondary roadways. Therefore, it is recommended that the roadway classifications be modified as shown in Table 11 below. Table 11 shows the recommended changes from current to proposed General Plan roadway classifications and capacities.

Table 11. Recommended General Plan Roadway Classifications & Daily Capacity Estimates

Current				Proposed				
					ROW			
Classification	ROW	Number of Lanes	LOS E Capacity	Classification	Without Bike Lane	With Bike Lane	Number of Lanes	LOS E Capacity
Urban Arterial	134'	8D	72,000	Urban Arterial	n/a	142'	8D	72,000
Major Arterial	110'	6D	54,000	Primary I	110'	118'	6D	54,000
Minor Arterial	110'	4D	36,000	Primary II	n/a	110'	4D	36,000
Major Collector	100'	4D	36,000	Secondary I	n/a	100'	4D	36,000
Minor Collector	88'	4U	26,000	Secondary II	80-88'	90'	4U	26,000
Secondary	80'	4U	26,000	Collector	72'	82'	2D	18,000
Local Collector	60'	2U	13,000	Local Collector	60'	70'	2U	13,000

Notes:
ROW = Right-of-Way (in feet)
LOS = Level of Service

The recommended roadway classification map for the proposed General Plan buildout is illustrated on Figure 21. The proposed General Plan buildout roadway cross-sections are shown on Figure 22.

SUMMARY OF ULTIMATE INTERSECTION LANE CONFIGURATION

A summary of the recommended ultimate intersection lane configurations for the Proposed General Plan Buildout is illustrated on Figure 23.

N

Source: City of Desert Hot Springs

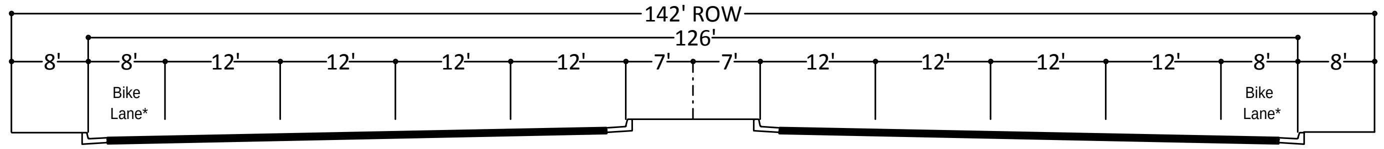
Legend

- City Boundary
- City Sphere of Influence
- Urban Arterial
- Primary I
- Primary II
- Secondary I
- Secondary II
- Collector
- Local Collector

Figure 21
Recommended General Plan Roadway Classification Map

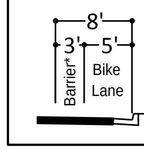
URBAN ARTERIAL

8-Lanes Divided
No Parking
With Protected Bike Lane



*See Enhanced Bike Lane Detail.

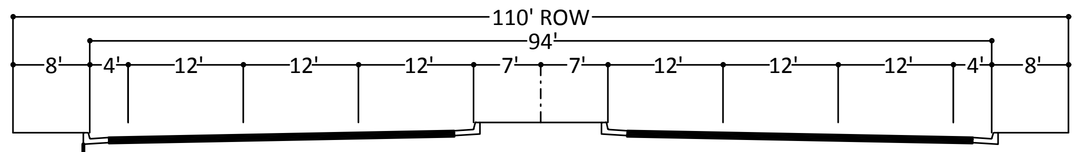
ENHANCED BIKE LANE DETAIL:



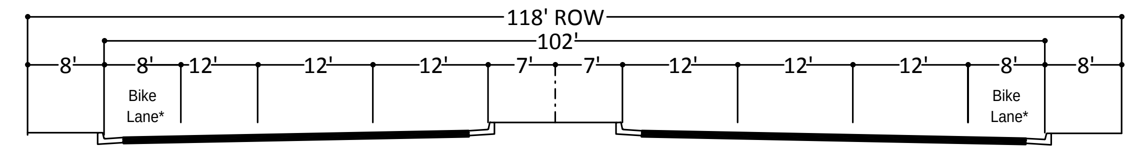
* Buffered bike lanes include painted buffer;
Protected bike lanes may include safety bollards or a landscaped median.

PRIMARY I

6-Lanes Divided
No Parking
Without and With Protected Bike Lane



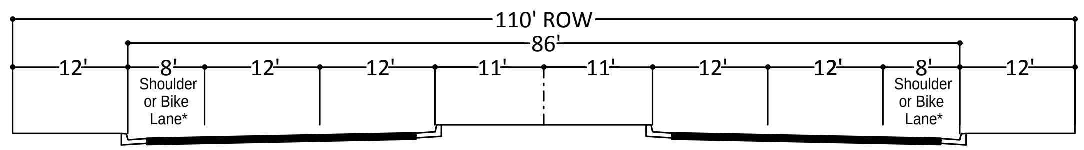
Note: Without Protected Bike Lane (Indian Canyon Drive between I-10 and Dillon Road)



Note: With Protected Bike Lane (Palm Drive between Dillon Road and Two Bunch Palms Trail)
*See Enhanced Bike Lane Detail.

PRIMARY II

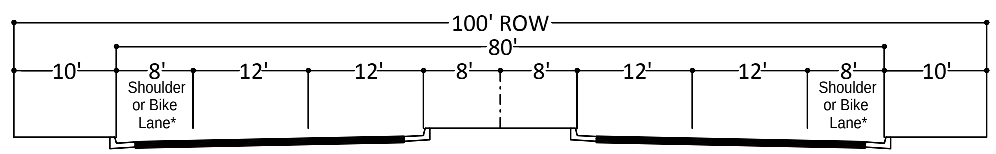
4-Lanes Divided
No Parking
With or Without Protected Bike Lane



*See Enhanced Bike Lane Detail.

SECONDARY I

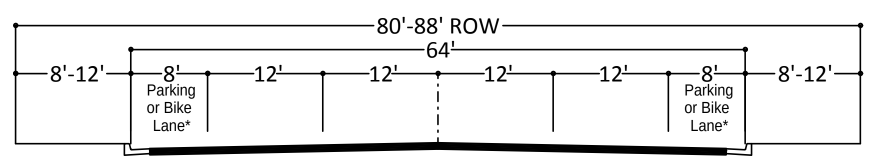
4-Lanes Divided
No Parking
With Protected Bike Lane



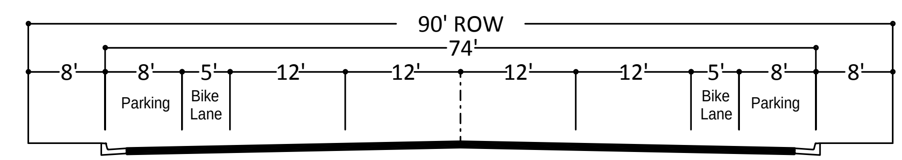
*See Enhanced Bike Lane Detail.

SECONDARY II

4-Lanes Undivided
On-Street Parking
With or Without Bike Lane



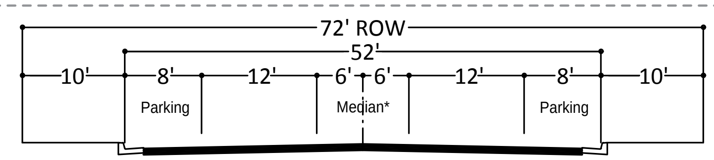
Note: With Parking or Bike Lane
*See Enhanced Bike Lane Detail.



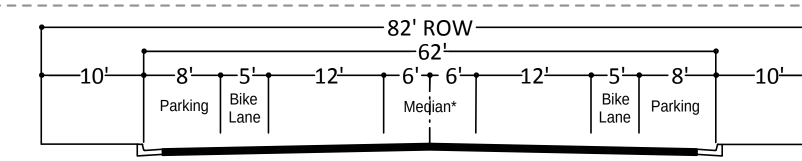
Note: With Parking and Bike Lane

COLLECTOR

2-Lanes Divided
On-Street Parking
With or Without Dedicated Bike Lane



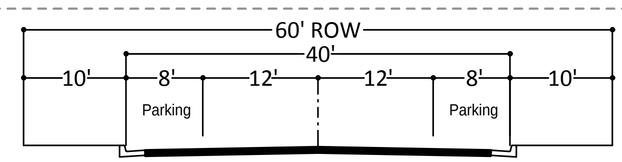
Note:
*Painted or raised median.



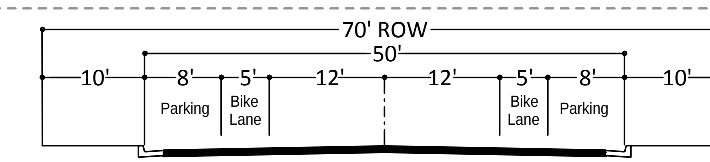
Note: With Parking and Bike Lane
*Painted or raised median.

LOCAL COLLECTOR

2-Lanes Undivided
On-Street Parking
With or Without Dedicated Bike Lane

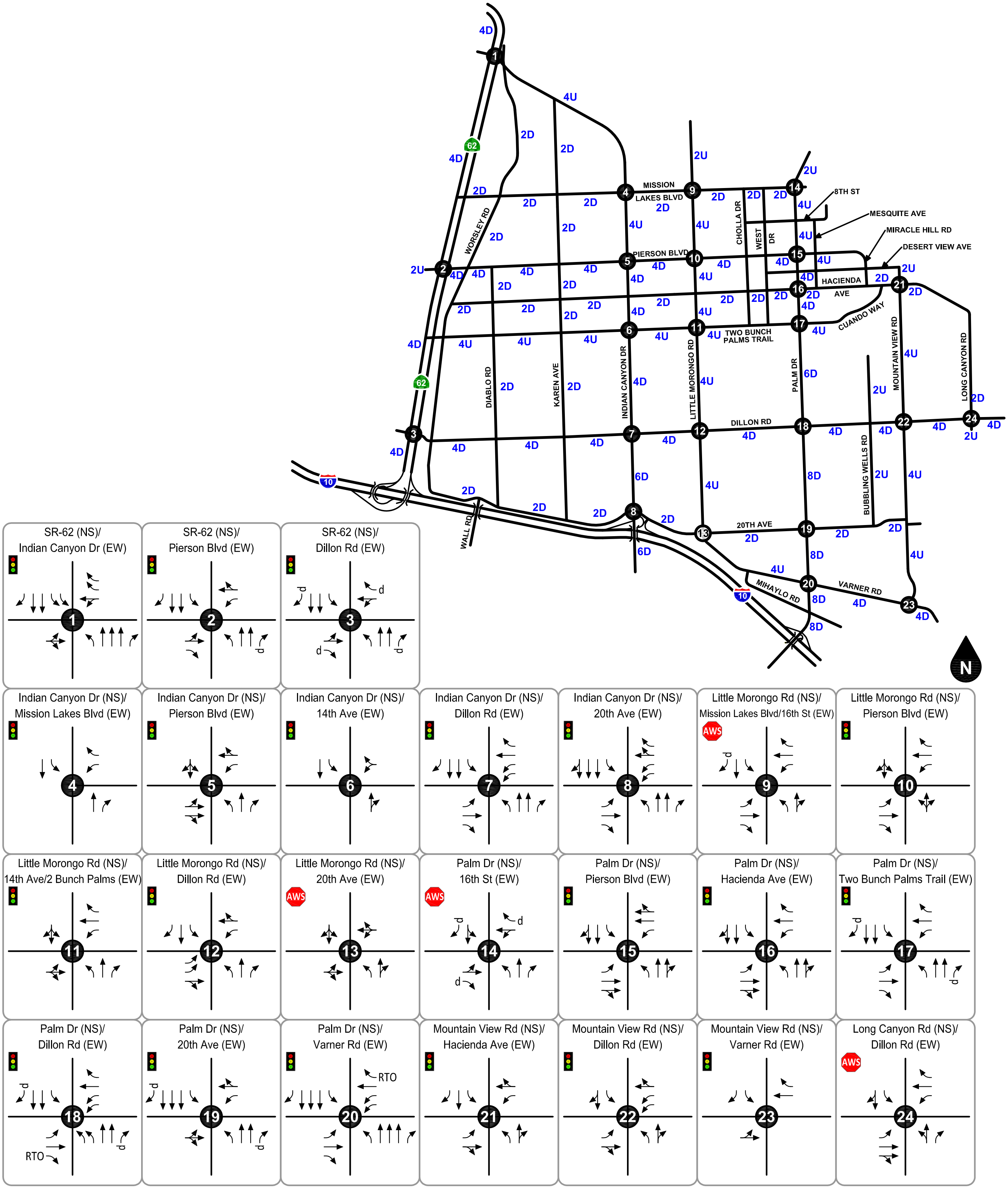


Note: With Parking Only (No Bike Lane)



Note: With Parking and Bike Lane

Figure 22
Recommended General Plan Roadway Cross-Sections



Legend

Traffic Signal
AWS All Way Stop
#D #-Lane Divided Roadway
#U #-Lane Undivided Roadway
Lane
RTO Right Turn Overlap
d De Facto Right Turn Lane

Figure 23
Proposed General Plan Buildout
Intersection Traffic Controls and Lane Geometry

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APPENDICES

Appendix A Glossary

Appendix B Volume Count Worksheets

Appendix C Level of Service Worksheets

Appendix D Socio-Economic Data & Roadway Attribute Model Inputs

Appendix E Travel Demand Model Plots

Appendix F Post-Processing Worksheets

APPENDIX A

GLOSSARY

GLOSSARY OF TERMS

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
LOS	Level of Service
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CONTROL DELAY: The component of delay, typically expressed in seconds per vehicle, resulting from the type of traffic control at an intersection. Control delay is measured by comparison with the uncontrolled condition; it includes delay incurred by slowing down, stopping/waiting, and speeding up.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.

CYCLE LENGTH: The time period in seconds required for a traffic signal to complete one full cycle of indications.

CUL-DE-SAC: A local street open at one end only and with special provisions for turning around.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENT (PCE): A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SHARED/RECIPROCAL PARKING AGREEMENT: A written binding document executed between property owners to provide a designated number of off-street parking stalls within a designated area to be available for specified businesses or land uses.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queueing to occur.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

VOLUME COUNT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	SR-62	LOCATION #:	1
	EAST & WEST:	Indian Canyon	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER

N ▲ ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND SR-62			SOUTHBOUND SR-62			EASTBOUND Indian Canyon			WESTBOUND Indian Canyon			TOTAL	U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	0	1	0	0.5	0.5	1		0	0	0	0	
AM 7:00 AM	0	105	1	38	217	0	0	0	0	0	0	18	379	0	0	0	0	0
7:15 AM	0	84	0	65	260	0	0	0	0	0	0	29	438	0	0	0	0	0
7:30 AM	0	104	4	39	206	0	0	1	0	0	0	44	398	0	0	0	0	0
7:45 AM	0	101	0	41	203	0	0	0	0	0	0	34	379	0	0	0	0	0
8:00 AM	0	90	0	46	181	0	0	0	0	0	0	24	341	0	0	0	0	0
8:15 AM	0	97	1	35	185	0	0	0	0	1	0	34	353	0	0	0	0	0
8:30 AM	0	96	0	40	176	1	0	0	0	0	0	38	351	0	0	0	0	0
8:45 AM	1	100	1	48	170	0	0	0	1	1	0	34	356	0	0	0	0	0
VOLUMES	1	777	7	352	1,598	1	0	1	1	2	0	255	2,995	0	0	0	0	0
APPROACH %	0%	99%	1%	18%	82%	0%	0%	50%	50%	1%	0%	99%						
APP/DEPART	785	/	1,032	1,951	/	1,601	2	/	360	257	/	2	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	0	394	5	183	886	0	0	1	0	0	0	125	1,594					
APPROACH %	0%	99%	1%	17%	83%	0%	0%	100%	0%	0%	0%	100%						
PEAK HR FACTOR		0.924			0.822			0.250			0.710		0.910					
APP/DEPART	399	/	519	1,069	/	886	1	/	189	125	/	0	0					
PM 4:00 PM	1	175	3	31	132	0	0	0	0	1	0	90	433	0	1	0	0	1
4:15 PM	0	216	0	33	163	0	0	0	0	0	0	90	502	0	0	0	0	0
4:30 PM	0	199	0	43	140	0	0	0	0	0	0	94	476	0	0	0	0	0
4:45 PM	0	170	1	45	149	0	0	0	0	0	0	89	454	0	0	0	0	0
5:00 PM	0	165	3	37	162	1	0	0	0	0	1	84	453	0	0	0	0	0
5:15 PM	0	225	2	46	164	0	0	0	0	2	0	79	518	0	0	0	0	0
5:30 PM	0	207	5	37	142	1	0	0	1	0	0	80	473	0	0	0	0	0
5:45 PM	1	179	1	36	145	0	1	0	1	0	0	86	450	0	0	0	0	0
VOLUMES	2	1,536	15	308	1,197	2	1	0	2	3	1	692	3,759	0	1	0	0	1
APPROACH %	0%	99%	1%	20%	79%	0%	33%	0%	67%	0%	0%	99%						
APP/DEPART	1,553	/	2,230	1,507	/	1,202	3	/	322	696	/	5	0					
BEGIN PEAK HR		4:30 PM																
VOLUMES	0	759	6	171	615	1	0	0	0	2	1	346	1,901					
APPROACH %	0%	99%	1%	22%	78%	0%	0%	0%	0%	1%	0%	99%						
PEAK HR FACTOR		0.843			0.937			0.000			0.928		0.917					
APP/DEPART	765	/	1,105	787	/	617	0	/	177	349	/	2	0					

SR-62

NORTH SIDE

Indian Canyon WEST SIDE EAST SIDE **Indian Canyon**

SOUTH SIDE

SR-62

	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	SR-62	LOCATION #:	2
	EAST & WEST:	Pierson	CONTROL:	STOP E/W

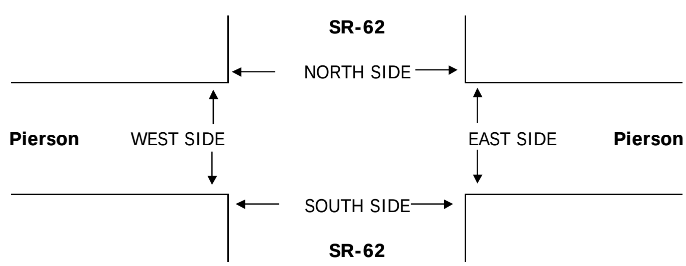
NOTES:

AM PM MD OTHER OTHER

N W E S

☑ Add U-Turns to Left Turns

	NORTHBOUND SR-62			SOUTHBOUND SR-62			EASTBOUND Pierson			WESTBOUND Pierson				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	0.3	0.3	0.3	0.3	0.3	0.3		0	0	0	0	
AM 7:00 AM	0	101	17	1	195	1	0	2	4	27	0	1	349	0	0	0	0	0
7:15 AM	1	84	16	3	258	0	0	1	5	13	1	3	385	0	0	0	0	0
7:30 AM	1	107	19	3	221	0	0	1	1	16	0	1	370	0	0	0	0	0
7:45 AM	0	94	12	3	202	1	0	1	4	21	1	0	339	0	0	0	0	0
8:00 AM	0	89	18	1	184	0	0	3	1	11	0	1	308	0	0	0	0	0
8:15 AM	0	98	8	5	161	1	0	0	1	11	1	2	288	0	0	0	0	0
8:30 AM	0	96	12	4	183	1	0	0	2	15	0	2	315	0	1	0	0	1
8:45 AM	0	94	17	4	162	0	0	1	0	12	0	2	292	0	0	0	0	0
VOLUMES	2	763	119	24	1,566	4	0	9	18	126	3	12	2,646	0	1	0	0	1
APPROACH %	0%	86%	13%	2%	98%	0%	0%	33%	67%	89%	2%	9%						
APP/DEPART	884	/	776	1,594	/	1,710	27	/	151	141	/	9	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	2	386	64	10	876	2	0	5	14	77	2	5	1,443					
APPROACH %	0%	85%	14%	1%	99%	0%	0%	26%	74%	92%	2%	6%						
PEAK HR FACTOR		0.890			0.851			0.792			0.750		0.937					
APP/DEPART	452	/	391	888	/	967	19	/	79	84	/	6	0					
PM 4:00 PM	2	172	15	1	122	0	0	3	2	13	0	8	338	1	0	0	0	1
4:15 PM	2	209	21	3	162	1	1	0	0	19	5	4	427	0	0	0	0	0
4:30 PM	0	189	20	3	145	0	1	0	0	20	0	1	379	0	0	0	0	0
4:45 PM	1	181	27	1	144	0	0	1	2	7	1	0	365	0	0	0	0	0
5:00 PM	2	171	15	3	164	0	0	2	2	17	2	5	383	1	0	0	0	1
5:15 PM	3	219	21	2	155	0	0	0	0	18	0	4	422	0	0	0	0	0
5:30 PM	2	209	27	4	146	0	0	0	0	18	1	6	413	0	0	0	0	0
5:45 PM	1	164	20	2	139	0	0	0	0	10	2	2	340	0	0	0	0	0
VOLUMES	13	1,514	166	19	1,177	1	2	6	6	122	11	30	3,067	2	0	0	0	2
APPROACH %	1%	89%	10%	2%	98%	0%	14%	43%	43%	75%	7%	18%						
APP/DEPART	1,693	/	1,546	1,197	/	1,307	14	/	191	163	/	23	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	8	780	90	10	609	0	0	3	4	60	4	15	1,583					
APPROACH %	1%	89%	10%	2%	98%	0%	0%	43%	57%	76%	5%	19%						
PEAK HR FACTOR		0.903			0.927			0.438			0.790		0.938					
APP/DEPART	878	/	795	619	/	674	7	/	103	79	/	11	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	SR-62	LOCATION #:	3
	EAST & WEST:	Dillon	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

	NORTHBOUND SR-62			SOUTHBOUND SR-62			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	0.3	0.3	0.3	0.3	0.3	0.3		0	0	0	0	
AM 7:00 AM	3	108	7	3	215	1	1	0	2	11	1	0	352	0	0	0	0	0
7:15 AM	4	102	9	4	266	1	0	0	1	20	2	4	413	0	0	0	0	0
7:30 AM	1	120	11	5	257	1	0	3	4	23	1	1	427	1	0	0	0	1
7:45 AM	1	118	18	5	214	0	0	3	4	19	2	1	385	0	0	0	0	0
8:00 AM	1	95	14	3	200	1	0	1	2	15	1	1	334	1	0	0	0	1
8:15 AM	3	104	10	2	167	0	0	1	2	17	1	2	309	0	0	0	0	0
8:30 AM	2	103	14	4	187	0	0	0	2	18	2	1	333	1	0	0	0	1
8:45 AM	2	109	16	2	173	0	0	1	1	21	2	1	328	0	0	0	0	0
VOLUMES	17	859	99	28	1,679	4	1	9	18	144	12	11	2,881	3	0	0	0	3
APPROACH %	2%	88%	10%	2%	98%	0%	4%	32%	64%	86%	7%	7%						
APP/DEPART	975	/	871	1,711	/	1,844	28	/	136	167	/	30	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	9	448	45	17	952	3	1	6	11	73	6	6	1,577					
APPROACH %	2%	89%	9%	2%	98%	0%	6%	33%	61%	86%	7%	7%						
PEAK HR FACTOR		0.916			0.897			0.643			0.817		0.923					
APP/DEPART	502	/	455	972	/	1,037	18	/	68	85	/	17	0					
PM 4:00 PM	0	191	18	4	139	1	1	0	4	23	1	7	389	0	0	0	0	0
4:15 PM	1	233	21	7	173	0	0	0	0	17	0	3	455	1	0	0	0	1
4:30 PM	3	181	23	5	168	1	2	4	6	25	0	6	424	1	0	0	0	1
4:45 PM	0	214	29	2	143	0	1	1	4	15	0	6	415	0	0	0	0	0
5:00 PM	2	181	20	1	165	0	0	0	5	18	3	12	407	0	0	0	0	0
5:15 PM	3	237	19	2	163	2	0	3	1	7	0	5	442	1	0	0	0	1
5:30 PM	2	226	32	3	184	0	1	0	4	22	1	5	480	0	0	0	0	0
5:45 PM	2	178	21	2	138	1	0	0	4	18	0	2	366	0	0	0	0	0
VOLUMES	13	1,641	183	26	1,273	5	5	8	28	145	5	46	3,378	3	0	0	0	3
APPROACH %	1%	89%	10%	2%	98%	0%	12%	20%	68%	74%	3%	23%						
APP/DEPART	1,837	/	1,692	1,304	/	1,449	41	/	217	196	/	20	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	7	858	100	8	655	2	2	4	14	62	4	28	1,744					
APPROACH %	1%	89%	10%	1%	98%	0%	10%	20%	70%	66%	4%	30%						
PEAK HR FACTOR		0.928			0.889			0.833			0.712		0.908					
APP/DEPART	965	/	888	665	/	732	20	/	112	94	/	12	0					

SR-62

NORTH SIDE

Dillon WEST SIDE

EAST SIDE Dillon

SOUTH SIDE

SR-62

	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Indian Canyon	LOCATION #:	4
	EAST & WEST:	Mission Lakes	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
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S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Mission Lakes			WESTBOUND Mission Lakes			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	1	1	0	X	X	X	1	X	1	
AM 7:00 AM	0	15	15	6	33	0	0	0	0	52	0	12	133
7:15 AM	0	13	12	18	42	0	0	0	0	54	0	18	157
7:30 AM	0	31	21	12	28	0	0	0	0	49	0	11	152
7:45 AM	0	15	15	12	36	0	0	0	0	31	0	12	121
8:00 AM	0	20	25	8	33	0	0	0	0	39	0	6	131
8:15 AM	0	34	17	4	29	0	0	0	0	40	0	7	131
8:30 AM	0	20	13	8	25	0	0	0	0	38	0	12	116
8:45 AM	0	27	10	12	34	0	0	0	0	31	0	7	121
VOLUMES	0	175	128	80	260	0	0	0	0	334	0	85	1,062
APPROACH %	0%	58%	42%	24%	76%	0%	0%	0%	0%	80%	0%	20%	
APP/DEPART	303	/	260	340	/	594	0	/	208	419	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	74	63	48	139	0	0	0	0	186	0	53	563
APPROACH %	0%	54%	46%	26%	74%	0%	0%	0%	0%	78%	0%	22%	
PEAK HR FACTOR		0.659			0.779			0.000			0.830		0.896
APP/DEPART	137	/	127	187	/	325	0	/	111	239	/	0	0
PM 4:00 PM	0	65	21	12	19	0	0	0	0	21	0	18	156
4:15 PM	0	61	35	11	19	0	0	0	0	17	0	27	170
4:30 PM	0	76	37	16	31	0	0	0	0	14	0	17	191
4:45 PM	0	58	40	15	30	0	0	0	0	24	0	23	190
5:00 PM	0	60	44	13	25	0	0	0	0	20	0	19	181
5:15 PM	0	53	41	12	36	0	0	0	0	23	0	15	180
5:30 PM	0	70	40	8	27	0	0	0	0	14	0	20	179
5:45 PM	0	61	30	12	26	0	0	0	0	14	0	17	160
VOLUMES	0	504	288	99	213	0	0	0	0	147	0	156	1,407
APPROACH %	0%	64%	36%	32%	68%	0%	0%	0%	0%	49%	0%	51%	
APP/DEPART	792	/	660	312	/	360	0	/	387	303	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	247	162	56	122	0	0	0	0	81	0	74	742
APPROACH %	0%	60%	40%	31%	69%	0%	0%	0%	0%	52%	0%	48%	
PEAK HR FACTOR		0.905			0.927			0.000			0.824		0.971
APP/DEPART	409	/	321	178	/	203	0	/	218	155	/	0	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0

Indian Canyon

NORTH SIDE

Mission Lakes WEST SIDE EAST SIDE **Mission Lakes**

SOUTH SIDE

Indian Canyon

	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Tue, Apr 17, 18	LOCATION: Desert Hot Springs		PROJECT #:	SC1686
	NORTH & SOUTH:	Indian Canyon	LOCATION #:	5
	EAST & WEST:	Pierson	CONTROL:	STOP ALL

NOTES:

AM
PM
MD
OTHER
OTHER

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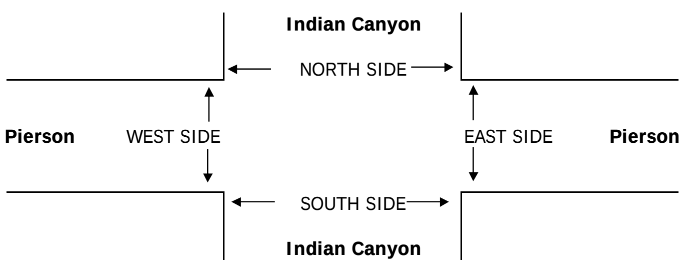
S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Pierson			WESTBOUND Pierson			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
AM 7:00 AM	0	20	9	4	60	9	7	18	9	37	11	4	188
7:15 AM	1	23	25	19	74	7	3	26	13	38	8	3	240
7:30 AM	3	41	19	9	69	7	4	26	11	48	9	3	249
7:45 AM	4	22	25	16	48	3	2	21	6	41	14	5	207
8:00 AM	1	30	17	10	56	4	9	15	6	29	10	4	191
8:15 AM	4	44	26	7	53	6	4	11	1	27	14	4	201
8:30 AM	2	27	16	5	50	7	2	17	2	19	9	4	160
8:45 AM	1	25	22	10	55	12	6	17	5	28	10	7	198
VOLUMES	16	232	159	80	465	55	37	151	53	267	85	34	1,634
APPROACH %	4%	57%	39%	13%	78%	9%	15%	63%	22%	69%	22%	9%	
APP/DEPART	407	/	302	600	/	785	241	/	390	386	/	157	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	9	116	86	54	247	21	18	88	36	156	41	15	887
APPROACH %	4%	55%	41%	17%	77%	7%	13%	62%	25%	74%	19%	7%	
PEAK HR FACTOR		0.837			0.805			0.845			0.883		0.891
APP/DEPART	211	/	149	322	/	439	142	/	228	212	/	71	0
PM 4:00 PM	5	73	31	2	32	2	3	22	6	29	27	11	243
4:15 PM	6	72	25	7	24	3	6	15	5	18	13	11	205
4:30 PM	5	91	28	7	36	3	8	18	6	28	17	14	261
4:45 PM	6	75	31	11	35	2	14	17	3	20	11	8	233
5:00 PM	9	85	26	4	42	3	9	18	4	21	24	9	254
5:15 PM	11	84	33	14	42	4	2	20	7	21	24	12	274
5:30 PM	7	90	30	6	35	4	7	16	3	22	24	8	252
5:45 PM	8	80	41	10	28	1	9	21	2	16	14	10	240
VOLUMES	57	650	245	61	274	22	58	147	36	175	154	83	1,962
APPROACH %	6%	68%	26%	17%	77%	6%	24%	61%	15%	42%	37%	20%	
APP/DEPART	952	/	791	357	/	485	241	/	453	412	/	233	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	31	335	118	36	155	12	33	73	20	90	76	43	1,022
APPROACH %	6%	69%	24%	18%	76%	6%	26%	58%	16%	43%	36%	21%	
PEAK HR FACTOR		0.945			0.846			0.926			0.886		0.932
APP/DEPART	484	/	411	203	/	265	126	/	227	209	/	119	0

U-TURNS					
	NB	SB	EB	WB	TTL
LANES	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
VOLUMES	0	0	1	0	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Indian Canyon	LOCATION #:	6
	EAST & WEST:	14th	CONTROL:	STOP E/W

NOTES:

AM PM MD OTHER OTHER

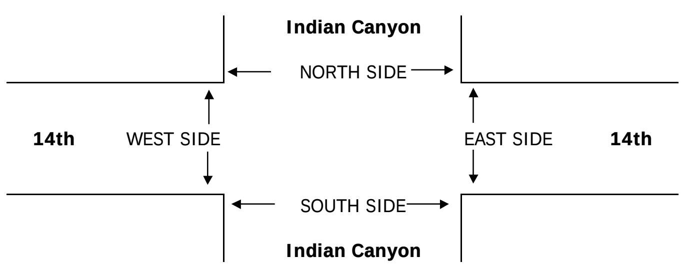
N ◄ W E ► S

☑ Add U-Turns to Left Turns

	NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 14th			WESTBOUND 14th			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	0	0	0	
AM 7:00 AM	0	27	0	0	107	0	0	0	0	0	0	0	134
7:15 AM	0	49	0	0	130	0	0	0	0	0	0	0	179
7:30 AM	0	49	0	0	133	0	0	0	0	0	0	0	182
7:45 AM	0	41	0	0	94	0	0	0	0	0	0	0	135
8:00 AM	0	58	0	0	100	0	0	0	1	0	0	0	159
8:15 AM	0	61	0	0	87	0	0	0	0	0	0	0	148
8:30 AM	0	42	0	0	75	0	0	0	0	0	0	0	117
8:45 AM	0	44	0	0	87	0	0	0	0	0	0	0	131
VOLUMES	0	371	0	0	813	0	0	0	1	0	0	0	1,185
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	371	/	371	813	/	814	1	/	0	0	/	0	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	197	0	0	457	0	0	0	1	0	0	0	655
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR		0.849			0.859			0.250			0.000		0.900
APP/DEPART	197	/	197	457	/	458	1	/	0	0	/	0	0
PM 4:00 PM	0	118	0	0	62	0	0	0	0	0	0	0	180
4:15 PM	0	120	0	0	48	0	0	0	0	0	2	0	170
4:30 PM	0	123	0	0	73	0	0	0	0	0	0	0	196
4:45 PM	0	126	0	0	53	0	0	0	0	0	0	0	179
5:00 PM	0	129	0	0	67	0	0	0	0	0	0	0	196
5:15 PM	0	138	0	0	70	0	0	0	0	0	0	0	208
5:30 PM	0	132	0	0	65	0	0	0	0	0	0	0	197
5:45 PM	0	115	0	0	33	0	0	0	0	0	0	0	148
VOLUMES	0	1,001	0	0	471	0	0	0	0	0	2	0	1,474
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	
APP/DEPART	1,001	/	1,001	471	/	471	0	/	0	2	/	2	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	525	0	0	255	0	0	0	0	0	0	0	780
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.951			0.911			0.000			0.000		0.938
APP/DEPART	525	/	525	255	/	255	0	/	0	0	/	0	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0



PEDESTRIAN + BIKE CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM		
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM		

PEDESTRIAN CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	0	0	0	0	0

BICYCLE CROSSINGS

	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Indian Canyon	LOCATION #:	7
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

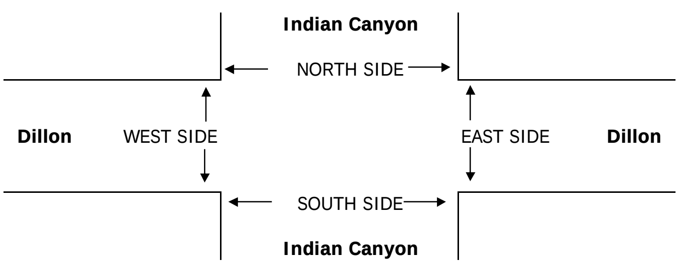
NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0		0	0	0	0	
AM 7:00 AM	2	25	23	6	86	0	0	6	7	56	8	2	221	0	0	0	0	0
7:15 AM	3	48	34	8	109	5	0	11	19	93	13	5	348	0	0	0	0	0
7:30 AM	4	47	28	6	115	1	0	15	4	94	25	2	341	0	0	0	0	0
7:45 AM	4	35	33	5	105	1	0	22	11	94	19	5	334	0	0	0	0	0
8:00 AM	1	50	33	6	95	0	1	16	4	78	15	6	305	0	0	0	0	0
8:15 AM	3	55	41	5	83	0	1	12	4	83	20	5	312	0	0	0	0	0
8:30 AM	6	30	36	6	84	0	2	9	4	76	19	9	281	0	0	0	0	0
8:45 AM	4	43	34	5	79	1	0	18	4	59	16	3	266	1	1	0	0	2
VOLUMES	27	333	262	47	756	8	4	109	57	633	135	37	2,408	1	1	0	0	2
APPROACH %	4%	54%	42%	6%	93%	1%	2%	64%	34%	79%	17%	5%						
APP/DEPART	622	/	375	811	/	1,447	170	/	417	805	/	169	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	12	180	128	25	424	7	1	64	38	359	72	18	1,328					
APPROACH %	4%	56%	40%	5%	93%	2%	1%	62%	37%	80%	16%	4%						
PEAK HR FACTOR		0.941			0.934			0.780			0.928		0.954					
APP/DEPART	320	/	199	456	/	821	103	/	217	449	/	91	0					
PM 4:00 PM	2	105	68	6	59	1	2	20	2	43	17	9	334	0	0	0	0	0
4:15 PM	4	94	55	4	41	0	0	17	4	39	19	8	285	0	0	0	0	0
4:30 PM	1	129	78	10	63	0	1	30	9	45	20	13	399	0	0	0	0	0
4:45 PM	0	107	73	8	48	1	4	24	1	53	23	14	356	0	0	0	0	0
5:00 PM	11	113	73	2	57	2	1	21	1	44	14	13	352	0	0	0	0	0
5:15 PM	10	127	70	7	64	4	1	20	4	34	13	9	363	0	0	0	0	0
5:30 PM	5	116	63	7	54	1	2	29	1	42	22	7	349	0	0	0	0	0
5:45 PM	4	117	45	5	37	0	2	21	2	38	9	13	293	0	0	0	0	0
VOLUMES	37	908	525	49	423	9	13	182	24	338	137	86	2,731	0	0	0	0	0
APPROACH %	3%	62%	36%	10%	88%	2%	6%	83%	11%	60%	24%	15%						
APP/DEPART	1,470	/	1,007	481	/	785	219	/	756	561	/	183	0					
BEGIN PEAK HR		4:30 PM																
VOLUMES	22	476	294	27	232	7	7	95	15	176	70	49	1,470					
APPROACH %	3%	60%	37%	10%	87%	3%	6%	81%	13%	60%	24%	17%						
PEAK HR FACTOR		0.952			0.887			0.731			0.819		0.921					
APP/DEPART	792	/	532	266	/	423	117	/	416	295	/	99	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Indian Canyon	LOCATION #:	8
	EAST & WEST:	20th	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER

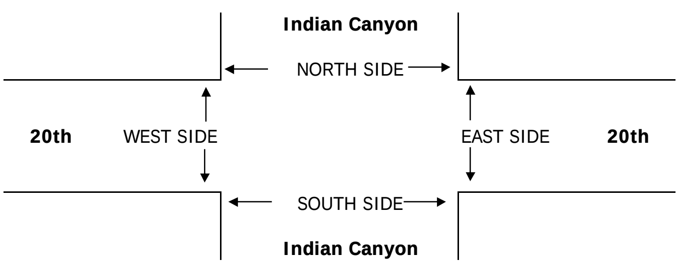
▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 20th			WESTBOUND 20th			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	1	1	2	0.5	1.5	
AM 7:00 AM	9	48	0	0	147	1	7	0	21	46	11	19	309
7:15 AM	3	56	0	1	223	2	1	0	13	59	9	36	403
7:30 AM	10	64	1	1	209	7	8	0	19	69	10	19	417
7:45 AM	6	45	2	0	206	5	3	0	20	73	7	27	394
8:00 AM	3	74	1	1	156	7	11	0	16	62	6	29	366
8:15 AM	6	63	2	2	163	2	6	0	14	54	15	21	348
8:30 AM	8	63	1	1	155	4	6	0	15	57	5	13	328
8:45 AM	9	62	1	2	143	6	4	1	8	51	11	17	315
VOLUMES	54	475	8	8	1,402	34	46	1	126	471	74	181	2,880
APPROACH %	10%	88%	1%	1%	97%	2%	27%	1%	73%	65%	10%	25%	
APP/DEPART	537	/	703	1,444	/	2,004	173	/	16	726	/	157	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	22	239	4	3	794	21	23	0	68	263	32	111	1,580
APPROACH %	8%	90%	2%	0%	97%	3%	25%	0%	75%	65%	8%	27%	
PEAK HR FACTOR		0.849			0.905			0.843			0.949		0.947
APP/DEPART	265	/	373	818	/	1,125	91	/	7	406	/	75	0
PM 4:00 PM	14	140	3	0	100	2	7	0	13	55	6	50	390
4:15 PM	6	149	3	1	106	8	5	0	27	49	11	53	418
4:30 PM	0	134	1	4	101	3	8	0	21	52	6	48	378
4:45 PM	6	153	1	2	110	6	3	0	8	50	10	43	392
5:00 PM	7	153	2	1	111	1	5	0	27	53	3	55	418
5:15 PM	17	159	2	0	87	7	7	1	10	60	7	69	426
5:30 PM	12	121	1	2	102	4	7	0	22	55	7	71	404
5:45 PM	7	117	1	0	95	4	5	0	9	51	9	52	350
VOLUMES	69	1,126	14	10	812	35	47	1	137	425	59	441	3,176
APPROACH %	6%	93%	1%	1%	95%	4%	25%	1%	74%	46%	6%	48%	
APP/DEPART	1,209	/	1,615	857	/	1,378	185	/	24	925	/	159	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	42	586	6	5	410	18	22	1	67	218	27	238	1,640
APPROACH %	7%	92%	1%	1%	95%	4%	24%	1%	74%	45%	6%	49%	
PEAK HR FACTOR		0.890			0.917			0.703			0.888		0.962
APP/DEPART	634	/	847	433	/	697	90	/	11	483	/	85	0

U-TURNS

	NB	SB	EB	WB	TTL
LANES	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1
8:30 AM	2	0	0	0	2
8:45 AM	3	0	0	0	3
VOLUMES	5	1	0	0	6
4:00 PM	0	0	0	0	0
4:15 PM	2	0	0	0	2
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	1	0	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	0	1
5:45 PM	0	0	0	0	0
VOLUMES	4	1	0	0	5



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Little Morongo	LOCATION #:	9
	EAST & WEST:	Mission Lakes	CONTROL:	STOP ALL

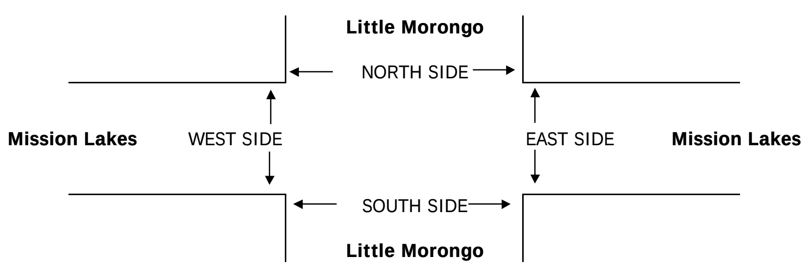
NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Little Morongo			SOUTHBOUND Little Morongo			EASTBOUND Mission Lakes			WESTBOUND Mission Lakes				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	1	0	1	1	0	1	1	1	1	1	1		0	0	0	0	
AM 7:00 AM	7	6	11	2	12	7	2	20	7	23	25	1	123	0	0	0	0	0
7:15 AM	6	3	26	8	19	7	0	34	20	42	36	3	204	0	0	0	0	0
7:30 AM	10	9	18	6	16	4	4	18	17	47	37	9	195	0	0	0	0	0
7:45 AM	17	9	9	3	17	2	5	16	13	15	18	3	127	0	0	0	0	0
8:00 AM	9	10	6	3	16	4	4	19	14	15	22	5	127	0	0	0	0	0
8:15 AM	8	10	12	12	18	4	2	23	18	18	18	8	151	0	0	0	0	0
8:30 AM	16	6	11	3	25	5	3	20	9	19	34	5	156	0	0	0	0	0
8:45 AM	7	7	8	4	24	3	4	14	15	13	24	4	127	0	0	0	0	0
VOLUMES	80	60	101	41	147	36	24	164	113	192	214	38	1,210	0	0	0	0	0
APPROACH %	33%	25%	42%	18%	66%	16%	8%	54%	38%	43%	48%	9%						
APP/DEPART	241	/	122	224	/	452	301	/	306	444	/	330	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	42	31	59	20	68	17	13	87	64	119	113	20	653					
APPROACH %	32%	23%	45%	19%	65%	16%	8%	53%	39%	47%	45%	8%						
PEAK HR FACTOR		0.892			0.772			0.759			0.677		0.800					
APP/DEPART	132	/	64	105	/	251	164	/	166	252	/	172	0					
PM 4:00 PM	24	18	11	2	24	1	5	21	13	11	24	3	157	0	0	0	0	0
4:15 PM	19	17	23	4	13	6	3	25	20	11	23	9	173	0	0	0	0	0
4:30 PM	24	19	16	4	13	0	10	18	13	14	21	5	157	0	0	0	0	0
4:45 PM	20	13	13	1	11	4	5	24	14	8	20	5	138	0	0	0	0	0
5:00 PM	26	18	14	3	9	3	3	35	12	4	23	4	154	0	0	0	0	0
5:15 PM	12	10	13	3	8	3	4	37	16	7	21	5	139	0	0	0	0	0
5:30 PM	20	15	9	1	7	4	6	31	11	8	31	7	150	0	0	0	0	0
5:45 PM	13	9	12	5	3	3	9	16	10	8	29	6	123	0	0	0	0	0
VOLUMES	158	119	111	23	88	24	45	207	109	71	192	44	1,191	0	0	0	0	0
APPROACH %	41%	31%	29%	17%	65%	18%	12%	57%	30%	23%	63%	14%						
APP/DEPART	388	/	208	135	/	268	361	/	341	307	/	374	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	87	67	63	11	61	11	23	88	60	44	88	22	625					
APPROACH %	40%	31%	29%	13%	73%	13%	13%	51%	35%	29%	57%	14%						
PEAK HR FACTOR		0.919			0.769			0.891			0.895		0.903					
APP/DEPART	217	/	112	83	/	165	171	/	162	154	/	186	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Little Morongo	LOCATION #:	10
	EAST & WEST:	Pierson	CONTROL:	STOP ALL

NOTES:

AM PM MD OTHER OTHER

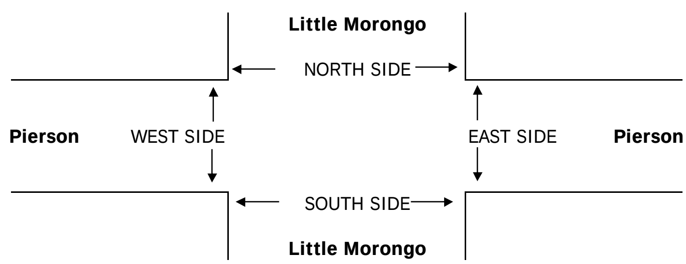
▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Little Morongo			Little Morongo			Pierson			Pierson			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	1	0	1	1	
AM 7:00 AM	3	8	3	6	23	11	5	21	10	7	33	10	140
7:15 AM	2	13	17	18	48	7	13	49	23	19	41	10	260
7:30 AM	7	11	22	28	44	4	9	59	8	17	51	16	276
7:45 AM	4	20	26	19	25	9	3	59	10	26	54	14	269
8:00 AM	4	10	6	15	30	6	6	33	13	18	33	11	185
8:15 AM	4	14	8	14	34	7	7	30	11	7	33	10	179
8:30 AM	4	17	5	15	24	6	5	33	16	7	32	14	178
8:45 AM	7	15	6	15	31	8	3	43	10	5	35	12	190
VOLUMES	35	108	93	130	259	58	51	327	101	106	312	97	1,677
APPROACH %	15%	46%	39%	29%	58%	13%	11%	68%	21%	21%	61%	19%	
APP/DEPART	236	/	256	447	/	466	479	/	550	515	/	405	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	17	54	71	80	147	26	31	200	54	80	179	51	990
APPROACH %	12%	38%	50%	32%	58%	10%	11%	70%	19%	26%	58%	16%	
PEAK HR FACTOR		0.710			0.832			0.838			0.824		0.897
APP/DEPART	142	/	136	253	/	281	285	/	351	310	/	222	0
PM 4:00 PM	19	31	21	16	18	5	2	41	5	14	53	16	241
4:15 PM	6	30	10	19	29	3	9	37	9	7	40	24	223
4:30 PM	17	34	11	14	24	3	6	46	6	8	46	20	235
4:45 PM	10	28	13	8	24	3	6	47	7	9	35	17	207
5:00 PM	15	34	26	11	16	1	2	50	6	5	51	23	240
5:15 PM	11	23	15	12	12	2	3	54	7	6	57	13	215
5:30 PM	8	26	15	9	14	2	6	51	3	9	45	19	207
5:45 PM	7	22	19	6	18	2	3	58	7	7	35	15	199
VOLUMES	93	228	130	95	155	21	37	384	50	65	362	147	1,767
APPROACH %	21%	51%	29%	35%	57%	8%	8%	82%	11%	11%	63%	26%	
APP/DEPART	451	/	412	271	/	270	471	/	609	574	/	476	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	52	123	55	57	95	14	23	171	27	38	174	77	906
APPROACH %	23%	53%	24%	34%	57%	8%	10%	77%	12%	13%	60%	27%	
PEAK HR FACTOR		0.810			0.814			0.921			0.870		0.940
APP/DEPART	230	/	223	166	/	160	221	/	283	289	/	240	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Little Morongo	LOCATION #:	11
	EAST & WEST:	Two Bunch Palms	CONTROL:	STOP ALL

NOTES:

AM PM MD OTHER OTHER

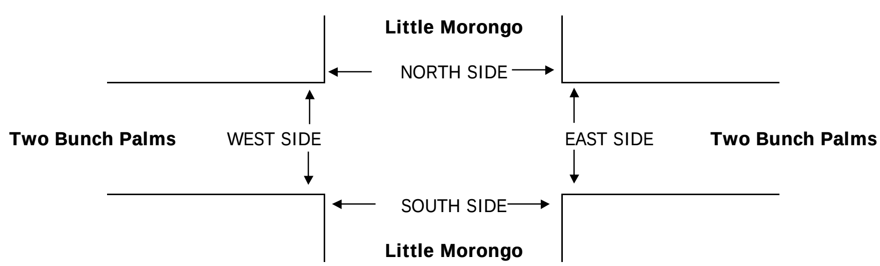
N ▲ ◄ W E ► S ▼

Add U-Turns to Left Turns

	NORTHBOUND Little Morongo			SOUTHBOUND Little Morongo			EASTBOUND Two Bunch Palms			WESTBOUND Two Bunch Palms			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
AM 7:00 AM	2	6	7	11	36	1	0	0	8	33	2	8	114
7:15 AM	0	34	23	22	63	0	0	1	1	43	2	7	196
7:30 AM	2	36	22	19	50	1	1	2	10	64	1	7	215
7:45 AM	0	37	15	25	48	0	0	4	0	34	1	11	175
8:00 AM	0	16	20	18	50	0	0	1	4	46	2	4	161
8:15 AM	3	15	30	19	31	0	0	1	1	53	1	11	165
8:30 AM	1	13	19	21	31	0	0	5	2	41	3	13	149
8:45 AM	2	16	21	15	30	0	0	2	1	32	1	10	130
VOLUMES	10	173	157	150	339	2	1	16	27	346	13	71	1,305
APPROACH %	3%	51%	46%	31%	69%	0%	2%	36%	61%	80%	3%	17%	
APP/DEPART	340	/	245	491	/	711	44	/	324	430	/	25	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	2	123	80	84	211	1	1	8	15	187	6	29	747
APPROACH %	1%	60%	39%	28%	71%	0%	4%	33%	63%	84%	3%	13%	
PEAK HR FACTOR		0.854			0.871			0.462			0.771		0.869
APP/DEPART	205	/	153	296	/	413	24	/	172	222	/	9	0
PM 4:00 PM	4	42	57	10	22	2	0	3	0	30	0	24	194
4:15 PM	1	39	45	14	28	1	0	4	1	25	3	9	170
4:30 PM	3	40	57	9	28	0	0	1	2	32	5	21	198
4:45 PM	6	46	44	12	30	0	0	3	1	27	1	15	185
5:00 PM	3	55	42	9	20	1	0	1	2	19	2	13	167
5:15 PM	1	43	47	17	14	0	0	3	0	17	4	16	162
5:30 PM	2	32	60	9	20	1	0	4	0	28	2	8	166
5:45 PM	0	37	40	13	24	0	0	2	0	17	1	15	149
VOLUMES	20	334	392	93	186	5	0	21	6	195	18	121	1,391
APPROACH %	3%	45%	53%	33%	65%	2%	0%	78%	22%	58%	5%	36%	
APP/DEPART	746	/	456	284	/	387	27	/	505	334	/	43	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	14	167	203	45	108	3	0	11	4	114	9	69	747
APPROACH %	4%	43%	53%	29%	69%	2%	0%	73%	27%	59%	5%	36%	
PEAK HR FACTOR		0.932			0.907			0.750			0.828		0.943
APP/DEPART	384	/	236	156	/	226	15	/	259	192	/	26	0

U-TURNS

	NB	SB	EB	WB	TTL
LANES	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
VOLUMES	0	0	0	1	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	1	0	0	1



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Apr 17, 18

LOCATION: Desert Hot Springs
NORTH & SOUTH: Little Morongo
EAST & WEST: Dillon

PROJECT #: SC1686
LOCATION #: 12
CONTROL: STOP ALL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Little Morongo			SOUTHBOUND Little Morongo			EASTBOUND Dillon			WESTBOUND Dillon			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	1	0	1	1	0	
AM 7:00 AM	0	0	0	44	0	32	11	27	0	0	45	15	174
7:15 AM	0	0	0	44	0	55	26	30	0	0	57	22	234
7:30 AM	0	0	0	44	0	68	28	21	0	0	75	29	265
7:45 AM	0	0	0	43	0	63	29	29	0	1	63	49	277
8:00 AM	0	0	0	33	0	42	21	35	0	0	66	18	215
8:15 AM	1	1	0	33	0	67	26	35	1	0	50	17	231
8:30 AM	0	0	0	38	0	44	28	29	0	0	65	16	220
8:45 AM	0	2	0	29	0	36	19	27	1	0	57	18	189
VOLUMES	1	3	0	308	0	407	188	233	2	1	478	184	1,805
APPROACH %	25%	75%	0%	43%	0%	57%	44%	55%	0%	0%	72%	28%	
APP/DEPART	4	/	375	715	/	3	423	/	541	663	/	886	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	164	0	228	104	115	0	1	261	118	991
APPROACH %	0%	0%	0%	42%	0%	58%	47%	53%	0%	0%	69%	31%	
PEAK HR FACTOR		0.000			0.875			0.944			0.841		0.894
APP/DEPART	0	/	222	392	/	1	219	/	279	380	/	489	0
PM 4:00 PM	0	0	0	24	0	33	65	49	0	1	38	37	247
4:15 PM	0	0	1	19	0	32	57	54	0	1	53	29	246
4:30 PM	0	0	0	36	0	32	57	55	0	0	42	42	264
4:45 PM	0	0	0	29	0	41	61	67	0	0	46	38	282
5:00 PM	0	0	0	20	0	26	51	67	0	0	44	48	256
5:15 PM	0	0	0	26	0	16	62	57	0	0	36	26	223
5:30 PM	0	2	0	15	1	28	71	47	0	0	40	25	229
5:45 PM	0	0	0	27	0	23	43	43	0	0	35	32	203
VOLUMES	0	2	1	196	1	231	467	439	0	2	334	277	1,950
APPROACH %	0%	67%	33%	46%	0%	54%	52%	48%	0%	0%	54%	45%	
APP/DEPART	3	/	746	428	/	3	906	/	636	613	/	565	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	0	1	104	0	131	226	243	0	1	185	157	1,048
APPROACH %	0%	0%	100%	44%	0%	56%	48%	52%	0%	0%	54%	46%	
PEAK HR FACTOR		0.250			0.839			0.916			0.932		0.929
APP/DEPART	1	/	383	235	/	1	469	/	348	343	/	316	0

U-TURNS

	NB	SB	EB	WB	TTL
LANES	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0

Little Morongo

NORTH SIDE

Dillon WEST SIDE EAST SIDE Dillon

SOUTH SIDE

Little Morongo

PEDESTRIAN + BIKE CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM		
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR			4:15 PM		

PEDESTRIAN CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	0	0	0	0	0

BICYCLE CROSSINGS

	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR					
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

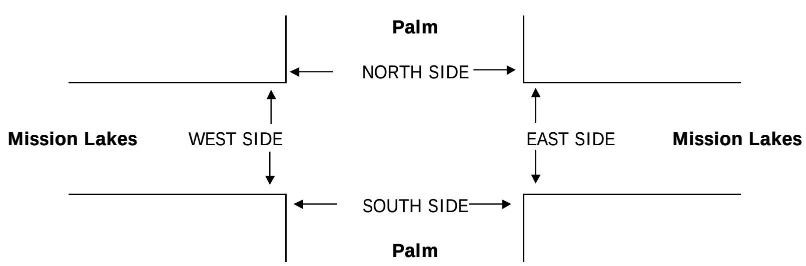
DATE:				
Tue, Apr 17, 18	LOCATION: Desert Hot Springs	NORTH & SOUTH: Palm	EAST & WEST: Mission Lakes	
	PROJECT #: SC1686	LOCATION #: 14	CONTROL: STOP ALL	

NOTES:

AM / PM / MD / OTHER / OTHER — N ▲ / S ▼ / ◄ W / E ►

☑ Add U-Turns to Left Turns

	NORTHBOUND (Palm)			SOUTHBOUND (Palm)			EASTBOUND (Mission Lakes)			WESTBOUND (Mission Lakes)				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	0	1	0	0	2	0	0	1	0		0	0	0	0	
AM 7:00 AM	34	2	4	0	4	1	0	2	32	21	9	0	109	0	0	0	0	0
7:15 AM	82	8	4	0	8	0	0	6	58	21	14	0	201	0	0	0	0	0
7:30 AM	62	1	5	0	8	2	2	13	72	18	15	0	198	0	0	0	0	0
7:45 AM	32	2	8	1	2	1	0	2	41	12	5	1	107	0	0	0	0	0
8:00 AM	32	3	5	0	6	1	2	9	40	19	5	1	123	0	0	0	0	0
8:15 AM	41	1	8	0	3	0	1	2	39	11	10	0	116	0	0	0	0	0
8:30 AM	65	4	5	0	3	1	0	8	49	11	5	0	151	0	0	0	0	0
8:45 AM	34	2	10	0	4	0	1	6	47	9	7	0	120	0	0	0	0	0
VOLUMES	382	23	49	1	38	6	6	48	378	122	70	2	1,125	0	0	0	0	0
APPROACH %	84%	5%	11%	2%	84%	13%	1%	11%	88%	63%	36%	1%						
APP/DEPART	454	/	31	45	/	538	432	/	98	194	/	458	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	208	14	22	1	24	4	4	30	211	70	39	2	629					
APPROACH %	85%	6%	9%	3%	83%	14%	2%	12%	86%	63%	35%	2%						
PEAK HR FACTOR		0.649			0.725			0.704			0.793		0.782					
APP/DEPART	244	/	20	29	/	305	245	/	53	111	/	251	0					
PM 4:00 PM	44	1	20	0	4	1	1	9	34	12	8	0	134	0	0	1	0	1
4:15 PM	63	2	15	0	5	1	2	11	28	12	4	0	143	0	0	0	0	0
4:30 PM	45	10	18	0	2	0	1	3	28	15	4	1	127	0	0	0	0	0
4:45 PM	48	1	16	0	1	0	0	4	28	10	5	0	113	0	0	0	0	0
5:00 PM	51	5	13	0	1	0	1	7	49	6	2	0	135	0	0	0	0	0
5:15 PM	58	5	13	1	2	2	1	9	31	7	3	0	132	0	0	0	0	0
5:30 PM	48	6	16	0	1	0	0	9	33	8	8	0	129	0	0	0	0	0
5:45 PM	56	1	10	0	2	1	0	4	37	14	7	1	133	0	0	0	0	0
VOLUMES	413	31	121	1	18	5	6	56	268	84	41	2	1,046	0	0	1	0	1
APPROACH %	73%	5%	21%	4%	75%	21%	2%	17%	81%	66%	32%	2%						
APP/DEPART	565	/	38	24	/	370	330	/	178	127	/	460	0					
BEGIN PEAK HR		5:00 PM																
VOLUMES	213	17	52	1	6	3	2	29	150	35	20	1	529					
APPROACH %	76%	6%	18%	10%	60%	30%	1%	16%	83%	63%	36%	2%						
PEAK HR FACTOR		0.928			0.500			0.794			0.636		0.980					
APP/DEPART	282	/	20	10	/	191	181	/	82	56	/	236	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	15
	EAST & WEST:	Pierson	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER

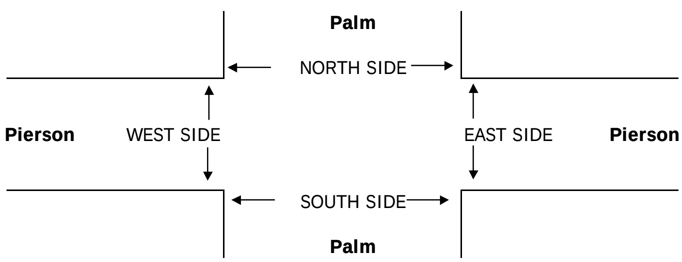
▲ N ◀ W E ▶ S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Pierson			WESTBOUND Pierson			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
AM 7:00 AM	29	60	6	1	105	3	1	12	27	16	25	4	289
7:15 AM	39	85	15	3	131	8	3	15	30	15	31	8	383
7:30 AM	61	61	7	5	123	8	3	34	38	19	55	3	417
7:45 AM	58	64	13	8	91	6	2	43	51	18	58	8	420
8:00 AM	35	60	16	8	108	5	8	40	51	22	26	8	387
8:15 AM	27	53	12	13	99	11	3	23	30	17	30	15	333
8:30 AM	26	74	13	5	86	7	7	20	21	16	24	11	310
8:45 AM	30	70	19	9	88	6	8	23	39	14	23	14	343
VOLUMES	305	527	101	52	831	54	35	210	287	137	272	71	2,882
APPROACH %	33%	56%	11%	6%	89%	6%	7%	39%	54%	29%	57%	15%	
APP/DEPART	933	/	633	937	/	1,255	532	/	363	480	/	631	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	193	270	51	24	453	27	16	132	170	74	170	27	1,607
APPROACH %	38%	53%	10%	5%	90%	5%	5%	42%	53%	27%	63%	10%	
PEAK HR FACTOR		0.924			0.887			0.803			0.807		0.957
APP/DEPART	514	/	313	504	/	697	318	/	207	271	/	390	0
PM 4:00 PM	28	153	19	4	96	7	15	30	34	23	29	5	443
4:15 PM	42	135	23	10	95	12	10	23	36	16	21	7	430
4:30 PM	31	133	7	8	89	9	9	23	34	19	19	7	388
4:45 PM	31	119	12	8	79	7	6	18	37	15	27	12	371
5:00 PM	39	136	14	7	94	10	8	25	43	15	19	11	421
5:15 PM	32	136	17	3	76	7	11	21	34	24	29	7	397
5:30 PM	39	129	13	6	74	13	12	30	43	21	27	10	417
5:45 PM	44	145	16	6	91	7	11	25	41	8	44	11	449
VOLUMES	286	1,086	121	52	694	72	82	195	302	141	215	70	3,316
APPROACH %	19%	73%	8%	6%	85%	9%	14%	34%	52%	33%	50%	16%	
APP/DEPART	1,493	/	1,238	818	/	1,137	579	/	369	426	/	572	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	154	546	60	22	335	37	42	101	161	68	119	39	1,684
APPROACH %	20%	72%	8%	6%	85%	9%	14%	33%	53%	30%	53%	17%	
PEAK HR FACTOR		0.927			0.887			0.894			0.897		0.938
APP/DEPART	760	/	627	394	/	563	304	/	184	226	/	310	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	1	0	0	1	2



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	16
	EAST & WEST:	Hacienda	CONTROL:	SIGNAL

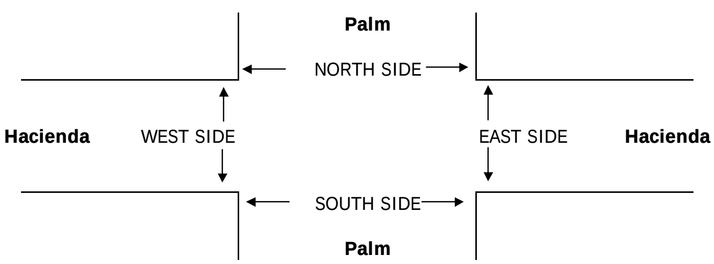
NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Hacienda			WESTBOUND Hacienda				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	1	2	0	1	1	1		0	0	0	0	
AM 7:00 AM	16	74	7	12	150	0	3	9	18	34	15	27	365	2	0	0	0	2
7:15 AM	13	140	7	14	190	2	5	16	17	45	23	21	493	0	0	0	0	0
7:30 AM	16	156	11	21	168	6	4	21	18	26	39	30	516	0	0	0	0	0
7:45 AM	14	143	11	24	127	5	5	41	27	19	33	30	479	1	0	0	0	1
8:00 AM	7	126	15	26	172	9	9	46	31	31	26	15	513	1	0	0	0	1
8:15 AM	10	109	15	31	137	12	5	36	21	48	23	21	468	0	0	0	0	0
8:30 AM	15	136	12	16	126	4	6	24	24	51	26	22	462	2	0	1	0	3
8:45 AM	11	123	15	19	145	9	16	11	6	42	25	26	448	0	1	0	0	1
VOLUMES	102	1,007	93	163	1,215	47	53	204	162	296	210	192	3,744	6	1	1	0	8
APPROACH %	8%	84%	8%	11%	85%	3%	13%	49%	39%	42%	30%	28%						
APP/DEPART	1,202	/	1,252	1,425	/	1,679	419	/	459	698	/	354	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	50	565	44	85	657	22	23	124	93	121	121	96	2,001					
APPROACH %	8%	86%	7%	11%	86%	3%	10%	52%	39%	36%	36%	28%						
PEAK HR FACTOR		0.900			0.923			0.698			0.889		0.969					
APP/DEPART	659	/	684	764	/	873	240	/	253	338	/	191	0					
PM 4:00 PM	26	234	22	27	149	6	9	29	18	34	23	35	612	5	0	0	0	5
4:15 PM	19	191	19	30	131	11	9	33	16	42	25	42	568	2	0	0	0	2
4:30 PM	15	212	12	32	138	12	11	16	15	33	26	26	548	0	0	0	0	0
4:45 PM	26	191	15	27	116	7	13	25	19	39	27	29	534	0	0	0	0	0
5:00 PM	14	197	16	26	139	7	12	25	21	41	31	25	554	4	0	0	0	4
5:15 PM	28	221	21	33	136	5	8	23	16	38	29	17	575	4	0	0	0	4
5:30 PM	19	226	20	26	135	8	11	26	22	44	36	25	598	1	0	0	0	1
5:45 PM	23	236	12	27	131	6	9	27	17	47	30	30	595	1	0	0	0	1
VOLUMES	170	1,708	137	228	1,075	62	82	204	144	318	227	229	4,584	17	0	0	0	17
APPROACH %	8%	85%	7%	17%	79%	5%	19%	47%	33%	41%	29%	30%						
APP/DEPART	2,015	/	2,019	1,365	/	1,554	430	/	569	774	/	442	0					
BEGIN PEAK HR		5:00 PM																
VOLUMES	84	880	69	112	541	26	40	101	76	170	126	97	2,322					
APPROACH %	8%	85%	7%	16%	80%	4%	18%	47%	35%	43%	32%	25%						
PEAK HR FACTOR		0.953			0.976			0.919			0.918		0.971					
APP/DEPART	1,033	/	1,017	679	/	797	217	/	282	393	/	226	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T218

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	17
	EAST & WEST:	Two Bunch Palms	CONTROL:	SIGNAL

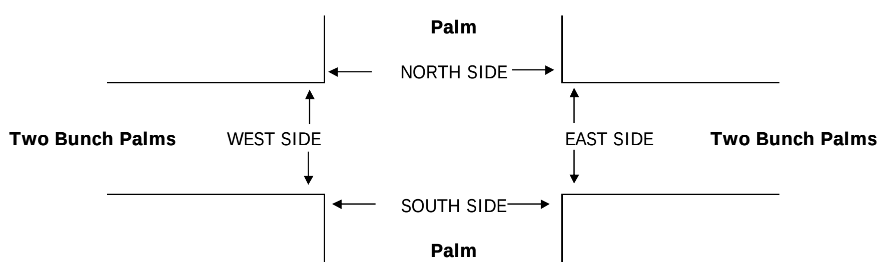
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND (Palm)			SOUTHBOUND (Palm)			EASTBOUND (Two Bunch Palms)			WESTBOUND (Two Bunch Palms)				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	1	1	1	1	1	1		0	0	0	0	
AM 7:00 AM	29	95	39	15	175	6	5	22	85	80	19	5	575	2	2	0	0	4
7:15 AM	32	149	109	22	256	3	6	67	86	86	42	13	871	3	2	0	0	5
7:30 AM	57	155	34	24	247	7	10	58	102	67	41	16	818	7	4	0	0	11
7:45 AM	50	176	19	10	181	8	12	22	100	51	25	6	660	1	0	0	0	1
8:00 AM	42	114	26	8	201	6	12	35	85	55	31	10	625	4	0	0	0	4
8:15 AM	63	155	22	12	166	9	13	29	69	50	26	5	619	5	1	1	0	7
8:30 AM	40	132	17	16	195	9	15	37	77	79	37	7	661	3	2	0	0	5
8:45 AM	45	152	24	13	176	5	25	43	64	70	22	9	648	3	1	0	0	4
VOLUMES	358	1,128	290	120	1,597	53	98	313	668	538	243	71	5,477	28	12	1	0	41
APPROACH %	20%	64%	16%	7%	90%	3%	9%	29%	62%	63%	29%	8%						
APP/DEPART	1,776	/	1,308	1,770	/	2,831	1,079	/	711	852	/	627	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	181	594	188	64	885	24	40	182	373	259	139	45	2,974					
APPROACH %	19%	62%	20%	7%	91%	2%	7%	31%	63%	58%	31%	10%						
PEAK HR FACTOR		0.830			0.866			0.875			0.785		0.854					
APP/DEPART	963	/	685	973	/	1,532	595	/	428	443	/	329	0					
PM 4:00 PM	37	247	35	27	208	11	23	54	60	51	44	16	813	2	3	0	0	5
4:15 PM	42	219	36	28	156	8	28	40	50	73	34	14	728	7	2	0	0	9
4:30 PM	49	190	39	31	152	16	27	43	61	28	33	32	701	3	4	0	0	7
4:45 PM	57	234	61	23	137	11	29	46	57	50	34	20	759	2	5	0	1	8
5:00 PM	43	233	38	30	169	4	22	41	57	58	25	19	739	2	3	0	0	5
5:15 PM	38	257	34	27	161	6	26	43	48	63	40	22	765	2	4	0	0	6
5:30 PM	48	256	36	28	159	7	25	34	76	71	32	23	795	2	6	0	0	8
5:45 PM	51	263	42	18	167	4	25	43	47	56	32	29	777	1	4	0	0	5
VOLUMES	365	1,899	321	212	1,309	67	205	344	456	450	274	175	6,077	21	31	0	1	53
APPROACH %	14%	73%	12%	13%	82%	4%	20%	34%	45%	50%	30%	19%						
APP/DEPART	2,585	/	2,310	1,588	/	2,235	1,005	/	847	899	/	685	0					
BEGIN PEAK HR		5:00 PM																
VOLUMES	180	1,009	150	103	656	21	98	161	228	248	129	93	3,076					
APPROACH %	13%	75%	11%	13%	84%	3%	20%	33%	47%	53%	27%	20%						
PEAK HR FACTOR		0.940			0.961			0.902			0.933		0.967					
APP/DEPART	1,339	/	1,217	780	/	1,139	487	/	397	470	/	323	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	18
	EAST & WEST:	Dillon	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER

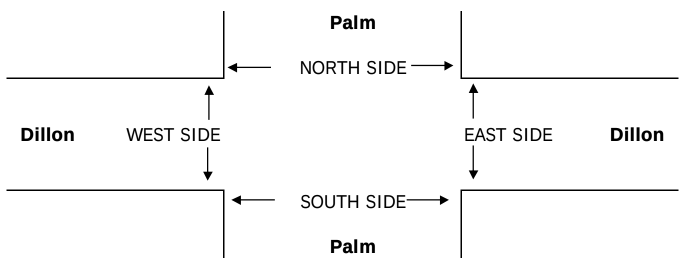
▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Dillon			WESTBOUND Dillon			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	1	1	1	1	1	
AM 7:00 AM	15	95	12	9	301	15	8	16	49	79	44	11	654
7:15 AM	26	123	11	3	369	22	12	13	67	80	51	25	802
7:30 AM	38	130	17	17	378	28	4	15	60	83	55	7	832
7:45 AM	30	140	25	12	238	17	12	20	49	67	62	13	685
8:00 AM	16	116	17	7	242	24	11	14	37	47	32	16	579
8:15 AM	18	116	25	9	265	22	17	19	38	60	39	11	639
8:30 AM	18	112	16	10	289	18	15	11	35	77	26	14	641
8:45 AM	30	126	18	20	215	28	19	15	32	40	29	20	592
VOLUMES	191	958	141	87	2,297	174	98	123	367	533	338	117	5,424
APPROACH %	15%	74%	11%	3%	90%	7%	17%	21%	62%	54%	34%	12%	
APP/DEPART	1,290	/	1,173	2,558	/	3,199	588	/	351	988	/	701	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	109	488	65	41	1,286	82	36	64	225	309	212	56	2,973
APPROACH %	16%	74%	10%	3%	91%	6%	11%	20%	69%	54%	37%	10%	
PEAK HR FACTOR		0.849			0.833			0.883			0.925		0.893
APP/DEPART	662	/	580	1,409	/	1,822	325	/	170	577	/	401	0
PM 4:00 PM	39	258	53	19	198	24	25	39	27	31	21	21	755
4:15 PM	34	283	46	20	159	33	21	35	25	38	28	17	739
4:30 PM	48	277	50	25	198	17	35	29	39	27	27	18	790
4:45 PM	30	311	43	17	151	21	42	34	31	34	35	24	773
5:00 PM	46	255	44	19	182	18	23	44	29	33	21	29	743
5:15 PM	30	363	55	21	179	17	36	35	26	26	17	32	837
5:30 PM	38	310	57	16	183	26	28	33	24	36	30	33	814
5:45 PM	39	281	56	24	125	24	21	35	16	28	25	24	698
VOLUMES	304	2,338	404	161	1,375	180	231	284	217	253	204	198	6,149
APPROACH %	10%	77%	13%	9%	80%	10%	32%	39%	30%	39%	31%	30%	
APP/DEPART	3,046	/	2,767	1,716	/	1,846	732	/	849	655	/	687	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	144	1,239	199	73	695	82	129	146	110	129	103	118	3,167
APPROACH %	9%	78%	13%	9%	82%	10%	34%	38%	29%	37%	29%	34%	
PEAK HR FACTOR		0.883			0.944			0.900			0.884		0.946
APP/DEPART	1,582	/	1,486	850	/	934	385	/	418	350	/	329	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	2	0	0	0	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	2	0	0	0	2
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	1	0	0	0	1



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	19
	EAST & WEST:	20th	CONTROL:	STOP E/W

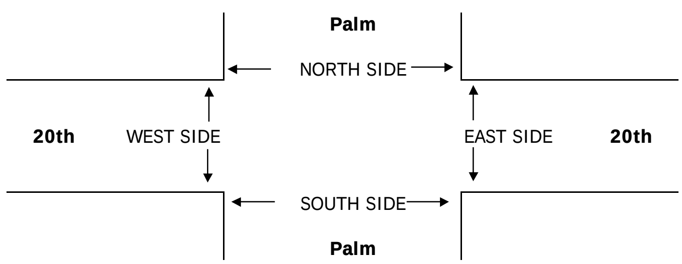
NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND 20th			WESTBOUND 20th			TOTAL	U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	1	2	0	1	2	0	0	1	0	0	1	0		0	0	0	0	
AM																		
7:00 AM	0	133	6	1	398	1	1	0	0	20	0	0	560	0	0	0	0	0
7:15 AM	0	149	2	2	510	0	0	0	1	17	0	1	682	0	0	0	0	0
7:30 AM	0	193	2	2	529	0	0	0	0	26	0	0	752	0	0	0	0	0
7:45 AM	0	183	6	0	381	0	1	0	0	12	1	1	585	0	0	0	0	0
8:00 AM	0	151	5	2	312	1	0	1	0	6	0	2	480	0	0	0	0	0
8:15 AM	1	160	6	4	370	3	1	0	0	12	1	1	559	0	0	0	0	0
8:30 AM	1	146	8	0	368	0	0	0	3	18	0	1	545	0	0	0	0	0
8:45 AM	0	176	6	1	324	1	0	0	2	7	0	1	518	0	0	0	0	0
VOLUMES	2	1,291	41	12	3,192	6	3	1	6	118	2	7	4,681	0	0	0	0	0
APPROACH %	0%	97%	3%	0%	99%	0%	30%	10%	60%	93%	2%	6%						
APP/DEPART	1,334	/	1,301	3,210	/	3,316	10	/	54	127	/	10	0					
BEGIN PEAK HR		7:00 AM																
VOLUMES	0	658	16	5	1,818	1	2	0	1	75	1	2	2,579					
APPROACH %	0%	98%	2%	0%	100%	0%	67%	0%	33%	96%	1%	3%						
PEAK HR FACTOR		0.864			0.859			0.750			0.750		0.857					
APP/DEPART	674	/	662	1,824	/	1,894	3	/	21	78	/	2	0					
PM																		
4:00 PM	2	366	14	2	243	1	0	0	0	10	0	3	641	0	0	0	0	0
4:15 PM	0	375	16	2	230	0	0	1	5	3	0	3	635	0	0	0	0	0
4:30 PM	0	358	17	3	258	1	0	0	0	11	1	1	650	0	0	0	0	0
4:45 PM	0	390	18	2	198	1	0	0	0	7	0	4	620	0	0	0	0	0
5:00 PM	2	346	21	6	224	3	0	0	0	3	0	0	605	1	0	0	0	1
5:15 PM	1	439	16	4	247	1	1	0	0	4	0	0	713	0	0	0	0	0
5:30 PM	1	395	19	2	220	0	1	0	0	10	0	6	654	0	0	0	0	0
5:45 PM	2	383	18	1	188	0	1	0	0	3	0	5	601	0	0	0	0	0
VOLUMES	8	3,052	139	22	1,808	7	3	1	5	51	1	22	5,119	1	0	0	0	1
APPROACH %	0%	95%	4%	1%	98%	0%	33%	11%	56%	69%	1%	30%						
APP/DEPART	3,199	/	3,077	1,837	/	1,865	9	/	162	74	/	15	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	4	1,570	74	14	889	5	2	0	0	24	0	10	2,592					
APPROACH %	0%	95%	4%	2%	98%	1%	100%	0%	0%	71%	0%	29%						
PEAK HR FACTOR		0.904			0.901			0.500			0.531		0.909					
APP/DEPART	1,648	/	1,582	908	/	914	2	/	88	34	/	8	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM															
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM															
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Palm	LOCATION #:	20
	EAST & WEST:	Varner	CONTROL:	SIGNAL

NOTES:

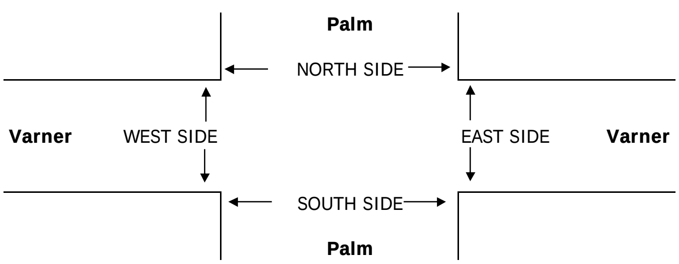
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND (Palm)			SOUTHBOUND (Palm)			EASTBOUND (Varner)			WESTBOUND (Varner)			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	0	1	0	0	1	0	
AM 7:00 AM	0	128	4	6	410	0	0	0	0	7	0	3	558
7:15 AM	0	158	5	15	478	0	0	0	0	19	0	4	679
7:30 AM	0	192	11	8	576	0	0	0	0	20	0	3	810
7:45 AM	0	185	7	6	395	0	0	0	0	9	0	5	607
8:00 AM	0	145	5	12	291	0	0	0	0	12	0	5	470
8:15 AM	0	168	4	4	380	1	0	1	0	12	0	6	576
8:30 AM	0	149	4	8	388	0	0	0	0	9	0	4	562
8:45 AM	0	168	5	5	324	0	0	0	0	4	0	5	511
VOLUMES	0	1,293	45	64	3,242	1	0	1	0	92	0	35	4,773
APPROACH %	0%	97%	3%	2%	98%	0%	0%	100%	0%	72%	0%	28%	
APP/DEPART	1,338	/	1,329	3,307	/	3,334	1	/	109	127	/	1	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	663	27	35	1,859	0	0	0	0	55	0	15	2,654
APPROACH %	0%	96%	4%	2%	98%	0%	0%	0%	0%	79%	0%	21%	
PEAK HR FACTOR		0.850			0.811			0.000			0.761		0.819
APP/DEPART	690	/	679	1,894	/	1,914	0	/	61	70	/	0	0
PM 4:00 PM	1	371	9	7	240	0	0	0	1	3	0	16	648
4:15 PM	0	359	13	4	247	0	0	0	0	18	0	9	650
4:30 PM	0	372	8	4	261	0	0	0	0	9	0	7	661
4:45 PM	1	427	12	8	203	0	0	0	1	12	0	9	673
5:00 PM	0	344	9	5	220	0	0	0	0	5	0	7	590
5:15 PM	0	440	9	3	241	0	0	1	0	5	1	7	707
5:30 PM	0	407	6	4	230	0	0	0	0	13	0	6	666
5:45 PM	0	405	10	5	172	1	0	0	1	5	0	11	610
VOLUMES	2	3,125	76	40	1,814	1	0	1	3	70	1	72	5,205
APPROACH %	0%	98%	2%	2%	98%	0%	0%	25%	75%	49%	1%	50%	
APP/DEPART	3,203	/	3,198	1,855	/	1,887	4	/	116	143	/	4	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	1	1,618	36	20	894	0	0	1	1	35	1	29	2,636
APPROACH %	0%	98%	2%	2%	98%	0%	0%	50%	50%	54%	2%	45%	
PEAK HR FACTOR		0.921			0.936			0.500			0.774		0.932
APP/DEPART	1,655	/	1,648	914	/	930	2	/	56	65	/	2	0

U-TURNS

	NB	SB	EB	WB	TTL
LANES	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	1	0	0	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	1	0	0	1



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

T218

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Mountain View	LOCATION #:	21
	EAST & WEST:	Hacienda	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

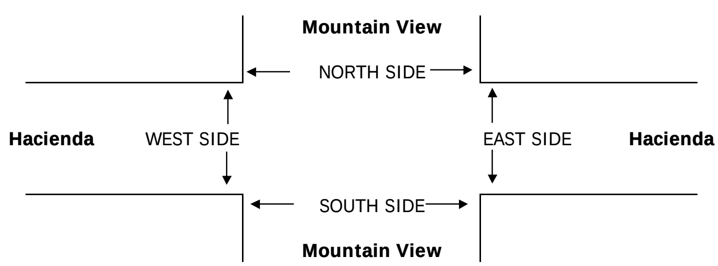
▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Mountain View			SOUTHBOUND Mountain View			EASTBOUND Hacienda			WESTBOUND Hacienda			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	1	0	1	1	1	1	1	0	1	1	0	
AM	7:00 AM	20	6	3	5	9	1	0	27	50	27	56	7	211
	7:15 AM	30	7	6	3	25	4	2	35	54	22	54	12	254
	7:30 AM	20	11	4	4	21	1	2	38	52	24	51	14	242
	7:45 AM	31	12	4	17	18	0	3	40	30	17	45	9	226
	8:00 AM	25	18	11	12	12	1	0	60	25	21	59	7	251
	8:15 AM	18	12	13	16	12	2	1	82	32	22	64	9	283
	8:30 AM	20	14	6	8	13	4	2	50	32	21	95	12	277
	8:45 AM	27	7	7	2	7	1	2	41	26	8	53	6	187
	VOLUMES	191	87	54	67	117	14	12	373	301	162	477	76	1,931
	APPROACH %	58%	26%	16%	34%	59%	7%	2%	54%	44%	23%	67%	11%	
	APP/DEPART	332	/	175	198	/	580	686	/	494	715	/	682	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	94	56	34	53	55	7	6	232	119	81	263	37	1,037
	APPROACH %	51%	30%	18%	46%	48%	6%	2%	65%	33%	21%	69%	10%	
	PEAK HR FACTOR		0.852			0.821			0.776			0.744		0.916
	APP/DEPART	184	/	99	115	/	255	357	/	319	381	/	364	0
PM	4:00 PM	32	16	16	11	16	3	5	58	28	6	57	12	260
	4:15 PM	47	16	12	8	3	4	2	58	39	15	49	6	259
	4:30 PM	39	18	19	6	7	5	2	58	32	7	36	6	235
	4:45 PM	36	19	11	3	6	3	1	57	23	10	41	6	216
	5:00 PM	34	21	13	7	8	1	2	68	28	12	41	9	244
	5:15 PM	39	21	10	2	11	2	0	47	33	10	49	9	233
	5:30 PM	46	25	16	7	8	4	5	49	31	7	50	17	265
	5:45 PM	43	22	15	8	7	6	2	49	29	4	52	4	241
	VOLUMES	316	158	112	52	66	28	19	444	243	71	375	69	1,953
	APPROACH %	54%	27%	19%	36%	45%	19%	3%	63%	34%	14%	73%	13%	
	APP/DEPART	586	/	246	146	/	380	706	/	608	515	/	719	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	162	89	54	24	34	13	9	213	121	33	192	39	983
	APPROACH %	53%	29%	18%	34%	48%	18%	3%	62%	35%	13%	73%	15%	
	PEAK HR FACTOR		0.876			0.845			0.875			0.892		0.927
	APP/DEPART	305	/	137	71	/	188	343	/	291	264	/	367	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:45 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR			5:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Mountain View	LOCATION #:	22
	EAST & WEST:	Dillon	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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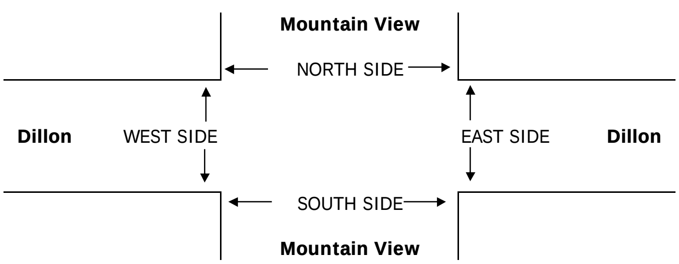
☑ Add U-Turns to Left Turns

		NORTHBOUND Mountain View			SOUTHBOUND Mountain View			EASTBOUND Dillon			WESTBOUND Dillon			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	1	0	1	1	0	1	1	0	1	1	0	
AM	7:00 AM	3	14	4	0	82	21	9	13	25	64	51	3	289
	7:15 AM	12	19	10	0	109	33	5	19	37	41	44	1	330
	7:30 AM	13	29	14	1	106	29	6	21	34	42	52	3	350
	7:45 AM	4	28	20	3	53	20	8	22	23	45	42	7	275
	8:00 AM	17	32	19	3	42	21	8	22	21	38	43	2	268
	8:15 AM	15	33	18	1	61	25	14	26	24	32	45	5	299
	8:30 AM	12	19	21	1	47	33	7	16	19	34	43	4	256
	8:45 AM	16	30	16	2	37	6	9	33	26	20	47	3	245
	VOLUMES	92	204	122	11	537	188	66	172	209	316	367	28	2,312
	APPROACH %	22%	49%	29%	1%	73%	26%	15%	38%	47%	44%	52%	4%	
	APP/DEPART	418	/	298	736	/	1,062	447	/	305	711	/	647	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	32	90	48	4	350	103	28	75	119	192	189	14	1,244
	APPROACH %	19%	53%	28%	1%	77%	23%	13%	34%	54%	49%	48%	4%	
	PEAK HR FACTOR		0.759			0.805			0.910			0.837		0.889
	APP/DEPART	170	/	132	457	/	661	222	/	127	395	/	324	0
PM	4:00 PM	25	54	64	6	39	9	15	48	10	16	31	2	319
	4:15 PM	30	66	52	3	40	10	24	44	16	26	46	4	361
	4:30 PM	29	69	51	3	37	12	22	40	17	26	32	2	340
	4:45 PM	34	71	43	6	34	17	14	49	16	20	35	3	342
	5:00 PM	27	58	42	1	25	18	28	44	12	11	31	2	299
	5:15 PM	27	64	42	1	37	15	15	55	20	25	38	2	341
	5:30 PM	42	81	40	2	41	10	19	48	12	19	33	2	349
	5:45 PM	32	69	30	6	30	11	23	42	18	15	27	2	305
	VOLUMES	246	532	364	28	283	102	160	370	121	158	273	19	2,656
	APPROACH %	22%	47%	32%	7%	69%	25%	25%	57%	19%	35%	61%	4%	
	APP/DEPART	1,142	/	711	413	/	562	651	/	762	450	/	621	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	118	260	210	18	150	48	75	181	59	88	144	11	1,362
	APPROACH %	20%	44%	36%	8%	69%	22%	24%	57%	19%	36%	59%	5%	
	PEAK HR FACTOR		0.987			0.947			0.938			0.799		0.943
	APP/DEPART	588	/	346	216	/	297	315	/	409	243	/	310	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0



PEDESTRIAN + BIKE CROSSINGS

		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR			7:00 AM		
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	PM BEGIN PEAK HR			4:00 PM		

PEDESTRIAN CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	0	0	0	0	0

BICYCLE CROSSINGS

	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Mountain View	LOCATION #:	23
	EAST & WEST:	Varner	CONTROL:	STOP ALL

NOTES:

AM PM MD OTHER OTHER

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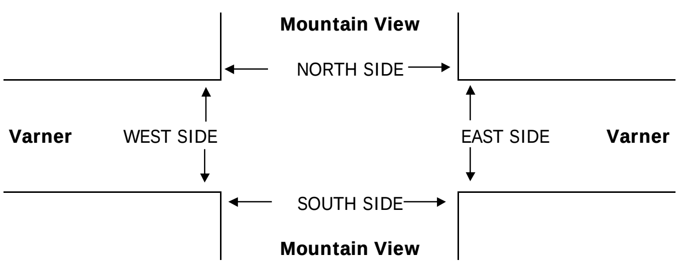
Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Mountain View			Mountain View			Varner			Varner			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	X	X	1	X	1	0	1	X	X	1	1	
AM 7:00 AM	0	0	0	175	0	6	2	9	0	0	5	26	223
7:15 AM	0	0	0	201	0	21	3	14	0	0	4	41	284
7:30 AM	0	0	0	183	0	18	3	16	0	0	3	46	269
7:45 AM	0	0	0	131	0	12	3	11	0	0	5	58	220
8:00 AM	0	0	0	113	0	8	5	7	0	0	8	52	193
8:15 AM	0	0	0	109	0	11	1	5	0	0	8	54	188
8:30 AM	0	0	0	120	0	7	1	13	0	0	5	46	192
8:45 AM	0	0	0	87	0	4	2	6	0	0	4	61	164
VOLUMES	0	0	0	1,119	0	87	20	81	0	0	42	384	1,733
APPROACH %	0%	0%	0%	93%	0%	7%	20%	80%	0%	0%	10%	90%	
APP/DEPART	0	/	404	1,206	/	0	101	/	1,200	426	/	129	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	690	0	57	11	50	0	0	17	171	996
APPROACH %	0%	0%	0%	92%	0%	8%	18%	82%	0%	0%	9%	91%	
PEAK HR FACTOR		0.000			0.841			0.803			0.746		0.877
APP/DEPART	0	/	182	747	/	0	61	/	740	188	/	74	0
PM 4:00 PM	0	0	0	67	0	6	5	12	0	0	18	143	251
4:15 PM	0	0	0	71	0	8	6	10	0	0	14	160	269
4:30 PM	0	0	0	79	0	6	5	9	0	0	12	133	244
4:45 PM	0	0	0	58	0	6	8	11	0	0	17	145	245
5:00 PM	0	0	0	54	0	2	8	5	0	0	5	136	210
5:15 PM	0	0	0	69	0	6	9	2	0	0	13	145	244
5:30 PM	0	0	0	77	0	7	8	5	0	0	6	140	243
5:45 PM	0	0	0	52	0	5	10	5	0	0	12	135	219
VOLUMES	0	0	0	527	0	46	59	59	0	0	97	1,137	1,925
APPROACH %	0%	0%	0%	92%	0%	8%	50%	50%	0%	0%	8%	92%	
APP/DEPART	0	/	1,197	573	/	0	118	/	585	1,234	/	143	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	275	0	26	24	42	0	0	61	581	1,009
APPROACH %	0%	0%	0%	91%	0%	9%	36%	64%	0%	0%	10%	90%	
PEAK HR FACTOR		0.000			0.885			0.868			0.922		0.938
APP/DEPART	0	/	605	301	/	0	66	/	317	642	/	87	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
VOLUMES	0	1	0	0	1



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:00 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC1686
Tue, Apr 17, 18	NORTH & SOUTH:	Long Canyon	LOCATION #:	24
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

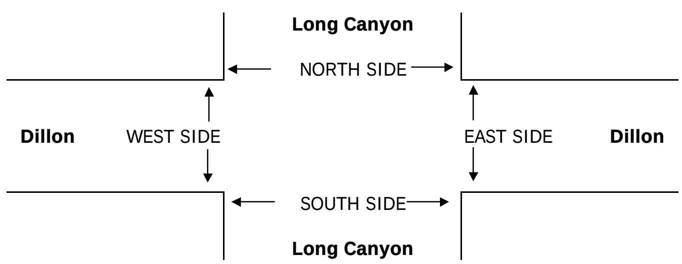
NOTES:

AM PM MD OTHER OTHER

N ▲ ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND Long Canyon			SOUTHBOUND Long Canyon			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
LANES:	0	1	0	0	1	0	1	1	0	1	1	0		0	0	0	0	
AM 7:00 AM	1	0	0	18	1	13	1	12	1	1	98	24	170	0	0	0	0	0
7:15 AM	0	1	0	15	1	7	2	24	3	0	75	23	151	0	0	0	0	0
7:30 AM	1	0	2	13	1	7	6	26	3	0	85	32	176	0	0	0	0	0
7:45 AM	0	1	0	17	1	11	4	32	4	2	90	28	190	0	0	0	0	0
8:00 AM	0	0	1	21	0	6	12	31	4	0	76	20	171	0	0	0	0	0
8:15 AM	0	0	0	18	0	6	10	33	2	0	74	26	169	0	0	0	0	0
8:30 AM	0	0	0	27	2	3	4	28	2	1	77	32	176	0	0	0	0	0
8:45 AM	1	0	1	17	0	2	4	45	4	1	68	19	162	0	0	0	0	0
VOLUMES	3	2	4	146	6	55	43	231	23	5	643	204	1,365	0	0	0	0	0
APPROACH %	33%	22%	44%	71%	3%	27%	14%	78%	8%	1%	75%	24%						
APP/DEPART	9	/	249	207	/	34	297	/	381	852	/	701	0					
BEGIN PEAK HR		7:45 AM																
VOLUMES	0	1	1	83	3	26	30	124	12	3	317	106	706					
APPROACH %	0%	50%	50%	74%	3%	23%	18%	75%	7%	1%	74%	25%						
PEAK HR FACTOR		0.167			0.875			0.883			0.888		0.929					
APP/DEPART	2	/	137	112	/	18	166	/	208	426	/	343	0					
PM 4:00 PM	1	2	2	28	1	8	10	103	1	1	46	27	230	0	1	0	0	1
4:15 PM	2	4	1	34	0	6	6	90	2	0	71	16	232	0	0	0	0	0
4:30 PM	1	0	2	27	2	6	9	81	1	0	45	24	198	0	0	0	0	0
4:45 PM	5	0	1	28	0	3	6	96	0	1	48	13	201	0	1	0	0	1
5:00 PM	1	1	0	31	0	3	4	78	1	0	45	26	190	0	0	0	0	0
5:15 PM	6	1	1	27	0	2	14	76	1	1	54	27	210	0	0	0	0	0
5:30 PM	1	0	0	20	0	3	4	90	0	0	50	35	203	0	0	0	0	0
5:45 PM	0	2	0	20	0	4	8	69	1	0	35	21	160	0	0	0	0	0
VOLUMES	17	10	7	215	3	35	61	683	7	3	394	189	1,624	0	2	0	0	2
APPROACH %	50%	29%	21%	85%	1%	14%	8%	91%	1%	1%	67%	32%						
APP/DEPART	34	/	262	253	/	13	751	/	903	586	/	446	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	9	6	6	117	3	23	31	370	4	2	210	80	861					
APPROACH %	43%	29%	29%	82%	2%	16%	8%	91%	1%	1%	72%	27%						
PEAK HR FACTOR		0.750			0.894			0.888			0.839		0.928					
APP/DEPART	21	/	119	143	/	9	405	/	491	292	/	242	0					



	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM BEGIN PEAK HR			7:45 AM			0	0	0	0	0					
PM 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM BEGIN PEAK HR			4:00 PM			0	0	0	0	0					

Tuesday, April 17, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT1 Worsley north of Mission Lakes. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	2		0					12:00	5		1				
0:15	0		1					12:15	3		3				
0:30	2		0					12:30	1		1				
0:45	0	4	0	1			5	12:45	4	13	0	5			18
1:00	0		0					13:00	2		3				
1:15	0		0					13:15	8		1				
1:30	0		0					13:30	1		2				
1:45	0	0	0	0				13:45	3	14	0	6			20
2:00	0		0					14:00	3		1				
2:15	0		0					14:15	5		3				
2:30	0		0					14:30	4		3				
2:45	0	0	0	0				14:45	1	13	3	10			23
3:00	0		0					15:00	5		0				
3:15	0		0					15:15	3		0				
3:30	0		0					15:30	7		1				
3:45	0	0	0	0				15:45	3	18	3	4			22
4:00	0		0					16:00	5		3				
4:15	0		0					16:15	6		2				
4:30	0		0					16:30	4		1				
4:45	0	0	0	0				16:45	3	18	2	8			26
5:00	0		0					17:00	3		2				
5:15	0		0					17:15	5		3				
5:30	0		0					17:30	6		1				
5:45	0	0	0	0				17:45	2	16	4	10			26
6:00	2		2					18:00	6		2				
6:15	0		1					18:15	2		2				
6:30	0		1					18:30	1		1				
6:45	1	3	1	5			8	18:45	2	11	1	6			17
7:00	0		7					19:00	1		0				
7:15	1		3					19:15	0		0				
7:30	0		1					19:30	3		0				
7:45	2	3	0	11			14	19:45	1	5	0	0			5
8:00	1		4					20:00	0		1				
8:15	0		3					20:15	0		0				
8:30	0		1					20:30	0		1				
8:45	1	2	1	9			11	20:45	1	1	0	2			3
9:00	1		1					21:00	0		0				
9:15	0		1					21:15	0		0				
9:30	1		1					21:30	1		0				
9:45	2	4	3	6			10	21:45	2	3	0	0			3
10:00	0		0					22:00	0		0				
10:15	3		1					22:15	0		0				
10:30	3		1					22:30	0		0				
10:45	0	6	1	3			9	22:45	0	0	0	0			
11:00	2		1					23:00	0		1				
11:15	2		2					23:15	0		0				
11:30	3		2					23:30	0		0				
11:45	2	9	1	6			15	23:45	0	0	0	1			1
Total Vol.		31		41			**72**			112		52			**164**

Daily Totals

NB	SB	EB	WB	Combined
143	93			**236**

	AM			PM		
Split %	43.1%	56.9%	**30.5%**	68.3%	31.7%	**69.5%**
Peak Hour	11:30	6:30	**11:30**	15:30	14:00	**15:30**
Volume	13	12	**20**	21	10	**30**
P.H.F.	0.65	0.43	**0.83**	0.71	0.83	**0.94**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT5 Worsley south of Painted Hills. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	0		1					12:00	0		3				
0:15	0		0					12:15	2		5				
0:30	0		2					12:30	2		1				
0:45	0	0	1	4			4	12:45	2	6	1	10			16
1:00	0		0					13:00	3		5				
1:15	0		0					13:15	3		2				
1:30	0		0					13:30	3		4				
1:45	1	1	0	0			1	13:45	2	11	5	16			27
2:00	0		0					14:00	3		2				
2:15	0		0					14:15	4		1				
2:30	0		0					14:30	7		3				
2:45	0	0	2	2			2	14:45	6	20	1	7			27
3:00	0		0					15:00	7		1				
3:15	0		0					15:15	4		2				
3:30	1		0					15:30	3		0				
3:45	0	1	0	0			1	15:45	4	18	3	6			24
4:00	0		0					16:00	3		4				
4:15	0		0					16:15	4		1				
4:30	0		0					16:30	5		0				
4:45	0	0	0	0				16:45	8	20	0	5			25
5:00	0		0					17:00	3		3				
5:15	1		2					17:15	7		3				
5:30	0		3					17:30	2		1				
5:45	0	1	0	5			6	17:45	2	14	1	8			22
6:00	0		0					18:00	1		0				
6:15	0		3					18:15	0		0				
6:30	3		4					18:30	5		0				
6:45	1	4	3	10			14	18:45	2	8	2	2			10
7:00	1		2					19:00	4		0				
7:15	3		2					19:15	0		0				
7:30	0		7					19:30	4		2				
7:45	1	5	2	13			18	19:45	2	10	0	2			12
8:00	2		4					20:00	2		1				
8:15	2		2					20:15	2		0				
8:30	1		3					20:30	0		0				
8:45	2	7	3	12			19	20:45	1	5	1	2			7
9:00	4		3					21:00	0		0				
9:15	2		2					21:15	0		0				
9:30	0		2					21:30	1		0				
9:45	5	11	1	8			19	21:45	0	1	0	0			1
10:00	2		4					22:00	0		0				
10:15	0		5					22:15	0		1				
10:30	1		1					22:30	0		0				
10:45	3	6	1	11			17	22:45	0	0	0	1			1
11:00	3		2					23:00	2		1				
11:15	1		0					23:15	0		0				
11:30	1		2					23:30	0		0				
11:45	5	10	0	4			14	23:45	0	2	1	2			4
Total Vol.		46		69			**115**			115		61			**176**

Daily Totals

NB	SB	EB	WB	Combined
161	130			**291**

	AM			PM		
Split %	40.0%	60.0%	**39.5%**	65.3%	34.7%	**60.5%**
Peak Hour	9:00	7:15	**7:15**	14:15	13:00	**14:30**
Volume	11	15	**21**	24	16	**31**
P.H.F.	0.55	0.54	**0.75**	0.82	0.80	**0.78**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT6 Worsley south of 18th. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	1		0					12:00	4		1				
0:15	0		0					12:15	6		7				
0:30	0		0					12:30	2		4				
0:45	1	2	1	1			3	12:45	4	16	2	14			30
1:00	0		0					13:00	3		2				
1:15	0		1					13:15	6		3				
1:30	1		0					13:30	5		5				
1:45	0	1	0	1			2	13:45	5	19	1	11			30
2:00	1		0					14:00	4		4				
2:15	0		0					14:15	4		1				
2:30	0		0					14:30	14		3				
2:45	0	1	0	0			1	14:45	11	33	6	14			47
3:00	0		0					15:00	14		2				
3:15	0		0					15:15	12		5				
3:30	0		0					15:30	12		0				
3:45	0	0	0	0				15:45	18	56	3	10			66
4:00	0		0					16:00	7		3				
4:15	0		0					16:15	12		2				
4:30	0		1					16:30	8		1				
4:45	1	1	1	2			3	16:45	12	39	1	7			46
5:00	0		0					17:00	13		4				
5:15	2		7					17:15	14		2				
5:30	0		11					17:30	5		3				
5:45	5	7	1	19			26	17:45	6	38	2	11			49
6:00	2		4					18:00	3		0				
6:15	1		15					18:15	2		1				
6:30	3		3					18:30	5		1				
6:45	9	15	3	25			40	18:45	5	15	2	4			19
7:00	5		6					19:00	3		0				
7:15	5		3					19:15	0		0				
7:30	5		8					19:30	2		1				
7:45	8	23	9	26			49	19:45	2	7	0	1			8
8:00	5		4					20:00	1		0				
8:15	3		3					20:15	2		1				
8:30	2		5					20:30	0		0				
8:45	4	14	8	20			34	20:45	1	4	0	1			5
9:00	3		9					21:00	0		0				
9:15	2		3					21:15	0		0				
9:30	3		3					21:30	2		1				
9:45	12	20	4	19			39	21:45	1	3	0	1			4
10:00	7		3					22:00	0		0				
10:15	4		2					22:15	1		0				
10:30	0		0					22:30	1		0				
10:45	6	17	2	7			24	22:45	2	4	0	0			4
11:00	4		3					23:00	3		0				
11:15	7		1					23:15	0		1				
11:30	5		1					23:30	0		0				
11:45	5	21	3	8			29	23:45	0	3	1	2			5
Total Vol.		122		128			**250**			237		76			**313**

Daily Totals

NB	SB	EB	WB	Combined
359	204			**563**

	AM			PM		
Split %	48.8%	51.2%	**44.4%**	75.7%	24.3%	**55.6%**
Peak Hour	9:30	5:30	**7:00**	15:00	14:30	**14:30**
Volume	26	31	**49**	56	16	**67**
P.H.F.	0.54	0.52	**0.72**	0.89	0.67	**0.99**

ADT8 Diablo north of Power Line. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	0		0					12:00	1		3				
0:15	0		0					12:15	0		0				
0:30	0		0					12:30	0		0				
0:45	0	0	0	0				12:45	1	2	0	3			5
1:00	0		0					13:00	2		1				
1:15	0		0					13:15	4		2				
1:30	0		0					13:30	0		0				
1:45	0	0	0	0				13:45	7	13	2	5			18
2:00	0		0					14:00	1		3				
2:15	0		0					14:15	2		5				
2:30	1		2					14:30	3		1				
2:45	0	1	0	2			3	14:45	6	12	1	10			22
3:00	0		0					15:00	8		4				
3:15	0		0					15:15	3		5				
3:30	0		0					15:30	4		3				
3:45	0	0	0	0				15:45	0	15	6	18			33
4:00	0		0					16:00	2		0				
4:15	0		0					16:15	5		0				
4:30	0		0					16:30	0		1				
4:45	1	1	0	0			1	16:45	0	7	2	3			10
5:00	2		0					17:00	2		2				
5:15	3		0					17:15	8		1				
5:30	5		0					17:30	0		7				
5:45	14	24	0	0			24	17:45	0	10	0	10			20
6:00	8		4					18:00	0		1				
6:15	1		11					18:15	1		0				
6:30	0		1					18:30	1		1				
6:45	0	9	7	23			32	18:45	0	2	0	2			4
7:00	3		6					19:00	0		0				
7:15	0		7					19:15	0		1				
7:30	5		1					19:30	0		0				
7:45	4	12	9	23			35	19:45	0	0	0	1			1
8:00	1		3					20:00	0		0				
8:15	1		4					20:15	0		0				
8:30	0		1					20:30	0		0				
8:45	2	4	2	10			14	20:45	0	0	0	0			
9:00	1		1					21:00	1		0				
9:15	0		0					21:15	0		0				
9:30	2		0					21:30	0		0				
9:45	0	3	1	2			5	21:45	0	1	1	1			2
10:00	0		2					22:00	0		0				
10:15	1		0					22:15	0		0				
10:30	0		1					22:30	0		0				
10:45	1	2	1	4			6	22:45	0	0	0	0			
11:00	0		0					23:00	0		0				
11:15	1		0					23:15	0		0				
11:30	1		1					23:30	0		0				
11:45	1	3	0	1			4	23:45	0	0	0	0			
Total Vol.		59		65			**124**			62		53			**115**

Daily Totals

NB	SB	EB	WB	**Combined**
121	118			**239**

	AM				PM			
	NB	SB		**Total**	NB	SB		**Total**
Split %	47.6%	52.4%		**51.9%**	53.9%	46.1%		**48.1%**
Peak Hour	5:15	6:15		**5:30**	14:45	15:00		**14:45**
Volume	30	25		**43**	21	18		**34**
P.H.F.	0.54	0.57		**0.77**	0.63	0.75		**0.71**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT10 Karen north of Pierson. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	0		0					12:00	0		1				
0:15	0		0					12:15	0		0				
0:30	0		0					12:30	0		0				
0:45	0	0	0	0				12:45	0	0	0	1			1
1:00	0		0					13:00	0		0				
1:15	0		0					13:15	0		0				
1:30	0		0					13:30	2		0				
1:45	0	0	0	0				13:45	1	3	0	0			3
2:00	0		0					14:00	0		1				
2:15	0		0					14:15	0		0				
2:30	0		0					14:30	0		0				
2:45	0	0	0	0				14:45	2	2	0	1			3
3:00	0		0					15:00	0		0				
3:15	0		0					15:15	0		2				
3:30	0		0					15:30	0		0				
3:45	0	0	0	0				15:45	0	0	1	3			3
4:00	0		0					16:00	0		0				
4:15	0		0					16:15	0		1				
4:30	0		0					16:30	0		0				
4:45	0	0	0	0				16:45	3	3	0	1			4
5:00	0		0					17:00	0		1				
5:15	0		0					17:15	1		1				
5:30	0		0					17:30	0		0				
5:45	0	0	0	0				17:45	0	1	0	2			3
6:00	0		0					18:00	0		0				
6:15	0		1					18:15	0		0				
6:30	0		0					18:30	2		1				
6:45	0	0	0	1			1	18:45	0	2	0	1			3
7:00	0		0					19:00	0		0				
7:15	0		0					19:15	0		0				
7:30	1		1					19:30	0		1				
7:45	1	2	1	2			4	19:45	0	0	1	2			2
8:00	0		0					20:00	0		0				
8:15	0		0					20:15	0		0				
8:30	0		0					20:30	1		1				
8:45	0	0	1	1			1	20:45	0	1	0	1			2
9:00	0		1					21:00	0		0				
9:15	0		0					21:15	1		0				
9:30	1		0					21:30	0		0				
9:45	0	1	2	3			4	21:45	0	1	0	0			1
10:00	0		0					22:00	0		0				
10:15	2		1					22:15	0		0				
10:30	0		1					22:30	0		0				
10:45	0	2	0	2			4	22:45	0	0	0	0			
11:00	0		0					23:00	0		0				
11:15	0		0					23:15	1		0				
11:30	0		0					23:30	0		0				
11:45	1	1	0	0			1	23:45	0	1	0	0			1
Total Vol.		6		9			**15**			14		12			**26**

Daily Totals

NB	SB	EB	WB	Combined
20	21			**41**

	AM			PM		
Split %	40.0%	60.0%	**36.6%**	53.8%	46.2%	**63.4%**
Peak Hour	9:30	9:45	**9:30**	16:30	15:00	**16:30**
Volume	3	4	**6**	4	3	**6**
P.H.F.	0.38	0.50	**0.50**	0.25	0.38	**0.50**

ADT14 Indian Canyon east of SR 62 **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:00			4		9			12:00			36		52		
0:15			5		7			12:15			40		60		
0:30			0		9			12:30			36		47		
0:45			6	15	4	29	44	12:45			35	147	62	221	368
1:00			3		5			13:00			45		74		
1:15			2		2			13:15			55		48		
1:30			3		4			13:30			45		56		
1:45			4	12	6	17	29	13:45			50	195	41	219	414
2:00			0		3			14:00			45		67		
2:15			2		3			14:15			42		44		
2:30			0		2			14:30			56		57		
2:45			0	2	6	14	16	14:45			34	177	64	232	409
3:00			2		4			15:00			57		83		
3:15			4		4			15:15			44		66		
3:30			3		2			15:30			52		83		
3:45			0	9	4	14	23	15:45			43	196	85	317	513
4:00			5		5			16:00			29		93		
4:15			4		3			16:15			36		89		
4:30			7		6			16:30			42		94		
4:45			12	28	5	19	47	16:45			43	150	89	365	515
5:00			9		4			17:00			41		84		
5:15			9		9			17:15			52		78		
5:30			21		10			17:30			41		79		
5:45			15	54	15	38	92	17:45			38	172	89	330	502
6:00			18		31			18:00			34		73		
6:15			34		29			18:15			29		65		
6:30			52		29			18:30			38		81		
6:45			38	142	24	113	255	18:45			17	118	55	274	392
7:00			43		19			19:00			21		61		
7:15			60		29			19:15			22		57		
7:30			45		40			19:30			17		40		
7:45			46	194	34	122	316	19:45			21	81	44	202	283
8:00			45		25			20:00			22		45		
8:15			38		35			20:15			14		42		
8:30			39		40			20:30			21		23		
8:45			49	171	36	136	307	20:45			7	64	31	141	205
9:00			23		31			21:00			22		30		
9:15			51		51			21:15			11		31		
9:30			44		40			21:30			9		23		
9:45			44	162	29	151	313	21:45			13	55	12	96	151
10:00			44		42			22:00			7		23		
10:15			41		43			22:15			6		18		
10:30			36		52			22:30			20		11		
10:45			40	161	52	189	350	22:45			4	37	21	73	110
11:00			32		38			23:00			10		11		
11:15			35		64			23:15			7		8		
11:30			36		46			23:30			7		16		
11:45			43	146	38	186	332	23:45			4	28	7	42	70
Total Vol.				1096		1028	**2124**					1420		2512	**3932**

Daily Totals

NB	SB	EB	WB	Combined
		2516	3540	**6056**

	AM			PM		
Split %	51.6%	48.4%	**35.1%**	36.1%	63.9%	**64.9%**
Peak Hour	7:15	10:30	**11:45**	15:00	16:00	**16:30**
Volume	196	206	**352**	196	365	**523**
P.H.F.	0.82	0.80	**0.88**	0.86	0.97	**0.96**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT18 Indian Canyon south of Pierson. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	26		12					12:00	71		76				
0:15	12		4					12:15	66		72				
0:30	10		6					12:30	75		76				
0:45	7	55	14	36			91	12:45	78	290	60	284			574
1:00	11		3					13:00	67		66				
1:15	4		4					13:15	79		53				
1:30	7		0					13:30	65		65				
1:45	14	36	0	7			43	13:45	76	287	61	245			532
2:00	7		3					14:00	82		66				
2:15	6		4					14:15	70		63				
2:30	4		0					14:30	78		70				
2:45	5	22	4	11			33	14:45	78	308	44	243			551
3:00	4		6					15:00	113		57				
3:15	5		7					15:15	102		64				
3:30	5		5					15:30	95		70				
3:45	5	19	11	29			48	15:45	86	396	60	251			647
4:00	3		12					16:00	89		68				
4:15	5		11					16:15	127		57				
4:30	11		18					16:30	102		49				
4:45	11	30	18	59			89	16:45	117	435	58	232			667
5:00	7		15					17:00	130		60				
5:15	14		15					17:15	121		51				
5:30	9		43					17:30	120		66				
5:45	21	51	31	104			155	17:45	104	475	63	240			715
6:00	20		46					18:00	99		46				
6:15	26		77					18:15	75		47				
6:30	37		83					18:30	80		33				
6:45	28	111	80	286			397	18:45	84	338	36	162			500
7:00	42		103					19:00	69		41				
7:15	54		123					19:15	62		31				
7:30	36		123					19:30	70		28				
7:45	59	191	72	421			612	19:45	64	265	18	118			383
8:00	52		90					20:00	60		22				
8:15	60		61					20:15	76		32				
8:30	60		101					20:30	48		25				
8:45	48	220	92	344			564	20:45	41	225	23	102			327
9:00	69		65					21:00	60		25				
9:15	68		88					21:15	57		24				
9:30	49		80					21:30	42		14				
9:45	45	231	60	293			524	21:45	50	209	11	74			283
10:00	59		67					22:00	36		13				
10:15	59		67					22:15	46		20				
10:30	70		63					22:30	36		17				
10:45	58	246	52	249			495	22:45	28	146	12	62			208
11:00	50		58					23:00	31		14				
11:15	60		48					23:15	28		14				
11:30	62		66					23:30	27		5				
11:45	77	249	55	227			476	23:45	22	108	8	41			149
Total Vol.		1461		2066			**3527**			3482		2054			**5536**

Daily Totals

NB	SB	EB	WB	**Combined**
4943	4120			**9063**

	AM				**PM**			
	NB	SB	EB/WB	Combined	NB	SB	EB/WB	Combined
Split %	41.4%	58.6%		**38.9%**	62.9%	37.1%		**61.1%**
Peak Hour	11:45	6:45		**7:00**	16:45	12:00		**16:45**
Volume	289	429		**612**	488	284		**723**
P.H.F.	0.94	0.87		**0.86**	0.94	0.93		**0.95**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT19 Indian Canyon north of 14th. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	20		9					12:00	80		74				
0:15	12		5					12:15	60		67				
0:30	11		5					12:30	81		86				
0:45	10	53	14	33			86	12:45	71	292	56	283			575
1:00	8		3					13:00	65		67				
1:15	3		3					13:15	88		52				
1:30	9		0					13:30	59		62				
1:45	11	31	2	8			39	13:45	80	292	59	240			532
2:00	7		2					14:00	80		65				
2:15	6		4					14:15	78		69				
2:30	5		0					14:30	81		70				
2:45	4	22	5	11			33	14:45	76	315	45	249			564
3:00	4		6					15:00	115		57				
3:15	6		7					15:15	106		71				
3:30	5		6					15:30	93		70				
3:45	5	20	10	29			49	15:45	94	408	57	255			663
4:00	5		12					16:00	90		68				
4:15	7		11					16:15	132		54				
4:30	10		22					16:30	115		51				
4:45	10	32	19	64			96	16:45	127	464	63	236			700
5:00	7		15					17:00	134		58				
5:15	13		20					17:15	128		49				
5:30	10		43					17:30	129		72				
5:45	19	49	36	114			163	17:45	117	508	56	235			743
6:00	18		50					18:00	106		52				
6:15	24		84					18:15	74		42				
6:30	35		95					18:30	83		35				
6:45	30	107	90	319			426	18:45	83	346	36	165			511
7:00	45		109					19:00	69		41				
7:15	50		135					19:15	64		33				
7:30	33		120					19:30	72		30				
7:45	61	189	89	453			642	19:45	68	273	17	121			394
8:00	43		94					20:00	57		21				
8:15	57		73					20:15	75		32				
8:30	57		104					20:30	52		28				
8:45	46	203	87	358			561	20:45	45	229	17	98			327
9:00	66		66					21:00	60		20				
9:15	56		88					21:15	52		23				
9:30	47		80					21:30	44		17				
9:45	53	222	60	294			516	21:45	51	207	13	73			280
10:00	51		71					22:00	38		14				
10:15	62		63					22:15	44		21				
10:30	69		63					22:30	40		17				
10:45	54	236	56	253			489	22:45	29	151	9	61			212
11:00	55		57					23:00	33		14				
11:15	63		54					23:15	29		16				
11:30	59		66					23:30	28		5				
11:45	72	249	56	233			482	23:45	22	112	6	41			153
Total Vol.		1413		2169			**3582**			3597		2057			**5654**

Daily Totals

NB	SB	EB	WB	**Combined**
5010	4226			**9236**

	AM			PM		
Split %	39.4%	60.6%	**38.8%**	63.6%	36.4%	**61.2%**
Peak Hour	11:45	6:45	**7:00**	16:45	12:00	**16:45**
Volume	293	454	**642**	518	283	**760**
P.H.F.	0.90	0.84	**0.87**	0.96	0.82	**0.95**

Tuesday, April 17, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT22 Little Morongo north of Mission Lakes. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	3		0					12:00	14		13				
0:15	0		4					12:15	18		14				
0:30	0		0					12:30	15		15				
0:45	0	3	2	6			9	12:45	18	65	15	57			122
1:00	0		0					13:00	13		27				
1:15	0		0					13:15	17		23				
1:30	0		0					13:30	20		19				
1:45	0	0	0	0				13:45	13	63	14	83			146
2:00	0		0					14:00	13		19				
2:15	1		0					14:15	7		14				
2:30	0		0					14:30	20		18				
2:45	0	1	0	0			1	14:45	17	57	7	58			115
3:00	0		0					15:00	14		11				
3:15	0		2					15:15	20		15				
3:30	0		0					15:30	23		16				
3:45	0	0	0	2			2	15:45	11	68	13	55			123
4:00	0		0					16:00	19		19				
4:15	2		0					16:15	27		18				
4:30	1		2					16:30	25		17				
4:45	0	3	0	2			5	16:45	15	86	15	69			155
5:00	0		3					17:00	18		8				
5:15	3		8					17:15	11		14				
5:30	2		4					17:30	20		7				
5:45	2	7	4	19			26	17:45	17	66	9	38			104
6:00	1		9					18:00	16		13				
6:15	3		4					18:15	14		9				
6:30	3		10					18:30	16		6				
6:45	8	15	11	34			49	18:45	17	63	6	34			97
7:00	8		14					19:00	10		5				
7:15	7		25					19:15	9		6				
7:30	13		17					19:30	11		5				
7:45	14	42	18	74			116	19:45	13	43	9	25			68
8:00	16		22					20:00	7		9				
8:15	14		21					20:15	6		5				
8:30	13		27					20:30	6		3				
8:45	14	57	24	94			151	20:45	7	26	4	21			47
9:00	12		25					21:00	7		3				
9:15	11		20					21:15	9		3				
9:30	15		20					21:30	4		3				
9:45	15	53	16	81			134	21:45	8	28	0	9			37
10:00	11		17					22:00	5		0				
10:15	13		14					22:15	0		0				
10:30	19		12					22:30	2		0				
10:45	16	59	17	60			119	22:45	3	10	0	0			10
11:00	15		18					23:00	4		0				
11:15	12		26					23:15	2		2				
11:30	23		12					23:30	2		0				
11:45	6	56	15	71			127	23:45	2	10	3	5			15
Total Vol.		296		443			**739**			585		454			**1039**

Daily Totals

NB	SB	EB	WB	**Combined**
881	897			**1778**

	AM			PM		
Split %	40.1%	59.9%	**41.6%**	56.3%	43.7%	**58.4%**
Peak Hour	10:45	8:15	**8:00**	16:00	12:45	**16:00**
Volume	66	97	**151**	86	84	**155**
P.H.F.	0.72	0.90	**0.94**	0.89	0.78	**0.86**

ADT25 Little Morongo north of Two Bunch Palms Trail. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	5		3					12:00	37		40				
0:15	0		3					12:15	31		52				
0:30	0		0					12:30	27		31				
0:45	5	10	0	6			16	12:45	34	129	36	159			288
1:00	0		0					13:00	45		32				
1:15	0		2					13:15	30		53				
1:30	0		0					13:30	34		30				
1:45	0	0	2	4			4	13:45	26	135	33	148			283
2:00	5		0					14:00	40		34				
2:15	0		0					14:15	30		31				
2:30	0		0					14:30	34		57				
2:45	3	8	0	0			8	14:45	37	141	41	163			304
3:00	0		0					15:00	52		38				
3:15	0		3					15:15	49		58				
3:30	0		0					15:30	53		40				
3:45	0	0	2	5			5	15:45	57	211	44	180			391
4:00	4		5					16:00	39		45				
4:15	0		4					16:15	51		35				
4:30	0		3					16:30	61		38				
4:45	4	8	7	19			27	16:45	51	202	20	138			340
5:00	2		3					17:00	65		24				
5:15	2		7					17:15	41		31				
5:30	6		18					17:30	48		40				
5:45	16	26	28	56			82	17:45	65	219	31	126			345
6:00	15		32					18:00	51		31				
6:15	9		29					18:15	33		36				
6:30	16		45					18:30	42		24				
6:45	24	64	38	144			208	18:45	42	168	32	123			291
7:00	23		55					19:00	39		31				
7:15	43		78					19:15	28		35				
7:30	21		90					19:30	36		15				
7:45	33	120	60	283			403	19:45	16	119	17	98			217
8:00	27		54					20:00	29		17				
8:15	18		53					20:15	33		14				
8:30	36		50					20:30	16		18				
8:45	41	122	49	206			328	20:45	18	96	18	67			163
9:00	29		59					21:00	21		12				
9:15	32		49					21:15	15		11				
9:30	28		50					21:30	23		12				
9:45	34	123	32	190			313	21:45	15	74	15	50			124
10:00	18		39					22:00	21		7				
10:15	30		48					22:15	17		5				
10:30	22		31					22:30	16		3				
10:45	37	107	26	144			251	22:45	13	67	5	20			87
11:00	32		37					23:00	4		5				
11:15	16		24					23:15	4		2				
11:30	27		48					23:30	7		2				
11:45	35	110	34	143			253	23:45	3	18	0	9			27
Total Vol.		698		1200			**1898**			1579		1281			**2860**

Daily Totals

NB	SB	EB	WB	Combined
2277	2481			**4758**

	AM			PM		
Split %	36.8%	63.2%	**39.9%**	55.2%	44.8%	**60.1%**
Peak Hour	8:30	7:00	**7:15**	16:15	14:30	**15:00**
Volume	138	283	**406**	228	194	**391**
P.H.F.	0.84	0.79	**0.84**	0.88	0.84	**0.91**

Tuesday, April 17, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT28 West north of Pierson. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	2		0					12:00	27		22				
0:15	0		0					12:15	14		22				
0:30	5		0					12:30	12		25				
0:45	0	7	0	0			7	12:45	8	61	19	88			149
1:00	0		0					13:00	16		25				
1:15	0		2					13:15	15		26				
1:30	0		0					13:30	17		31				
1:45	2	2	0	2			4	13:45	18	66	29	111			177
2:00	0		0					14:00	14		19				
2:15	0		2					14:15	44		26				
2:30	2		0					14:30	34		82				
2:45	0	2	2	4			6	14:45	23	115	54	181			296
3:00	2		4					15:00	41		43				
3:15	0		0					15:15	59		43				
3:30	0		3					15:30	44		59				
3:45	0	2	4	11			13	15:45	49	193	60	205			398
4:00	3		4					16:00	28		39				
4:15	0		3					16:15	29		34				
4:30	2		5					16:30	20		33				
4:45	2	7	4	16			23	16:45	23	100	29	135			235
5:00	2		3					17:00	28		37				
5:15	0		6					17:15	28		30				
5:30	0		14					17:30	48		34				
5:45	0	2	4	27			29	17:45	37	141	52	153			294
6:00	2		14					18:00	40		38				
6:15	5		18					18:15	27		28				
6:30	14		21					18:30	35		38				
6:45	17	38	39	92			130	18:45	20	122	26	130			252
7:00	29		41					19:00	18		19				
7:15	73		87					19:15	17		13				
7:30	51		121					19:30	26		29				
7:45	46	199	99	348			547	19:45	24	85	14	75			160
8:00	32		48					20:00	19		22				
8:15	42		50					20:15	20		15				
8:30	36		58					20:30	15		12				
8:45	11	121	57	213			334	20:45	16	70	13	62			132
9:00	12		28					21:00	18		12				
9:15	8		27					21:15	11		10				
9:30	16		23					21:30	12		16				
9:45	19	55	31	109			164	21:45	16	57	7	45			102
10:00	9		28					22:00	9		7				
10:15	14		30					22:15	8		6				
10:30	19		25					22:30	4		3				
10:45	14	56	20	103			159	22:45	8	29	5	21			50
11:00	11		24					23:00	4		4				
11:15	13		16					23:15	8		5				
11:30	18		22					23:30	2		3				
11:45	15	57	22	84			141	23:45	4	18	3	15			33
Total Vol.		548		1009			**1557**			1057		1221			**2278**

Daily Totals

NB	SB	EB	WB	Combined
1605	2230			**3835**

	AM			PM		
	NB	SB	Total	NB	SB	Total
Split %	35.2%	64.8%	**40.6%**	46.4%	53.6%	**59.4%**
Peak Hour	7:15	7:15	**7:15**	15:00	14:30	**15:00**
Volume	202	355	**557**	193	222	**398**
P.H.F.	0.69	0.73	**0.81**	0.80	0.68	**0.91**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT29 West south of Pierson. | **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	3		5					12:00	44		85				
0:15	4		2					12:15	26		50				
0:30	3		7					12:30	28		36				
0:45	0	10	2	16			26	12:45	36	134	32	203			337
1:00	3		5					13:00	47		42				
1:15	2		3					13:15	54		63				
1:30	0		0					13:30	37		46				
1:45	2	7	0	8			15	13:45	28	166	37	188			354
2:00	0		0					14:00	33		25				
2:15	0		0					14:15	31		30				
2:30	2		0					14:30	33		40				
2:45	0	2	0	0			2	14:45	40	137	35	130			267
3:00	0		0					15:00	49		51				
3:15	0		3					15:15	36		105				
3:30	0		3					15:30	48		45				
3:45	0	0	2	8			8	15:45	37	170	39	240			410
4:00	0		0					16:00	45		65				
4:15	2		5					16:15	40		33				
4:30	4		8					16:30	34		32				
4:45	2	8	4	17			25	16:45	41	160	31	161			321
5:00	4		2					17:00	38		41				
5:15	4		6					17:15	46		42				
5:30	5		10					17:30	33		55				
5:45	6	19	15	33			52	17:45	44	161	49	187			348
6:00	9		10					18:00	45		51				
6:15	12		24					18:15	37		47				
6:30	9		27					18:30	32		35				
6:45	19	49	32	93			142	18:45	43	157	44	177			334
7:00	34		38					19:00	38		42				
7:15	52		54					19:15	22		38				
7:30	42		81					19:30	28		41				
7:45	33	161	46	219			380	19:45	28	116	22	143			259
8:00	30		51					20:00	26		26				
8:15	45		36					20:15	29		34				
8:30	43		57					20:30	19		20				
8:45	43	161	57	201			362	20:45	29	103	36	116			219
9:00	59		51					21:00	21		18				
9:15	77		62					21:15	15		19				
9:30	48		79					21:30	18		12				
9:45	27	211	25	217			428	21:45	13	67	10	59			126
10:00	35		32					22:00	8		12				
10:15	32		31					22:15	12		11				
10:30	23		31					22:30	8		11				
10:45	31	121	36	130			251	22:45	7	35	14	48			83
11:00	23		34					23:00	10		5				
11:15	28		33					23:15	6		8				
11:30	37		26					23:30	4		9				
11:45	43	131	35	128			259	23:45	3	23	0	22			45
Total Vol.		880		1070			**1950**			1429		1674			**3103**

Daily Totals

NB	SB	EB	WB	Combined
2309	2744			**5053**

	AM			PM		
Split %	45.1%	54.9%	**38.6%**	46.1%	53.9%	**61.4%**
Peak Hour	8:45	8:45	**8:45**	12:45	15:15	**15:15**
Volume	227	249	**476**	174	254	**420**
P.H.F.	0.74	0.79	**0.86**	0.88	0.60	**0.74**

Tuesday, April 17, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT30 Palm north of Mission Lakes. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	0		0					12:00	2		2				
0:15	0		0					12:15	2		2				
0:30	0		0					12:30	0		0				
0:45	0	0	0	0				12:45	3	7	2	6			13
1:00	0		0					13:00	2		3				
1:15	0		0					13:15	4		0				
1:30	0		0					13:30	0		2				
1:45	1	1	1	1			2	13:45	4	10	5	10			20
2:00	1		1					14:00	3		2				
2:15	0		0					14:15	0		0				
2:30	0		0					14:30	2		2				
2:45	1	2	1	2			4	14:45	2	7	3	7			14
3:00	0		0					15:00	3		2				
3:15	0		0					15:15	0		2				
3:30	0		0					15:30	4		0				
3:45	0	0	0	0				15:45	4	11	2	6			17
4:00	0		0					16:00	2		5				
4:15	0		0					16:15	5		4				
4:30	0		0					16:30	6		0				
4:45	0	0	0	0				16:45	0	13	0	9			22
5:00	0		1					17:00	3		0				
5:15	1		1					17:15	3		5				
5:30	0		1					17:30	4		0				
5:45	0	1	1	4			5	17:45	2	12	0	5			17
6:00	1		2					18:00	7		0				
6:15	0		2					18:15	5		2				
6:30	3		5					18:30	3		0				
6:45	1	5	1	10			15	18:45	4	19	4	6			25
7:00	1		2					19:00	6		3				
7:15	5		8					19:15	0		0				
7:30	3		3					19:30	2		0				
7:45	0	9	0	13			22	19:45	0	8	2	5			13
8:00	2		1					20:00	4		3				
8:15	1		2					20:15	3		2				
8:30	2		0					20:30	3		3				
8:45	1	6	1	4			10	20:45	0	10	2	10			20
9:00	1		3					21:00	3		2				
9:15	1		0					21:15	0		2				
9:30	0		0					21:30	3		0				
9:45	2	4	0	3			7	21:45	0	6	3	7			13
10:00	0		2					22:00	0		0				
10:15	3		2					22:15	0		0				
10:30	2		0					22:30	0		0				
10:45	3	8	3	7			15	22:45	0	0	0	0			
11:00	2		3					23:00	0		0				
11:15	2		0					23:15	2		0				
11:30	2		0					23:30	0		0				
11:45	5	11	2	5			16	23:45	0	2	0	0			2
Total Vol.		47		49			**96**			105		71			**176**

Daily Totals

NB	SB	EB	WB	Combined
152	120			**272**

	AM			PM		
Split %	49.0%	51.0%	**35.3%**	59.7%	40.3%	**64.7%**
Peak Hour	11:00	6:30	**6:30**	18:00	15:30	**15:45**
Volume	11	16	**26**	19	11	**28**
P.H.F.	0.55	0.50	**0.50**	0.64	0.55	**0.78**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT32 Palm south of Desert View. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	37		13					12:00	193		189				
0:15	33		16					12:15	161		198				
0:30	29		18					12:30	140		140				
0:45	22	121	18	65			186	12:45	181	675	162	689			1364
1:00	20		15					13:00	171		167				
1:15	20		10					13:15	184		209				
1:30	14		11					13:30	171		168				
1:45	13	67	12	48			115	13:45	178	704	161	705			1409
2:00	7		15					14:00	154		158				
2:15	10		6					14:15	170		151				
2:30	6		0					14:30	192		148				
2:45	14	37	8	29			66	14:45	216	732	139	596			1328
3:00	9		3					15:00	220		167				
3:15	6		13					15:15	220		193				
3:30	13		19					15:30	199		173				
3:45	10	38	15	50			88	15:45	251	890	170	703			1593
4:00	12		24					16:00	177		165				
4:15	8		22					16:15	203		173				
4:30	8		37					16:30	235		165				
4:45	19	47	21	104			151	16:45	258	873	149	652			1525
5:00	17		30					17:00	203		178				
5:15	17		49					17:15	233		159				
5:30	20		62					17:30	212		168				
5:45	22	76	74	215			291	17:45	221	869	158	663			1532
6:00	33		107					18:00	222		166				
6:15	35		130					18:15	179		123				
6:30	49		129					18:30	185		148				
6:45	81	198	154	520			718	18:45	199	785	147	584			1369
7:00	75		156					19:00	182		130				
7:15	136		185					19:15	189		153				
7:30	128		145					19:30	159		144				
7:45	145	484	160	646			1130	19:45	168	698	136	563			1261
8:00	126		153					20:00	158		151				
8:15	145		171					20:15	136		123				
8:30	135		156					20:30	148		128				
8:45	167	573	169	649			1222	20:45	141	583	122	524			1107
9:00	158		149					21:00	142		90				
9:15	160		180					21:15	128		75				
9:30	132		209					21:30	113		75				
9:45	137	587	144	682			1269	21:45	105	488	63	303			791
10:00	137		157					22:00	114		64				
10:15	130		160					22:15	91		56				
10:30	151		143					22:30	79		55				
10:45	141	559	156	616			1175	22:45	82	366	44	219			585
11:00	158		138					23:00	42		28				
11:15	167		149					23:15	54		32				
11:30	125		161					23:30	42		37				
11:45	152	602	150	598			1200	23:45	40	178	29	126			304
Total Vol.		3389		4222			**7611**			7841		6327			**14168**

Daily Totals

NB	SB	EB	WB	Combined
11230	10549			**21779**

	AM			PM		
	NB	SB	Combined	NB	SB	Combined
Split %	44.5%	55.5%	**34.9%**	55.3%	44.7%	**65.1%**
Peak Hour	11:45	8:45	**11:30**	16:30	12:45	**15:00**
Volume	646	707	**1329**	929	706	**1593**
P.H.F.	0.84	0.85	**0.87**	0.87	0.84	**0.95**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT36 Palm north of Varner. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	64		16					12:00	216		238				
0:15	54		30					12:15	198		251				
0:30	46		22					12:30	208		270				
0:45	36	200	16	84			284	12:45	257	879	215	974			1853
1:00	31		8					13:00	210		206				
1:15	21		10					13:15	262		288				
1:30	15		10					13:30	227		262				
1:45	25	92	10	38			130	13:45	247	946	240	996			1942
2:00	23		10					14:00	264		233				
2:15	16		5					14:15	288		249				
2:30	11		14					14:30	303		230				
2:45	22	72	14	43			115	14:45	335	1190	238	950			2140
3:00	11		12					15:00	322		257				
3:15	10		22					15:15	344		239				
3:30	14		37					15:30	420		260				
3:45	20	55	48	119			174	15:45	379	1465	227	983			2448
4:00	13		45					16:00	358		226				
4:15	11		78					16:15	374		275				
4:30	13		103					16:30	367		233				
4:45	31	68	79	305			373	16:45	380	1479	226	960			2439
5:00	32		106					17:00	393		250				
5:15	18		132					17:15	445		238				
5:30	32		203					17:30	447		250				
5:45	46	128	210	651			779	17:45	389	1674	204	942			2616
6:00	56		243					18:00	306		208				
6:15	80		350					18:15	296		208				
6:30	99		441					18:30	277		200				
6:45	122	357	419	1453			1810	18:45	248	1127	170	786			1913
7:00	132		404					19:00	291		150				
7:15	155		511					19:15	261		153				
7:30	161		513					19:30	210		146				
7:45	195	643	426	1854			2497	19:45	206	968	130	579			1547
8:00	145		376					20:00	197		131				
8:15	174		360					20:15	239		113				
8:30	190		391					20:30	232		102				
8:45	169	678	356	1483			2161	20:45	200	868	114	460			1328
9:00	152		268					21:00	222		103				
9:15	160		276					21:15	196		94				
9:30	141		294					21:30	185		91				
9:45	130	583	221	1059			1642	21:45	188	791	66	354			1145
10:00	167		224					22:00	183		80				
10:15	193		241					22:15	194		61				
10:30	161		258					22:30	149		64				
10:45	166	687	237	960			1647	22:45	129	655	54	259			914
11:00	220		191					23:00	108		28				
11:15	201		219					23:15	92		28				
11:30	202		230					23:30	85		44				
11:45	192	815	219	859			1674	23:45	69	354	37	137			491
Total Vol.		4378		8908			**13286**			12396		8380			**20776**

Daily Totals

NB	SB	EB	WB	Combined
16774	17288			**34062**

	AM			PM		
	NB	SB	Total	NB	SB	Total
Split %	33.0%	67.0%	**39.0%**	59.7%	40.3%	**61.0%**
Peak Hour	11:00	7:00	**7:00**	17:00	13:15	**16:45**
Volume	815	1854	**2497**	1674	1023	**2629**
P.H.F.	0.93	0.90	**0.93**	0.97	0.89	**0.94**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT38 Bubbling Wells north of Dillon. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	2		0					12:00	20		20				
0:15	6		3					12:15	28		22				
0:30	2		0					12:30	35		14				
0:45	2	12	2	5			17	12:45	37	120	11	67			187
1:00	2		2					13:00	40		43				
1:15	3		0					13:15	27		39				
1:30	0		0					13:30	27		26				
1:45	0	5	0	2			7	13:45	27	121	27	135			256
2:00	0		0					14:00	18		22				
2:15	2		2					14:15	30		12				
2:30	5		0					14:30	22		33				
2:45	0	7	0	2			9	14:45	29	99	35	102			201
3:00	0		0					15:00	24		17				
3:15	0		2					15:15	28		17				
3:30	0		0					15:30	37		16				
3:45	0	0	0	2			2	15:45	30	119	21	71			190
4:00	2		2					16:00	32		23				
4:15	2		6					16:15	40		25				
4:30	0		5					16:30	30		27				
4:45	0	4	9	22			26	16:45	34	136	21	96			232
5:00	0		6					17:00	39		21				
5:15	0		8					17:15	37		15				
5:30	0		10					17:30	45		16				
5:45	3	3	12	36			39	17:45	26	147	20	72			219
6:00	8		19					18:00	27		23				
6:15	6		22					18:15	19		15				
6:30	11		36					18:30	26		12				
6:45	11	36	25	102			138	18:45	32	104	23	73			177
7:00	13		38					19:00	18		23				
7:15	20		37					19:15	27		17				
7:30	20		33					19:30	27		21				
7:45	29	82	31	139			221	19:45	21	93	14	75			168
8:00	28		29					20:00	16		10				
8:15	46		33					20:15	28		7				
8:30	45		58					20:30	16		15				
8:45	19	138	40	160			298	20:45	18	78	9	41			119
9:00	9		22					21:00	15		9				
9:15	19		16					21:15	20		3				
9:30	16		21					21:30	14		8				
9:45	15	59	22	81			140	21:45	16	65	4	24			89
10:00	12		18					22:00	11		6				
10:15	15		23					22:15	23		6				
10:30	10		16					22:30	9		6				
10:45	15	52	19	76			128	22:45	11	54	4	22			76
11:00	17		15					23:00	11		5				
11:15	20		19					23:15	8		4				
11:30	18		20					23:30	10		3				
11:45	20	75	28	82			157	23:45	10	39	2	14			53
Total Vol.		473		709			**1182**			1175		792			**1967**

Daily Totals

NB	SB	EB	WB	Combined
1648	1501			**3149**

	AM			PM		
	NB	SB	Combined	NB	SB	Combined
Split %	40.0%	60.0%	**37.5%**	59.7%	40.3%	**62.5%**
Peak Hour	7:45	8:00	**7:45**	16:45	13:00	**13:00**
Volume	148	160	**299**	155	135	**256**
P.H.F.	0.80	0.69	**0.73**	0.94	0.78	**0.77**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT39 Bubbling Wells south of Dillon. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	1		2					12:00	6		8				
0:15	2		0					12:15	9		11				
0:30	2		1					12:30	18		11				
0:45	0	5	0	3			8	12:45	14	47	12	42			89
1:00	2		0					13:00	4		13				
1:15	0		1					13:15	6		14				
1:30	0		0					13:30	15		8				
1:45	0	2	2	3			5	13:45	14	39	10	45			84
2:00	0		0					14:00	15		11				
2:15	0		2					14:15	14		9				
2:30	0		1					14:30	21		8				
2:45	0	0	0	3			3	14:45	11	61	14	42			103
3:00	0		0					15:00	8		10				
3:15	0		0					15:15	22		8				
3:30	0		1					15:30	17		13				
3:45	0	0	0	1			1	15:45	13	60	10	41			101
4:00	1		3					16:00	15		13				
4:15	0		1					16:15	22		8				
4:30	0		1					16:30	10		15				
4:45	0	1	1	6			7	16:45	20	67	9	45			112
5:00	2		3					17:00	17		13				
5:15	2		2					17:15	19		8				
5:30	1		2					17:30	21		15				
5:45	3	8	3	10			18	17:45	21	78	7	43			121
6:00	4		5					18:00	12		12				
6:15	5		14					18:15	13		17				
6:30	5		16					18:30	16		11				
6:45	4	18	7	42			60	18:45	13	54	13	53			107
7:00	11		18					19:00	9		14				
7:15	11		22					19:15	11		6				
7:30	6		20					19:30	15		16				
7:45	9	37	16	76			113	19:45	8	43	8	44			87
8:00	13		12					20:00	12		3				
8:15	18		13					20:15	5		7				
8:30	14		16					20:30	8		0				
8:45	7	52	20	61			113	20:45	13	38	10	20			58
9:00	5		12					21:00	8		4				
9:15	6		10					21:15	8		12				
9:30	3		9					21:30	6		2				
9:45	7	21	12	43			64	21:45	6	28	2	20			48
10:00	8		4					22:00	2		0				
10:15	7		7					22:15	2		0				
10:30	7		8					22:30	4		0				
10:45	5	27	5	24			51	22:45	2	10	0	0			10
11:00	7		10					23:00	2		5				
11:15	5		15					23:15	5		0				
11:30	5		7					23:30	3		2				
11:45	7	24	3	35			59	23:45	3	13	3	10			23
Total Vol.		195		307			**502**			538		405			**943**

Daily Totals

NB	SB	EB	WB	**Combined**
733	712			**1445**

	AM			PM		
Split %	38.8%	61.2%	**34.7%**	57.1%	42.9%	**65.3%**
Peak Hour	7:45	7:00	**7:00**	17:00	18:15	**16:45**
Volume	54	76	**113**	78	55	**122**
P.H.F.	0.75	0.86	**0.86**	0.93	0.81	**0.85**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT43 Long Canyon north of Dillon. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:00	0		5					12:00	27		26				
0:15	4		2					12:15	24		14				
0:30	2		0					12:30	18		23				
0:45	2	8	2	9			17	12:45	30	99	35	98			197
1:00	0		2					13:00	41		30				
1:15	2		2					13:15	40		19				
1:30	0		0					13:30	26		18				
1:45	0	2	0	4			6	13:45	20	127	19	86			213
2:00	0		0					14:00	18		27				
2:15	0		2					14:15	28		27				
2:30	0		0					14:30	16		17				
2:45	0	0	0	2			2	14:45	19	81	20	91			172
3:00	0		2					15:00	29		25				
3:15	0		0					15:15	32		20				
3:30	0		0					15:30	26		32				
3:45	0	0	0	2			2	15:45	38	125	24	101			226
4:00	2		0					16:00	31		24				
4:15	0		3					16:15	31		34				
4:30	5		5					16:30	26		33				
4:45	3	10	0	8			18	16:45	27	115	26	117			232
5:00	0		2					17:00	28		27				
5:15	2		5					17:15	22		29				
5:30	4		9					17:30	31		27				
5:45	12	18	4	20			38	17:45	35	116	28	111			227
6:00	17		7					18:00	25		23				
6:15	16		10					18:15	26		20				
6:30	19		19					18:30	18		21				
6:45	16	68	16	52			120	18:45	22	91	17	81			172
7:00	25		21					19:00	19		15				
7:15	19		29					19:15	17		16				
7:30	26		21					19:30	22		15				
7:45	24	94	19	90			184	19:45	14	72	17	63			135
8:00	23		28					20:00	12		13				
8:15	22		43					20:15	24		16				
8:30	30		34					20:30	15		16				
8:45	19	94	26	131			225	20:45	14	65	14	59			124
9:00	29		32					21:00	15		11				
9:15	20		28					21:15	12		11				
9:30	28		17					21:30	8		10				
9:45	20	97	19	96			193	21:45	12	47	10	42			89
10:00	16		22					22:00	10		12				
10:15	26		14					22:15	7		9				
10:30	16		23					22:30	11		5				
10:45	22	80	32	91			171	22:45	8	36	9	35			71
11:00	19		26					23:00	10		6				
11:15	20		18					23:15	3		4				
11:30	27		33					23:30	7		5				
11:45	18	84	32	109			193	23:45	2	22	3	18			40
Total Vol.		555		614			**1169**			996		902			**1898**

Daily Totals

NB	SB	EB	WB	Combined
1551	1516			**3067**

	AM			PM		
Split %	47.5%	52.5%	**38.1%**	52.5%	47.5%	**61.9%**
Peak Hour	8:15	8:15	**8:15**	12:45	16:15	**15:45**
Volume	100	135	**235**	137	120	**241**
P.H.F.	0.83	0.78	**0.90**	0.92	0.88	**0.93**

Tuesday, April 17, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT49 Mission Lakes west of Palm. — **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			2		2			12:00			22		23		
0:15			0		0			12:15			18		15		
0:30			2		2			12:30			23		27		
0:45			4	8	2	6	14	12:45			24	87	28	93	180
1:00			0		0			13:00			16		32		
1:15			3		0			13:15			21		24		
1:30			0		0			13:30			21		28		
1:45			0	3	0	0	3	13:45			14	72	26	110	182
2:00			0		2			14:00			25		37		
2:15			0		0			14:15			25		47		
2:30			0		0			14:30			53		51		
2:45			0	0	4	6	6	14:45			42	145	42	177	322
3:00			0		2			15:00			29		45		
3:15			0		0			15:15			38		49		
3:30			0		2			15:30			53		59		
3:45			3	3	0	4	7	15:45			64	184	40	193	377
4:00			0		0			16:00			33		30		
4:15			0		2			16:15			33		33		
4:30			2		3			16:30			23		27		
4:45			4	6	0	5	11	16:45			22	111	33	123	234
5:00			4		6			17:00			38		28		
5:15			4		7			17:15			30		39		
5:30			5		4			17:30			28		39		
5:45			4	17	7	24	41	17:45			26	122	39	145	267
6:00			8		9			18:00			28		28		
6:15			6		17			18:15			22		26		
6:30			13		18			18:30			15		29		
6:45			14	41	27	71	112	18:45			17	82	17	100	182
7:00			17		42			19:00			19		31		
7:15			44		85			19:15			20		27		
7:30			63		70			19:30			17		18		
7:45			28	152	38	235	387	19:45			17	73	15	91	164
8:00			31		35			20:00			14		24		
8:15			29		45			20:15			17		18		
8:30			50		55			20:30			9		16		
8:45			38	148	34	169	317	20:45			7	47	18	76	123
9:00			17		24			21:00			9		11		
9:15			20		17			21:15			8		10		
9:30			23		22			21:30			15		13		
9:45			21	81	29	92	173	21:45			5	37	13	47	84
10:00			24		22			22:00			5		11		
10:15			20		24			22:15			5		9		
10:30			16		23			22:30			7		8		
10:45			29	89	26	95	184	22:45			2	19	8	36	55
11:00			18		25			23:00			9		4		
11:15			22		26			23:15			3		3		
11:30			27		17			23:30			3		4		
11:45			27	94	22	90	184	23:45			4	19	2	13	32
Total Vol.				642		797	**1439**					998		1204	**2202**

Daily Totals

NB	SB	EB	WB	Combined
		1640	2001	**3641**

			AM					PM		
Split %			44.6%	55.4%	**39.5%**			45.3%	54.7%	**60.5%**
Peak Hour	0:30	0:30	7:15	7:00	**7:15**			15:15	14:45	**15:00**
Volume			166	235	**394**			188	195	**377**
P.H.F.			0.66	0.69	**0.74**			0.73	0.83	**0.84**

Tuesday, April 17, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT50 Pierson east of SR 62 **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			9		0			12:00			15		13		
0:15			3		5			12:15			17		9		
0:30			2		0			12:30			9		15		
0:45			7	21	0	5	26	12:45			21	62	12	49	111
1:00			2		0			13:00			10		22		
1:15			0		0			13:15			30		21		
1:30			2		0			13:30			16		9		
1:45			0	4	0	0	4	13:45			17	73	10	62	135
2:00			2		0			14:00			22		11		
2:15			2		2			14:15			17		20		
2:30			0		2			14:30			14		13		
2:45			0	4	4	8	12	14:45			20	73	14	58	131
3:00			3		0			15:00			27		19		
3:15			0		5			15:15			22		19		
3:30			0		3			15:30			11		20		
3:45			2	5	7	15	20	15:45			24	84	15	73	157
4:00			0		8			16:00			20		19		
4:15			0		5			16:15			23		26		
4:30			0		5			16:30			26		21		
4:45			2	2	8	26	28	16:45			28	97	12	78	175
5:00			4		14			17:00			21		26		
5:15			2		15			17:15			23		20		
5:30			2		19			17:30			25		27		
5:45			8	16	13	61	77	17:45			26	95	10	83	178
6:00			10		24			18:00			22		13		
6:15			5		16			18:15			18		11		
6:30			15		21			18:30			13		10		
6:45			19	49	22	83	132	18:45			15	68	11	45	113
7:00			20		28			19:00			26		8		
7:15			20		17			19:15			17		16		
7:30			26		18			19:30			11		11		
7:45			15	81	18	81	162	19:45			12	66	8	43	109
8:00			20		12			20:00			22		11		
8:15			15		17			20:15			11		7		
8:30			14		16			20:30			9		11		
8:45			25	74	15	60	134	20:45			9	51	9	38	89
9:00			18		18			21:00			12		6		
9:15			15		13			21:15			11		6		
9:30			17		16			21:30			6		2		
9:45			18	68	18	65	133	21:45			6	35	3	17	52
10:00			12		15			22:00			11		6		
10:15			13		11			22:15			8		6		
10:30			20		9			22:30			12		0		
10:45			14	59	16	51	110	22:45			3	34	6	18	52
11:00			18		9			23:00			5		4		
11:15			11		15			23:15			7		0		
11:30			16		15			23:30			2		2		
11:45			18	63	16	55	118	23:45			6	20	2	8	28
Total Vol.				446		510	**956**					758		572	**1330**

Daily Totals

NB	SB	EB	WB	**Combined**
		1204	1082	**2286**

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
			AM						**PM**		
Split %			46.7%	53.3%	**41.8%**				57.0%	43.0%	**58.2%**
Peak Hour	0:30	0:30	6:45	6:30	**6:45**				16:15	16:15	**16:15**
Volume			85	88	**170**				98	85	**183**
P.H.F.			0.82	0.79	**0.89**				0.88	0.82	**0.93**

Tuesday, April 17, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT52 Pierson west of Indian Canyon. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			10		0			12:00			12		17		
0:15			3		5			12:15			21		11		
0:30			2		0			12:30			11		19		
0:45			5	20	0	5	25	12:45			21	65	14	61	126
1:00			3		0			13:00			11		24		
1:15			0		0			13:15			25		22		
1:30			0		0			13:30			17		13		
1:45			0	3	0	0	3	13:45			16	69	9	68	137
2:00			2		0			14:00			19		16		
2:15			2		3			14:15			17		13		
2:30			0		0			14:30			14		13		
2:45			0	4	3	6	10	14:45			24	74	17	59	133
3:00			0		2			15:00			29		16		
3:15			0		4			15:15			20		19		
3:30			0		3			15:30			16		25		
3:45			3	3	7	16	19	15:45			23	88	14	74	162
4:00			0		7			16:00			24		25		
4:15			0		5			16:15			26		22		
4:30			0		6			16:30			26		23		
4:45			2	2	8	26	28	16:45			32	108	13	83	191
5:00			4		14			17:00			21		24		
5:15			0		15			17:15			24		21		
5:30			3		18			17:30			26		28		
5:45			7	14	16	63	77	17:45			27	98	14	87	185
6:00			9		25			18:00			25		18		
6:15			4		14			18:15			22		13		
6:30			15		22			18:30			15		11		
6:45			16	44	23	84	128	18:45			18	80	12	54	134
7:00			26		25			19:00			23		11		
7:15			21		17			19:15			21		14		
7:30			25		22			19:30			9		14		
7:45			18	90	20	84	174	19:45			14	67	8	47	114
8:00			18		14			20:00			18		10		
8:15			15		17			20:15			18		8		
8:30			15		17			20:30			9		14		
8:45			23	71	14	62	133	20:45			8	53	8	40	93
9:00			17		17			21:00			13		6		
9:15			18		15			21:15			9		5		
9:30			17		19			21:30			7		3		
9:45			18	70	16	67	137	21:45			8	37	3	17	54
10:00			13		13			22:00			9		6		
10:15			15		16			22:15			8		7		
10:30			18		9			22:30			14		0		
10:45			22	68	15	53	121	22:45			3	34	6	19	53
11:00			18		11			23:00			5		4		
11:15			12		16			23:15			7		0		
11:30			15		16			23:30			2		2		
11:45			17	62	15	58	120	23:45			5	19	2	8	27
Total Vol.				451		524	**975**					792		617	**1409**

Daily Totals

NB	SB	EB	WB	**Combined**
		1243	1141	**2384**

	AM						PM				
	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
Split %			46.3%	53.7%	**40.9%**				56.2%	43.8%	**59.1%**
Peak Hour	0:30	0:30	7:00	6:30	**6:45**				16:00	17:00	**16:00**
Volume			90	87	**175**				108	87	**191**
P.H.F.			0.87	0.87	**0.86**				0.84	0.78	**0.97**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT55 Pierson east of Little Morongo. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			10		9			12:00			84		61		
0:15			7		5			12:15			61		47		
0:30			5		8			12:30			54		55		
0:45			4	26	4	26	52	12:45			67	266	69	232	498
1:00			17		2			13:00			64		60		
1:15			3		4			13:15			61		54		
1:30			4		3			13:30			64		48		
1:45			7	31	4	13	44	13:45			52	241	62	224	465
2:00			5		2			14:00			57		52		
2:15			3		2			14:15			54		49		
2:30			0		4			14:30			59		61		
2:45			0	8	4	12	20	14:45			46	216	84	246	462
3:00			4		0			15:00			106		110		
3:15			4		2			15:15			123		94		
3:30			4		6			15:30			96		78		
3:45			2	14	4	12	26	15:45			69	394	67	349	743
4:00			2		10			16:00			73		71		
4:15			2		7			16:15			73		58		
4:30			10		10			16:30			76		79		
4:45			6	20	11	38	58	16:45			78	300	71	279	579
5:00			4		9			17:00			81		80		
5:15			7		17			17:15			75		78		
5:30			7		21			17:30			83		77		
5:45			15	33	28	75	108	17:45			80	319	74	309	628
6:00			19		25			18:00			81		93		
6:15			17		43			18:15			73		68		
6:30			36		40			18:30			68		63		
6:45			31	103	41	149	252	18:45			73	295	57	281	576
7:00			42		61			19:00			75		62		
7:15			53		67			19:15			65		44		
7:30			60		68			19:30			47		41		
7:45			64	219	58	254	473	19:45			38	225	31	178	403
8:00			67		42			20:00			29		46		
8:15			77		62			20:15			59		47		
8:30			86		79			20:30			43		54		
8:45			92	322	89	272	594	20:45			87	218	33	180	398
9:00			82		118			21:00			33		24		
9:15			93		171			21:15			39		30		
9:30			112		123			21:30			27		20		
9:45			78	365	67	479	844	21:45			20	119	17	91	210
10:00			47		42			22:00			22		22		
10:15			49		40			22:15			28		19		
10:30			63		64			22:30			18		11		
10:45			59	218	39	185	403	22:45			17	85	16	68	153
11:00			46		53			23:00			16		6		
11:15			48		43			23:15			18		10		
11:30			57		43			23:30			21		4		
11:45			49	200	52	191	391	23:45			13	68	14	34	102
Total Vol.				1559		1706	**3265**					2746		2471	**5217**

Daily Totals

NB	SB	EB	WB	Combined
		4305	4177	**8482**

	NB	SB	EB	WB	**AM**		NB	SB	EB	WB	**PM**
Split %			47.7%	52.3%	**38.5%**				52.6%	47.4%	**61.5%**
Peak Hour	0:30	0:30	8:45	8:45	**8:45**				15:00	14:45	**15:00**
Volume			379	501	**880**				394	366	**743**
P.H.F.			0.85	0.73	**0.83**				0.80	0.83	**0.86**

Wednesday, April 18, 2018 | Location: Desert Hot Springs | PROJECT: SC1686

ADT60 13th west of Little Morongo. | **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			0		0			12:00			2		0		
0:15			0		0			12:15			0		0		
0:30			0		0			12:30			0		0		
0:45			0	0	0	0		12:45			0	2	0	0	2
1:00			0		0			13:00			0		0		
1:15			0		0			13:15			0		0		
1:30			0		0			13:30			0		0		
1:45			0	0	0	0		13:45			0	0	0	0	
2:00			0		0			14:00			0		0		
2:15			0		0			14:15			0		0		
2:30			0		0			14:30			0		0		
2:45			0	0	0	0		14:45			0	0	0	0	
3:00			0		0			15:00			2		0		
3:15			0		0			15:15			0		3		
3:30			0		0			15:30			0		0		
3:45			0	0	0	0		15:45			0	2	0	3	5
4:00			0		0			16:00			0		0		
4:15			0		0			16:15			0		0		
4:30			0		0			16:30			0		0		
4:45			0	0	0	0		16:45			0	0	0	0	
5:00			0		0			17:00			2		0		
5:15			0		0			17:15			0		0		
5:30			0		0			17:30			0		0		
5:45			0	0	0	0		17:45			3	5	0	0	5
6:00			0		0			18:00			0		0		
6:15			0		0			18:15			0		2		
6:30			0		0			18:30			0		0		
6:45			0	0	0	0		18:45			0	0	0	2	2
7:00			2		0			19:00			0		0		
7:15			0		0			19:15			0		0		
7:30			2		2			19:30			2		0		
7:45			0	4	0	2	6	19:45			0	2	0	0	2
8:00			0		0			20:00			0		2		
8:15			0		0			20:15			0		0		
8:30			0		0			20:30			0		0		
8:45			2	2	0	0	2	20:45			0	0	0	2	2
9:00			0		0			21:00			0		0		
9:15			2		0			21:15			0		0		
9:30			0		0			21:30			0		0		
9:45			0	2	0	0	2	21:45			0	0	0	0	
10:00			0		0			22:00			0		0		
10:15			0		0			22:15			0		0		
10:30			0		0			22:30			0		0		
10:45			0	0	0	0		22:45			0	0	0	0	
11:00			0		2			23:00			0		0		
11:15			2		0			23:15			0		0		
11:30			0		0			23:30			0		0		
11:45			0	2	0	2	4	23:45			0	0	0	0	
Total Vol.				10		4	**14**					11		7	**18**

Daily Totals

NB	SB	EB	WB	**Combined**
		21	11	**32**

			AM				**PM**		
	NB	SB	EB	WB	Combined	NB	SB	EB	WB	Combined
Split %			71.4%	28.6%	**43.8%**			61.1%	38.9%	**56.3%**
Peak Hour	0:30	0:30	6:45	6:45	**6:45**			17:00	14:30	**14:30**
Volume			4	2	**6**			5	3	**5**
P.H.F.			0.50	0.25	**0.38**			0.42	0.25	**0.42**

Wednesday, April 18, 2018 | Location: Desert Hot Springs | PROJECT: SC1686

ADT73 Dillon west of Worsley. | **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			6		6			12:00			18		18		
0:15			3		0			12:15			23		19		
0:30			6		0			12:30			24		20		
0:45			7	22	0	6	28	12:45			27	92	14	71	163
1:00			0		0			13:00			14		25		
1:15			8		3			13:15			26		28		
1:30			3		0			13:30			25		26		
1:45			2	13	0	3	16	13:45			26	91	25	104	195
2:00			0		2			14:00			20		26		
2:15			0		0			14:15			22		26		
2:30			3		0			14:30			27		28		
2:45			4	7	0	2	9	14:45			28	97	33	113	210
3:00			2		3			15:00			30		27		
3:15			0		8			15:15			17		30		
3:30			2		4			15:30			23		35		
3:45			0	4	0	15	19	15:45			37	107	47	139	246
4:00			0		3			16:00			28		22		
4:15			4		6			16:15			22		29		
4:30			5		8			16:30			27		26		
4:45			7	16	6	23	39	16:45			14	91	32	109	200
5:00			6		10			17:00			25		27		
5:15			22		6			17:15			28		27		
5:30			31		16			17:30			14		20		
5:45			35	94	14	46	140	17:45			21	88	21	95	183
6:00			30		13			18:00			19		20		
6:15			40		21			18:15			23		17		
6:30			23		19			18:30			23		12		
6:45			26	119	8	61	180	18:45			16	81	16	65	146
7:00			24		8			19:00			11		10		
7:15			14		15			19:15			15		5		
7:30			22		27			19:30			17		9		
7:45			17	77	37	87	164	19:45			12	55	3	27	82
8:00			19		16			20:00			16		7		
8:15			16		18			20:15			13		5		
8:30			24		23			20:30			15		5		
8:45			23	82	22	79	161	20:45			15	59	5	22	81
9:00			9		14			21:00			10		6		
9:15			18		20			21:15			8		0		
9:30			17		16			21:30			9		5		
9:45			13	57	16	66	123	21:45			10	37	5	16	53
10:00			21		30			22:00			11		7		
10:15			14		24			22:15			11		4		
10:30			12		25			22:30			11		5		
10:45			25	72	21	100	172	22:45			10	43	4	20	63
11:00			5		16			23:00			9		4		
11:15			13		16			23:15			6		0		
11:30			20		15			23:30			7		2		
11:45			15	53	21	68	121	23:45			6	28	4	10	38
Total Vol.				616		556	**1172**					869		791	**1660**

Daily Totals

NB	SB	EB	WB	Combined
		1485	1347	**2832**

	AM					PM				
	NB	SB	EB	WB		NB	SB	EB	WB	
Split %			52.6%	47.4%	**41.4%**			52.3%	47.7%	**58.6%**
Peak Hour	0:30	0:30	5:30	10:00	**5:30**			15:45	15:00	**15:00**
Volume			136	100	**200**			114	139	**246**
P.H.F.			0.85	0.83	**0.82**			0.77	0.74	**0.73**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT74 Dillon west of Diablo. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			7		6			12:00			18		15		
0:15			3		0			12:15			21		15		
0:30			8		0			12:30			22		21		
0:45			6	24	0	6	30	12:45			27	88	15	66	154
1:00			0		0			13:00			14		23		
1:15			5		3			13:15			24		25		
1:30			5		0			13:30			24		22		
1:45			2	12	0	3	15	13:45			28	90	22	92	182
2:00			0		0			14:00			18		24		
2:15			0		0			14:15			21		29		
2:30			3		2			14:30			27		18		
2:45			6	9	0	2	11	14:45			24	90	32	103	193
3:00			2		4			15:00			27		17		
3:15			0		7			15:15			17		29		
3:30			0		4			15:30			23		27		
3:45			0	2	0	15	17	15:45			36	103	36	109	212
4:00			0		4			16:00			28		24		
4:15			3		6			16:15			22		24		
4:30			4		7			16:30			27		20		
4:45			5	12	7	24	36	16:45			16	93	29	97	190
5:00			4		11			17:00			25		18		
5:15			15		6			17:15			25		26		
5:30			25		14			17:30			15		14		
5:45			30	74	15	46	120	17:45			18	83	18	76	159
6:00			23		14			18:00			23		16		
6:15			23		22			18:15			23		15		
6:30			26		17			18:30			21		11		
6:45			25	97	10	63	160	18:45			15	82	18	60	142
7:00			18		9			19:00			10		7		
7:15			15		15			19:15			17		6		
7:30			22		29			19:30			20		11		
7:45			16	71	46	99	170	19:45			13	60	3	27	87
8:00			21		22			20:00			15		7		
8:15			13		17			20:15			13		7		
8:30			23		25			20:30			12		6		
8:45			16	73	22	86	159	20:45			16	56	6	26	82
9:00			8		15			21:00			11		5		
9:15			15		22			21:15			9		0		
9:30			17		11			21:30			8		5		
9:45			12	52	14	62	114	21:45			9	37	4	14	51
10:00			19		22			22:00			10		7		
10:15			18		24			22:15			12		2		
10:30			13		25			22:30			12		2		
10:45			22	72	18	89	161	22:45			9	43	2	13	56
11:00			6		16			23:00			11		4		
11:15			13		12			23:15			6		2		
11:30			20		12			23:30			4		0		
11:45			11	50	21	61	111	23:45			6	27	5	11	38
Total Vol.				548		556	**1104**					852		694	**1546**

Daily Totals

NB	SB	EB	WB	Combined
		1400	1250	**2650**

	AM					PM				
	NB	SB	EB	WB		NB	SB	EB	WB	
Split %			49.6%	50.4%	**41.7%**			55.1%	44.9%	**58.3%**
Peak Hour	0:30	0:30	5:45	7:30	**7:15**			15:45	15:15	**15:15**
Volume			102	114	**186**			113	116	**220**
P.H.F.			0.85	0.62	**0.75**			0.78	0.81	**0.76**

Wednesday, April 18, 2018	Location:	Desert Hot Springs	PROJECT:	SC1686

ADT75 Dillon east of Diablo. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			5		6			12:00			21		18		
0:15			5		0			12:15			24		20		
0:30			7		0			12:30			23		19		
0:45			7	24	0	6	30	12:45			27	95	14	71	166
1:00			0		0			13:00			18		29		
1:15			4		3			13:15			22		26		
1:30			7		0			13:30			26		21		
1:45			2	13	0	3	16	13:45			22	88	28	104	192
2:00			0		0			14:00			23		25		
2:15			0		0			14:15			21		27		
2:30			3		2			14:30			26		15		
2:45			3	6	5	7	13	14:45			28	98	36	103	201
3:00			4		3			15:00			27		28		
3:15			2		7			15:15			21		24		
3:30			2		3			15:30			22		22		
3:45			0	8	0	13	21	15:45			39	109	28	102	211
4:00			0		5			16:00			34		32		
4:15			4		5			16:15			22		26		
4:30			3		7			16:30			24		17		
4:45			4	11	8	25	36	16:45			22	102	31	106	208
5:00			2		10			17:00			25		19		
5:15			7		8			17:15			28		35		
5:30			10		19			17:30			17		18		
5:45			12	31	23	60	91	17:45			18	88	17	89	177
6:00			17		14			18:00			26		20		
6:15			33		25			18:15			25		17		
6:30			32		17			18:30			23		19		
6:45			31	113	16	72	185	18:45			15	89	12	68	157
7:00			21		11			19:00			11		10		
7:15			30		19			19:15			16		6		
7:30			29		32			19:30			21		9		
7:45			23	103	49	111	214	19:45			15	63	3	28	91
8:00			20		19			20:00			16		8		
8:15			24		19			20:15			12		9		
8:30			26		25			20:30			14		6		
8:45			18	88	21	84	172	20:45			15	57	8	31	88
9:00			12		17			21:00			11		4		
9:15			12		25			21:15			11		2		
9:30			18		16			21:30			6		5		
9:45			16	58	16	74	132	21:45			11	39	4	15	54
10:00			19		22			22:00			8		9		
10:15			18		25			22:15			13		2		
10:30			16		27			22:30			10		2		
10:45			21	74	18	92	166	22:45			7	38	2	15	53
11:00			13		16			23:00			13		5		
11:15			10		13			23:15			6		2		
11:30			26		16			23:30			7		2		
11:45			11	60	21	66	126	23:45			5	31	2	11	42
Total Vol.				589		613	**1202**					897		743	**1640**

Daily Totals

NB	SB	EB	WB	Combined
		1486	1356	**2842**

	NB	SB	EB	WB	AM		NB	SB	EB	WB	PM
Split %			49.0%	51.0%	**42.3%**				54.7%	45.3%	**57.7%**
Peak Hour	0:30	0:30	6:15	7:15	**7:15**				15:45	14:45	**15:30**
Volume			117	119	**221**				119	110	**225**
P.H.F.			0.89	0.61	**0.77**				0.76	0.76	**0.84**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT77 Dillon east of Indian Canyon **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			10		11			12:00			83		51		
0:15			7		8			12:15			102		62		
0:30			7		7			12:30			103		63		
0:45			11	35	9	35	70	12:45			106	394	59	235	629
1:00			7		4			13:00			113		64		
1:15			5		6			13:15			106		70		
1:30			10		8			13:30			100		68		
1:45			6	28	9	27	55	13:45			113	432	63	265	697
2:00			5		6			14:00			108		76		
2:15			5		7			14:15			102		65		
2:30			4		4			14:30			108		59		
2:45			7	21	5	22	43	14:45			122	440	69	269	709
3:00			7		7			15:00			114		68		
3:15			7		6			15:15			114		65		
3:30			4		5			15:30			119		70		
3:45			5	23	4	22	45	15:45			127	474	76	279	753
4:00			6		9			16:00			108		76		
4:15			10		8			16:15			117		71		
4:30			5		11			16:30			115		80		
4:45			14	35	15	43	78	16:45			110	450	68	295	745
5:00			12		17			17:00			114		71		
5:15			15		19			17:15			106		64		
5:30			25		24			17:30			100		60		
5:45			25	77	31	91	168	17:45			107	427	71	266	693
6:00			30		43			18:00			90		48		
6:15			37		51			18:15			81		54		
6:30			43		65			18:30			72		54		
6:45			52	162	70	229	391	18:45			78	321	51	207	528
7:00			52		79			19:00			67		46		
7:15			59		86			19:15			81		45		
7:30			82		121			19:30			79		44		
7:45			82	275	119	405	680	19:45			57	284	48	183	467
8:00			62		109			20:00			68		47		
8:15			53		104			20:15			54		40		
8:30			66		99			20:30			54		42		
8:45			47	228	82	394	622	20:45			46	222	30	159	381
9:00			44		68			21:00			51		27		
9:15			48		69			21:15			40		23		
9:30			48		71			21:30			38		26		
9:45			45	185	68	276	461	21:45			36	165	21	97	262
10:00			42		65			22:00			43		30		
10:15			45		61			22:15			44		26		
10:30			47		69			22:30			35		23		
10:45			40	174	63	258	432	22:45			27	149	21	100	249
11:00			58		72			23:00			21		17		
11:15			61		54			23:15			19		14		
11:30			53		59			23:30			17		12		
11:45			76	248	64	249	497	23:45			14	71	10	53	124
Total Vol.				1491		2051	**3542**					3829		2408	**6237**

Daily Totals

NB	SB	EB	WB	Combined
		5320	4459	**9779**

	AM						PM			
	NB	SB	EB	WB		NB	SB	EB	WB	
Split %			42.1%	57.9%	**36.2%**			61.4%	38.6%	**63.8%**
Peak Hour	0:30	0:30	11:45	7:30	**7:30**			15:00	15:45	**15:45**
Volume			364	453	**732**			474	303	**770**
P.H.F.			0.88	0.94	**0.90**			0.93	0.95	**0.95**

ADT83 20th west of Indian Canyon. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			0		0			12:00			5		5		
0:15			1		0			12:15			6		4		
0:30			0		0			12:30			4		0		
0:45			2	3	0	0	3	12:45			4	19	4	13	32
1:00			0		0			13:00			0		0		
1:15			1		0			13:15			6		9		
1:30			0		0			13:30			0		6		
1:45			0	1	0	0	1	13:45			7	13	4	19	32
2:00			0		1			14:00			4		2		
2:15			0		0			14:15			0		9		
2:30			0		0			14:30			4		8		
2:45			0	0	1	2	2	14:45			6	14	9	28	42
3:00			1		0			15:00			2		10		
3:15			0		1			15:15			6		13		
3:30			0		0			15:30			4		7		
3:45			1	2	0	1	3	15:45			0	12	12	42	54
4:00			0		0			16:00			5		6		
4:15			0		0			16:15			4		10		
4:30			1		0			16:30			3		7		
4:45			1	2	0	0	2	16:45			0	12	11	34	46
5:00			0		0			17:00			2		9		
5:15			5		1			17:15			3		9		
5:30			4		3			17:30			0		9		
5:45			8	17	1	5	22	17:45			8	13	3	30	43
6:00			9		1			18:00			0		2		
6:15			9		6			18:15			0		6		
6:30			4		3			18:30			3		5		
6:45			9	31	4	14	45	18:45			0	3	5	18	21
7:00			8		6			19:00			0		2		
7:15			5		4			19:15			0		0		
7:30			8		2			19:30			0		6		
7:45			12	33	7	19	52	19:45			0	0	2	10	10
8:00			6		2			20:00			0		0		
8:15			4		0			20:15			0		2		
8:30			0		2			20:30			0		0		
8:45			2	12	3	7	19	20:45			0	0	4	6	6
9:00			5		4			21:00			4		2		
9:15			3		2			21:15			0		0		
9:30			2		5			21:30			2		0		
9:45			2	12	4	15	27	21:45			0	6	2	4	10
10:00			3		4			22:00			0		2		
10:15			0		3			22:15			0		0		
10:30			2		0			22:30			0		0		
10:45			4	9	4	11	20	22:45			0	0	2	4	4
11:00			4		4			23:00			0		3		
11:15			0		6			23:15			0		0		
11:30			5		5			23:30			0		0		
11:45			5	14	2	17	31	23:45			0	0	0	3	3
Total Vol.				136		91	**227**					92		211	**303**

Daily Totals

NB	SB	EB	WB	Combined
		228	302	**530**

	AM					PM				
	NB	SB	EB	WB		NB	SB	EB	WB	
Split %			59.9%	40.1%	**42.8%**			30.4%	69.6%	**57.2%**
Peak Hour	0:30	0:30	7:00	6:15	**7:00**			12:00	15:00	**14:30**
Volume			33	19	**52**			19	42	**58**
P.H.F.			0.69	0.79	**0.68**			0.79	0.81	**0.76**

Wednesday, April 18, 2018 Location: Desert Hot Springs PROJECT: SC1686

ADT88 Varner west of Palm. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			0		0			12:00			0		0		
0:15			0		0			12:15			0		0		
0:30			0		0			12:30			0		0		
0:45			0	0	0	0		12:45			0	0	0	0	
1:00			0		0			13:00			0		0		
1:15			0		0			13:15			0		0		
1:30			0		0			13:30			0		0		
1:45			0	0	0	0		13:45			0	0	0	0	
2:00			0		0			14:00			0		0		
2:15			0		0			14:15			0		0		
2:30			0		0			14:30			0		0		
2:45			0	0	0	0		14:45			0	0	0	0	
3:00			0		0			15:00			0		0		
3:15			0		0			15:15			0		0		
3:30			0		0			15:30			0		0		
3:45			0	0	0	0		15:45			0	0	0	0	
4:00			0		0			16:00			0		1		
4:15			0		0			16:15			0		0		
4:30			0		0			16:30			0		0		
4:45			0	0	0	0		16:45			1	1	1	2	3
5:00			0		0			17:00			0		0		
5:15			0		0			17:15			0		0		
5:30			0		0			17:30			0		1		
5:45			0	0	0	0		17:45			1	1	0	1	2
6:00			0		0			18:00			0		0		
6:15			0		0			18:15			0		0		
6:30			0		0			18:30			0		0		
6:45			0	0	0	0		18:45			0	0	0	0	
7:00			0		0			19:00			0		0		
7:15			0		0			19:15			0		0		
7:30			0		0			19:30			0		0		
7:45			0	0	0	0		19:45			0	0	0	0	
8:00			0		0			20:00			0		0		
8:15			0		0			20:15			0		0		
8:30			0		0			20:30			0		0		
8:45			0	0	0	0		20:45			0	0	0	0	
9:00			1		0			21:00			0		0		
9:15			0		0			21:15			0		0		
9:30			0		0			21:30			0		0		
9:45			0	1	0	0	1	21:45			0	0	0	0	
10:00			1		1			22:00			0		0		
10:15			0		0			22:15			0		0		
10:30			0		0			22:30			0		0		
10:45			0	1	0	1	2	22:45			0	0	0	0	
11:00			0		0			23:00			0		0		
11:15			0		0			23:15			0		0		
11:30			0		0			23:30			0		0		
11:45			0	0	0	0		23:45			0	0	0	0	
Total Vol.				2		1	**3**					2		3	**5**

Daily Totals

NB	SB	EB	WB	Combined
		4	4	**8**

	NB	SB	EB	WB	AM Combined	NB	SB	EB	WB	PM Combined
Split %			66.7%	33.3%	**37.5%**			40.0%	60.0%	**62.5%**
Peak Hour	0:30	0:30	8:15	9:15	**9:15**			16:00	16:00	**16:00**
Volume			1	1	**2**			1	2	**3**
P.H.F.			0.25	0.25	**0.25**			0.25	0.50	**0.38**

APPENDIX C

LEVEL OF SERVICE WORKSHEETS

EXISTING

Desert Hot Springs General Plan Update

Vistro File: G:\...\E AM.vistro
Report File: G:\...\E AM.pdf

Scenario 1 Existing
4/24/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.450	10.5	B
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.438	9.1	A
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.250	16.6	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	0.631	15.0	C
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.000	15.6	C
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	1.007	49.3	E
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.395	15.7	B
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	WB Left	0.264	10.1	B
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.538	14.5	B
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	WB Left	0.495	12.3	B
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.723	19.3	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.486	12.6	B
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.536	22.1	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.473	18.6	B
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Right	1.018	55.0	E
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.687	27.1	C
19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.004	19.0	C

20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.778	7.9	A
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.472	25.2	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.718	25.8	C
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	SB Left	1.163	83.1	F
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.618	12.9	B
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Left	0.370	30.7	D
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Thru	0.010	12.5	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.450

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	394	5	183	886	0	0	1	0	0	0	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	394	5	183	886	0	0	1	0	0	0	125
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	1	50	243	0	0	0	0	0	0	34
Total Analysis Volume [veh/h]	0	433	5	201	974	0	0	1	0	0	0	137
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	13	13	0	0	36	0	0	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	33	33	8	41	41	7	7	7
g / C, Green / Cycle	0.00	0.55	0.55	0.14	0.69	0.69	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.00	0.12	0.00	0.11	0.27	0.00	0.00	0.00	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1870	1589
c, Capacity [veh/h]	3	1952	871	250	2444	1091	270	270	178
d1, Uniform Delay [s]	0.00	6.99	6.16	25.07	4.07	0.00	23.73	0.00	25.95
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.26	0.01	6.01	0.49	0.00	0.01	0.00	6.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.22	0.01	0.80	0.40	0.00	0.00	0.00	0.77
d, Delay for Lane Group [s/veh]	0.00	7.25	6.17	31.08	4.56	0.00	23.73	0.00	32.75
Lane Group LOS	A	A	A	C	A	A	C	A	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	0.82	0.02	2.76	0.96	0.00	0.01	0.00	1.96
50th-Percentile Queue Length [ft/ln]	0.00	20.48	0.45	69.02	23.96	0.00	0.31	0.00	48.95
95th-Percentile Queue Length [veh/ln]	0.00	1.47	0.03	4.97	1.73	0.00	0.02	0.00	3.52
95th-Percentile Queue Length [ft/ln]	0.00	36.87	0.81	124.23	43.13	0.00	0.56	0.00	88.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	7.25	6.17	31.08	4.56	0.00	23.73	23.73	23.73	0.00	0.00	32.75
Movement LOS	A	A	A	C	A	A	C	C	C	A	A	C
d_A, Approach Delay [s/veh]	7.24			9.09			23.73			32.75		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	10.49											
Intersection LOS	B											
Intersection V/C	0.450											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	300	1067	1067
d_b, Bicycle Delay [s]	23.41	21.68	6.53	6.53
I_b,int, Bicycle LOS Score for Intersection	1.921	2.529	1.561	1.786
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.438

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	9	448	45	17	952	3	1	6	11	73	6	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	448	45	17	952	3	1	6	11	73	6	6
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	121	12	5	258	1	0	2	3	20	2	2
Total Analysis Volume [veh/h]	10	485	49	18	1031	3	1	7	12	79	7	7
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	12	24	0	34	46	0	0	11	0	0	11	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	53	53	2	54	54	3	3	6	6
g / C, Green / Cycle	0.02	0.66	0.66	0.03	0.67	0.67	0.03	0.03	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.03	0.01	0.29	0.00	0.00	0.01	0.05	0.00
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1858	1589	1788	1589
c, Capacity [veh/h]	34	2349	1049	54	2390	1067	60	52	139	124
d1, Uniform Delay [s]	38.81	5.38	4.79	38.08	6.10	4.34	37.71	37.83	35.84	34.26
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.71	0.20	0.08	3.49	0.57	0.00	0.98	2.27	4.42	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.21	0.05	0.33	0.43	0.00	0.13	0.23	0.62	0.06
d, Delay for Lane Group [s/veh]	43.52	5.57	4.88	41.57	6.67	4.35	38.69	40.10	40.26	34.45
Lane Group LOS	D	A	A	D	A	A	D	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.22	0.92	0.18	0.36	2.22	0.01	0.17	0.26	1.66	0.12
50th-Percentile Queue Length [ft/ln]	5.48	23.08	4.48	9.10	55.55	0.25	4.16	6.45	41.57	3.07
95th-Percentile Queue Length [veh/ln]	0.39	1.66	0.32	0.66	4.00	0.02	0.30	0.46	2.99	0.22
95th-Percentile Queue Length [ft/ln]	9.86	41.54	8.06	16.38	99.99	0.44	7.49	11.62	74.83	5.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.52	5.57	4.88	41.57	6.67	4.35	38.69	38.69	40.10	40.26	40.26	34.45
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	C
d_A, Approach Delay [s/veh]	6.21			7.26			39.54			39.82		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	9.08											
Intersection LOS	A											
Intersection V/C	0.438											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	1050	175	175
d_b, Bicycle Delay [s]	22.50	9.03	33.31	33.31
I_b,int, Bicycle LOS Score for Intersection	2.008	2.428	1.593	1.713
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.250

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	74	63	48	139	186	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	63	48	139	186	85
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	18	13	39	52	24
Total Analysis Volume [veh/h]	83	70	54	155	208	95
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	21	0	12	33	27	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	4	43	9	9
g / C, Green / Cycle	0.57	0.57	0.07	0.71	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.03	0.08	0.12	0.06
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	1072	911	127	1330	278	248
d1, Uniform Delay [s]	5.74	5.74	26.74	2.74	24.26	22.79
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.16	2.23	0.18	4.03	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.08	0.42	0.12	0.75	0.38
d, Delay for Lane Group [s/veh]	5.88	5.90	28.97	2.92	28.29	23.76
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.31	0.27	0.72	0.20	2.74	1.11
50th-Percentile Queue Length [ft/ln]	7.73	6.67	17.97	4.99	68.46	27.71
95th-Percentile Queue Length [veh/ln]	0.56	0.48	1.29	0.36	4.93	2.00
95th-Percentile Queue Length [ft/ln]	13.91	12.01	32.35	8.98	123.24	49.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.88	5.90	28.97	2.92	28.29	23.76
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	5.89		9.65		26.87	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	16.63					
Intersection LOS	B					
Intersection V/C	0.250					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.282
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.385	4.477	4.132
Bicycle LOS	E	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┤┌			┼			┤┌			┼		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	9	116	86	54	247	21	18	88	36	156	41	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	116	86	54	247	21	18	88	36	156	41	15
Peak Hour Factor	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910	0.8910
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	33	24	15	69	6	5	25	10	44	12	4
Total Analysis Volume [veh/h]	10	130	97	61	277	24	20	99	40	175	46	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	549	620	573	517	585	531
Degree of Utilization, x	0.26	0.16	0.63	0.23	0.07	0.45

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.01	0.55	4.40	0.88	0.22	2.30
95th-Percentile Queue Length [ft]	25.18	13.80	110.11	22.01	5.49	57.46
Approach Delay [s/veh]	10.71		19.42	11.12		15.20
Approach LOS	B		C	B		C
Intersection Delay [s/veh]	15.01					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	197	0	0	457	0	0	0	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	197	0	0	457	0	0	0	1	0	0	0
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	55	0	0	127	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	219	0	0	508	0	0	0	1	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.41	0.00	0.00	7.67	0.00	0.00	15.62	15.28	11.38	15.63	15.27	9.39
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			11.38			13.43		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	49.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.007

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	180	128	25	424	7	1	64	38	359	72	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	180	128	25	424	7	1	64	38	359	72	18
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	47	34	7	111	2	0	17	10	94	19	5
Total Analysis Volume [veh/h]	13	189	134	26	444	7	1	67	40	376	75	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	448	493	482	534	412	448	451	522
Degree of Utilization, x	0.45	0.27	0.97	0.01	0.17	0.09	1.01	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.29	1.10	12.52	0.04	0.58	0.29	13.20	0.11
95th-Percentile Queue Length [ft]	57.34	27.39	312.95	1.00	14.62	7.31	329.88	2.83
Approach Delay [s/veh]	15.40		61.05		12.55		70.08	
Approach LOS	C		F		B		F	
Intersection Delay [s/veh]	49.31							
Intersection LOS	E							

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.395

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	22	239	4	3	794	21	23	0	68	263	32	111
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	239	4	3	794	21	23	0	68	263	32	111
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	63	1	1	210	6	6	0	18	69	8	29
Total Analysis Volume [veh/h]	23	252	4	3	838	22	24	0	72	278	34	117
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	22	22	0	11	16	0	16	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	36	36	0	34	34	3	5	5	7	10	10
g / C, Green / Cycle	0.04	0.55	0.55	0.01	0.52	0.52	0.04	0.08	0.08	0.11	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.01	0.07	0.00	0.00	0.16	0.16	0.01	0.00	0.05	0.08	0.05	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1846	1781	1870	1589	3459	1701	1589
c, Capacity [veh/h]	69	1965	877	14	1853	961	72	150	127	399	264	247
d1, Uniform Delay [s]	30.54	7.05	6.57	32.20	8.92	8.93	30.48	0.00	28.93	27.78	24.41	24.41
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.76	0.13	0.01	8.02	0.43	0.82	2.71	0.00	3.89	2.21	0.62	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.13	0.00	0.22	0.31	0.31	0.33	0.00	0.57	0.70	0.30	0.30
d, Delay for Lane Group [s/veh]	33.30	7.19	6.58	40.22	9.35	9.75	33.19	0.00	32.81	29.99	25.03	25.08
Lane Group LOS	C	A	A	D	A	A	C	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.37	0.59	0.02	0.07	1.66	1.83	0.41	0.00	1.18	2.11	1.06	0.99
50th-Percentile Queue Length [ft/ln]	9.13	14.64	0.46	1.80	41.53	45.81	10.17	0.00	29.41	52.73	26.51	24.87
95th-Percentile Queue Length [veh/ln]	0.66	1.05	0.03	0.13	2.99	3.30	0.73	0.00	2.12	3.80	1.91	1.79
95th-Percentile Queue Length [ft/ln]	16.43	26.34	0.83	3.24	74.75	82.46	18.30	0.00	52.94	94.91	47.72	44.77

Movement, Approach, & Intersection Results

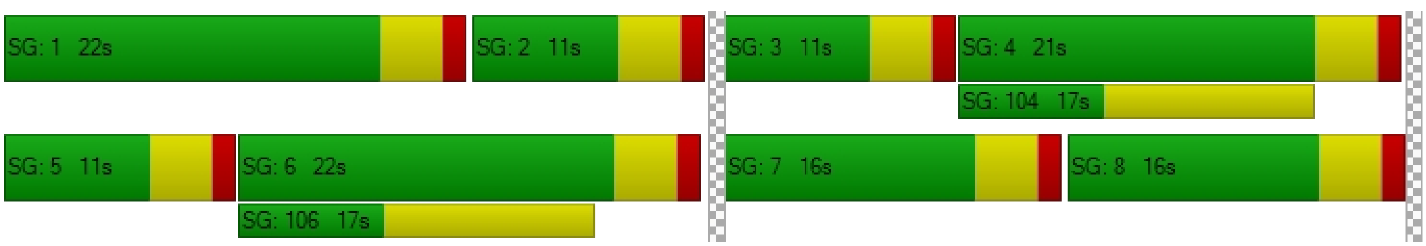
d_M, Delay for Movement [s/veh]	33.30	7.19	6.58	40.22	9.48	9.75	33.19	0.00	32.81	29.99	25.03	25.06
Movement LOS	C	A	A	D	A	A	C	A	C	C	C	C
d_A, Approach Delay [s/veh]	9.33			9.59			32.91			28.25		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.69											
Intersection LOS	B											
Intersection V/C	0.395											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.809	2.156	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	215	554	369	523
d_b, Bicycle Delay [s]	25.88	16.99	21.61	17.72
I_b,int, Bicycle LOS Score for Intersection	1.790	2.034	1.718	2.267
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.264

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	42	31	59	20	68	17	13	87	64	119	113	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	31	59	20	68	17	13	87	64	119	113	20
Peak Hour Factor	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000	0.8000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	10	18	6	21	5	4	27	20	37	35	6
Total Analysis Volume [veh/h]	53	39	74	25	85	21	16	109	80	149	141	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	540	629	536	579	650	546	590	666	565	613	695
Degree of Utilization, x	0.10	0.18	0.05	0.15	0.03	0.03	0.18	0.12	0.26	0.23	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.32	0.65	0.15	0.51	0.10	0.09	0.67	0.41	1.05	0.88	0.11
95th-Percentile Queue Length [ft]	8.11	16.26	3.66	12.81	2.50	2.26	16.80	10.18	26.35	22.10	2.80
Approach Delay [s/veh]	9.80		9.69			9.60			10.63		
Approach LOS	A		A			A			B		
Intersection Delay [s/veh]	10.05										
Intersection LOS	B										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.538

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	17	54	71	80	147	26	31	200	54	80	179	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	54	71	80	147	26	31	200	54	80	179	51
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	15	20	22	41	7	9	56	15	22	50	14
Total Analysis Volume [veh/h]	19	60	79	89	164	29	35	223	60	89	200	57
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	574	580	540	612	537	617
Degree of Utilization, x	0.28	0.49	0.48	0.10	0.54	0.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.11	2.65	2.56	0.33	3.17	0.30
95th-Percentile Queue Length [ft]	27.86	66.32	64.10	8.13	79.30	7.60
Approach Delay [s/veh]	11.63	14.95	14.19		15.66	
Approach LOS	B	B	B		C	
Intersection Delay [s/veh]	14.48					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.495

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	2	123	80	84	211	1	1	8	15	187	6	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	123	80	84	211	1	1	8	15	187	6	29
Peak Hour Factor	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690	0.8690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	35	23	24	61	0	0	2	4	54	2	8
Total Analysis Volume [veh/h]	2	142	92	97	243	1	1	9	17	215	7	33
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	705	689	627	548	670
Degree of Utilization, x	0.33	0.50	0.04	0.41	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.47	2.77	0.13	1.95	0.16
95th-Percentile Queue Length [ft]	36.83	69.15	3.37	48.78	3.88
Approach Delay [s/veh]	10.66	13.24	9.00	12.99	
Approach LOS	B	B	A	B	
Intersection Delay [s/veh]	12.32				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.723

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	164	0	228	104	115	0	1	261	118
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	164	0	228	104	115	0	1	261	118
Peak Hour Factor	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940	0.8940
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	46	0	64	29	32	0	0	73	33
Total Analysis Volume [veh/h]	0	0	0	183	0	255	116	129	0	1	292	132
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	514	641	502	540	524	587
Degree of Utilization, x	0.00	0.68	0.23	0.24	0.00	0.72

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.00	5.34	0.89	0.92	0.01	6.03
95th-Percentile Queue Length [ft]	0.00	133.46	22.13	23.09	0.14	150.83
Approach Delay [s/veh]	0.00	19.82	11.71		23.16	
Approach LOS	A	C	B		C	
Intersection Delay [s/veh]	19.31					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.486

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	208	14	22	1	24	4	4	30	211	70	39	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	208	14	22	1	24	4	4	30	211	70	39	2
Peak Hour Factor	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820	0.7820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	4	7	0	8	1	1	10	67	22	12	1
Total Analysis Volume [veh/h]	266	18	28	1	31	5	5	38	270	90	50	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	547	593	670	527	590	582	664	536	633
Degree of Utilization, x	0.49	0.03	0.04	0.06	0.01	0.07	0.41	0.26	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.64	0.09	0.13	0.19	0.03	0.24	1.98	1.04	0.01
95th-Percentile Queue Length [ft]	66.04	2.35	3.27	4.84	0.64	5.96	49.47	25.96	0.36
Approach Delay [s/veh]	14.35			9.83		11.47		11.70	
Approach LOS	B			A		B		B	
Intersection Delay [s/veh]	12.55								
Intersection LOS	B								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┓‖┣			┓‖┣			┓‖┣			┓‖┣		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	193	270	51	24	453	27	16	132	170	74	170	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	270	51	24	453	27	16	132	170	74	170	27
Peak Hour Factor	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	71	13	6	118	7	4	34	44	19	44	7
Total Analysis Volume [veh/h]	202	282	53	25	473	28	17	138	178	77	178	28
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	32	32	3	26	26	2	10	10	5	13	13
g / C, Green / Cycle	0.12	0.48	0.48	0.04	0.40	0.40	0.03	0.15	0.15	0.08	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.11	0.09	0.09	0.01	0.14	0.14	0.01	0.07	0.11	0.04	0.06	0.06
s, saturation flow rate [veh/h]	1781	1870	1769	1781	1870	1834	1781	1870	1589	1781	1870	1783
c, Capacity [veh/h]	221	902	853	74	748	733	55	277	235	148	375	357
d1, Uniform Delay [s]	28.26	9.63	9.64	30.41	13.58	13.59	30.96	25.58	26.68	28.68	22.10	22.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.99	0.47	0.50	2.67	1.22	1.25	3.17	1.39	4.92	2.82	0.40	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.19	0.19	0.34	0.34	0.34	0.31	0.50	0.76	0.52	0.28	0.28
d, Delay for Lane Group [s/veh]	42.24	10.09	10.14	33.08	14.81	14.85	34.13	26.97	31.60	31.51	22.50	22.57
Lane Group LOS	D	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.76	1.29	1.24	0.42	2.51	2.47	0.30	1.94	2.79	1.20	1.30	1.27
50th-Percentile Queue Length [ft/ln]	94.05	32.21	31.00	10.40	62.66	61.86	7.40	48.55	69.76	30.06	32.41	31.75
95th-Percentile Queue Length [veh/ln]	6.77	2.32	2.23	0.75	4.51	4.45	0.53	3.50	5.02	2.16	2.33	2.29
95th-Percentile Queue Length [ft/ln]	169.28	57.98	55.81	18.73	112.78	111.35	13.33	87.39	125.56	54.10	58.35	57.16

Movement, Approach, & Intersection Results

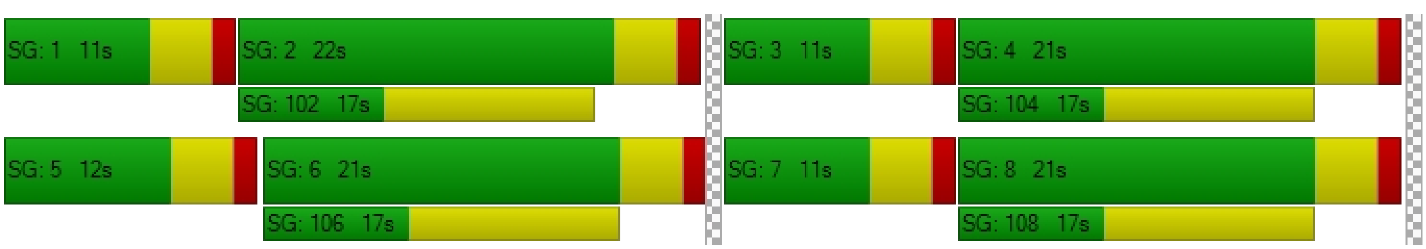
d_M, Delay for Movement [s/veh]	42.24	10.11	10.14	33.08	14.82	14.85	34.13	26.97	31.60	31.51	22.53	22.57
Movement LOS	D	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	22.20			15.69			29.81			24.98		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	22.14											
Intersection LOS	C											
Intersection V/C	0.536											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.570	2.476	2.450	2.395
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.003	1.994	1.834	1.793
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.473

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	50	565	44	85	657	22	23	124	93	121	121	96
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	565	44	85	657	22	23	124	93	121	121	96
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	146	11	22	170	6	6	32	24	31	31	25
Total Analysis Volume [veh/h]	52	583	45	88	678	23	24	128	96	125	125	99
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	30	30	6	32	32	3	7	7	6	11	11
g / C, Green / Cycle	0.07	0.46	0.46	0.09	0.48	0.48	0.04	0.11	0.11	0.10	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.17	0.05	0.19	0.19	0.01	0.06	0.07	0.07	0.07	0.06
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1848	1781	1870	1617	1781	1870	1589
c, Capacity [veh/h]	121	864	843	156	901	891	72	199	172	175	308	262
d1, Uniform Delay [s]	29.21	11.37	11.37	28.57	10.79	10.79	30.48	27.77	27.92	28.54	24.41	24.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.40	1.20	1.24	3.16	1.28	1.29	2.71	2.67	3.73	5.33	0.86	0.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.37	0.37	0.56	0.39	0.39	0.33	0.58	0.63	0.71	0.41	0.38
d, Delay for Lane Group [s/veh]	31.61	12.57	12.61	31.73	12.06	12.08	33.19	30.44	31.65	33.87	25.27	25.19
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.82	2.81	2.75	1.38	3.02	2.99	0.39	1.70	1.64	2.01	1.65	1.31
50th-Percentile Queue Length [ft/ln]	20.46	70.25	68.87	34.47	75.61	74.87	9.75	42.59	41.02	50.15	41.29	32.73
95th-Percentile Queue Length [veh/ln]	1.47	5.06	4.96	2.48	5.44	5.39	0.70	3.07	2.95	3.61	2.97	2.36
95th-Percentile Queue Length [ft/ln]	36.83	126.45	123.96	62.04	136.09	134.76	17.56	76.66	73.84	90.27	74.32	58.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.61	12.59	12.61	31.73	12.07	12.08	33.19	30.55	31.65	33.87	25.27	25.19
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]		14.05			14.27			31.23			28.33	
Approach LOS		B			B			C			C	
d_I, Intersection Delay [s/veh]	18.61											
Intersection LOS	B											
Intersection V/C	0.473											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.734	2.622	2.277	2.440
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.121	2.211	1.764	2.135
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	55.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.018

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	181	594	188	64	885	24	40	182	373	259	139	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	181	594	188	64	885	24	40	182	373	259	139	45
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	174	55	19	259	7	12	53	109	76	41	13
Total Analysis Volume [veh/h]	212	696	220	75	1036	28	47	213	437	303	163	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	25	32	0	14	31	0	21	38	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	34	34	6	28	28	5	27	27	17	39	39
g / C, Green / Cycle	0.12	0.34	0.34	0.06	0.28	0.28	0.05	0.27	0.27	0.17	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.12	0.20	0.14	0.04	0.29	0.02	0.03	0.11	0.27	0.17	0.09	0.03
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	214	1210	540	110	1002	447	91	502	427	303	724	615
d1, Uniform Delay [s]	43.95	27.09	25.29	45.99	35.94	26.29	46.23	30.21	36.59	41.51	20.57	19.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.39	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	26.49	1.99	2.27	7.31	37.61	0.27	4.41	0.57	44.70	26.77	0.16	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.99	0.58	0.41	0.68	1.03	0.06	0.51	0.42	1.02	1.00	0.23	0.09
d, Delay for Lane Group [s/veh]	70.45	29.08	27.56	53.30	73.55	26.56	50.65	30.77	81.29	68.28	20.73	19.49
Lane Group LOS	E	C	C	D	F	C	D	C	F	F	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.65	6.83	4.17	2.02	16.99	0.51	1.22	4.16	15.20	9.53	2.51	0.77
50th-Percentile Queue Length [ft/ln]	166.36	170.75	104.37	50.52	424.81	12.86	30.59	103.95	379.92	238.30	62.80	19.30
95th-Percentile Queue Length [veh/ln]	10.88	11.12	7.51	3.64	24.25	0.93	2.20	7.48	21.90	14.60	4.52	1.39
95th-Percentile Queue Length [ft/ln]	272.12	277.90	187.86	90.93	606.28	23.14	55.06	187.10	547.55	364.95	113.03	34.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	70.45	29.08	27.56	53.30	73.55	26.56	50.65	30.77	81.29	68.28	20.73	19.49
Movement LOS	E	C	C	D	F	C	D	C	F	F	C	B
d_A, Approach Delay [s/veh]	36.56			71.06			63.78			48.36		
Approach LOS	D			E			E			D		
d_I, Intersection Delay [s/veh]	55.05											
Intersection LOS	E											
Intersection V/C	1.018											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	3.138	2.825	2.591	2.428
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	380	560	540	680
d_b, Bicycle Delay [s]	32.81	25.92	26.65	21.78
I_b,int, Bicycle LOS Score for Intersection	2.490	2.499	2.710	2.416
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	27.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.687

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	109	488	65	41	82	36	64	225	309	212	56	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	488	65	41	82	36	64	225	309	212	56	0
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	137	18	11	23	10	18	63	87	59	16	0
Total Analysis Volume [veh/h]	122	546	73	46	92	40	72	252	346	237	63	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	15	22	0	15	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	22	22	4	20	20	5	17	17	11	23	23
g / C, Green / Cycle	0.09	0.31	0.31	0.06	0.28	0.28	0.08	0.24	0.24	0.16	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.05	0.03	0.03	0.03	0.04	0.13	0.22	0.13	0.03	0.00
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	163	1111	496	107	1000	446	136	453	385	280	604	514
d1, Uniform Delay [s]	31.06	19.60	17.39	31.79	18.62	18.61	31.17	23.27	25.73	28.73	16.62	0.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.69	1.55	0.63	2.69	0.18	0.40	3.17	1.07	7.65	6.96	0.07	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.49	0.15	0.43	0.09	0.09	0.53	0.56	0.90	0.85	0.10	0.00
d, Delay for Lane Group [s/veh]	37.75	21.15	18.02	34.48	18.80	19.00	34.34	24.34	33.38	35.69	16.70	0.00
Lane Group LOS	D	C	B	C	B	B	C	C	C	D	B	A
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.06	3.19	0.79	0.75	0.50	0.46	1.17	3.26	5.56	3.93	0.61	0.00
50th-Percentile Queue Length [ft/ln]	51.58	79.66	19.63	18.86	12.41	11.47	29.19	81.38	138.92	98.19	15.21	0.00
95th-Percentile Queue Length [veh/ln]	3.71	5.74	1.41	1.36	0.89	0.83	2.10	5.86	9.42	7.07	1.09	0.00
95th-Percentile Queue Length [ft/ln]	92.84	143.39	35.34	33.95	22.34	20.64	52.54	146.49	235.57	176.74	27.37	0.00

Movement, Approach, & Intersection Results

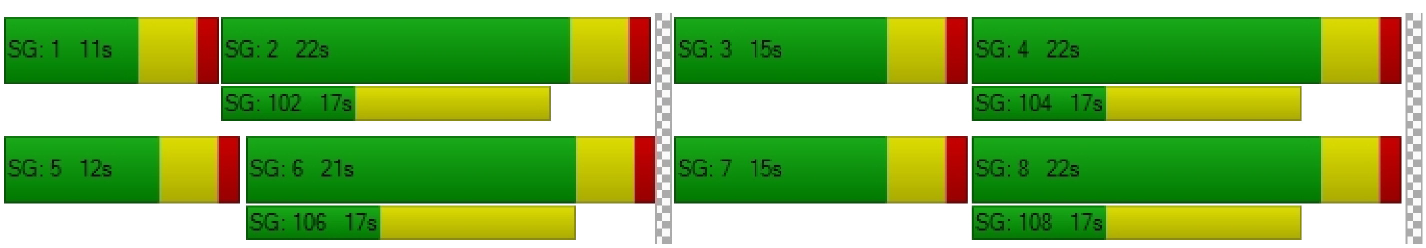
d_M, Delay for Movement [s/veh]	37.75	21.15	18.02	34.48	18.80	19.00	34.34	24.34	33.38	35.69	16.70	0.00
Movement LOS	D	C	B	C	B	B	C	C	C	D	B	A
d_A, Approach Delay [s/veh]	23.58			22.90			30.08			31.70		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.11											
Intersection LOS	C											
Intersection V/C	0.687											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.975	2.783	2.517	2.417
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	514	486	514	514
d_b, Bicycle Delay [s]	19.31	20.06	19.31	19.31
I_b,int, Bicycle LOS Score for Intersection	2.171	1.706	2.665	2.055
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	0	658	16	5	1	2	0	1	75	1	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	658	16	5	1	2	0	1	75	1	2	0
Peak Hour Factor	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570	0.8570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	192	5	1	0	1	0	0	22	0	1	0
Total Analysis Volume [veh/h]	0	768	19	6	1	2	0	1	88	1	2	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.08	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	7.23	0.00	0.00	9.38	0.00	0.00	12.10	16.77	8.64	18.99	16.32	10.98
Movement LOS	A	A	A	A	A	A	B	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.28	0.28	0.28	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.55	0.00	0.00	6.90	6.90	6.90	0.76	0.76	0.76
d_A, Approach Delay [s/veh]	0.00			6.25			8.73			17.21		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	1.00											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	0	663	27	35	1859	0	0	0	0	55	0	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	663	27	35	1859	0	0	0	0	55	0	15
Peak Hour Factor	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	202	8	11	567	0	0	0	0	17	0	5
Total Analysis Volume [veh/h]	0	810	33	43	2270	0	0	0	0	67	0	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	76	0	13	78	0	0	21	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	85	85	5	91	91	7	7
g / C, Green / Cycle	0.00	0.78	0.78	0.05	0.82	0.82	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.00	0.23	0.02	0.02	0.64	0.00	0.00	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1392	1536
c, Capacity [veh/h]	1	2763	1233	84	2928	1307	127	163
d1, Uniform Delay [s]	0.00	3.57	2.82	51.18	4.79	0.00	0.00	50.38
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.27	0.04	4.82	2.08	0.00	0.00	2.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.29	0.03	0.51	0.78	0.00	0.00	0.52
d, Delay for Lane Group [s/veh]	0.00	3.84	2.86	56.00	6.87	0.00	0.00	52.95
Lane Group LOS	A	A	A	E	A	A	A	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.46	0.10	1.21	4.47	0.00	0.00	2.31
50th-Percentile Queue Length [ft/ln]	0.00	36.39	2.52	30.20	111.83	0.00	0.00	57.86
95th-Percentile Queue Length [veh/ln]	0.00	2.62	0.18	2.17	7.94	0.00	0.00	4.17
95th-Percentile Queue Length [ft/ln]	0.00	65.49	4.53	54.36	198.54	0.00	0.00	104.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.84	2.86	56.00	6.87	0.00	0.00	0.00	0.00	52.95	52.95	52.95
Movement LOS	A	A	A	E	A	A	A	A	A	D	D	D
d_A, Approach Delay [s/veh]	3.81			7.78			0.00			52.95		
Approach LOS	A			A			A			D		
d_I, Intersection Delay [s/veh]	7.93											
Intersection LOS	A											
Intersection V/C	0.778											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	44.55	44.55	44.55
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.478	1.724	1.868
Crosswalk LOS	F	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1309	1345	309	309
d_b, Bicycle Delay [s]	6.56	5.89	39.31	39.31
I_b,int, Bicycle LOS Score for Intersection	2.255	3.468	1.560	1.700
Bicycle LOS	B	C	A	A

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	94	56	34	53	55	7	6	232	119	81	263	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	56	34	53	55	7	6	232	119	81	263	37
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	15	9	14	15	2	2	63	32	22	72	10
Total Analysis Volume [veh/h]	103	61	37	58	60	8	7	253	130	88	287	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	22	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	23	5	21	21	1	16	6	21
g / C, Green / Cycle	0.09	0.35	0.07	0.33	0.33	0.01	0.25	0.09	0.32
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.03	0.03	0.01	0.00	0.22	0.05	0.18
s, saturation flow rate [veh/h]	1781	1753	1781	1870	1589	1781	1764	1781	1830
c, Capacity [veh/h]	165	614	129	616	524	26	432	156	582
d1, Uniform Delay [s]	28.51	14.61	29.04	15.16	14.75	31.80	23.77	28.57	18.49
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.56	2.46	0.32	0.05	5.23	6.25	3.16	0.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.16	0.45	0.10	0.02	0.27	0.89	0.56	0.56
d, Delay for Lane Group [s/veh]	32.32	15.16	31.50	15.48	14.80	37.03	30.02	31.73	19.35
Lane Group LOS	C	B	C	B	B	D	C	C	B
Critical Lane Group	Yes	No	No	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.68	1.04	0.91	0.61	0.08	0.14	5.79	1.36	3.72
50th-Percentile Queue Length [ft/ln]	42.01	25.96	22.72	15.32	2.01	3.51	144.85	33.94	92.93
95th-Percentile Queue Length [veh/ln]	3.02	1.87	1.64	1.10	0.14	0.25	9.74	2.44	6.69
95th-Percentile Queue Length [ft/ln]	75.62	46.73	40.90	27.57	3.61	6.31	243.54	61.10	167.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.32	15.16	15.16	31.50	15.48	14.80	37.03	30.02	30.02	31.73	19.35	19.35
Movement LOS	C	B	B	C	B	B	D	C	C	C	B	B
d_A, Approach Delay [s/veh]	23.95			22.81			30.14			21.97		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.23											
Intersection LOS	C											
Intersection V/C	0.472											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.052	2.180	2.369	2.253
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	554	523
d_b, Bicycle Delay [s]	17.72	17.72	16.99	17.72
I_b,int, Bicycle LOS Score for Intersection	1.891	1.768	2.203	2.244
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	32	90	48	4	350	103	28	75	119	192	189	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	90	48	4	350	103	28	75	119	192	189	14
Peak Hour Factor	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	25	13	1	98	29	8	21	33	54	53	4
Total Analysis Volume [veh/h]	36	101	54	4	394	116	31	84	134	216	213	16
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	13	24	0	14	25	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	1	29	3	11	10	18
g / C, Green / Cycle	0.05	0.46	0.01	0.42	0.05	0.16	0.14	0.25
(v / s)_i Volume / Saturation Flow Rate	0.02	0.09	0.00	0.28	0.02	0.13	0.12	0.12
s, saturation flow rate [veh/h]	1781	1762	1781	1798	1781	1687	1781	1847
c, Capacity [veh/h]	93	813	17	752	84	267	255	469
d1, Uniform Delay [s]	32.19	11.17	34.56	16.60	32.44	28.59	29.33	22.31
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.58	0.52	7.36	4.88	2.65	6.08	7.52	0.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.19	0.24	0.68	0.37	0.82	0.85	0.49
d, Delay for Lane Group [s/veh]	34.77	11.69	41.92	21.48	35.09	34.67	36.85	23.10
Lane Group LOS	C	B	D	C	D	C	D	C
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.60	1.21	0.10	6.20	0.52	3.55	3.65	2.85
50th-Percentile Queue Length [ft/ln]	14.96	30.30	2.38	155.06	13.03	88.84	91.21	71.25
95th-Percentile Queue Length [veh/ln]	1.08	2.18	0.17	10.29	0.94	6.40	6.57	5.13
95th-Percentile Queue Length [ft/ln]	26.92	54.55	4.28	257.16	23.46	159.90	164.17	128.26

Movement, Approach, & Intersection Results

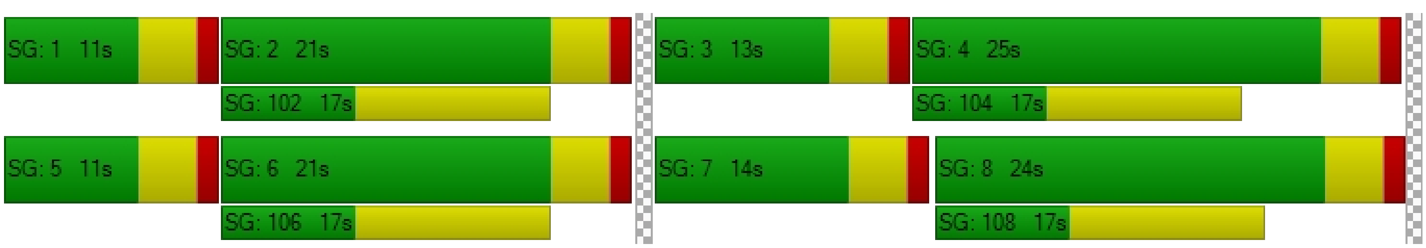
d_M, Delay for Movement [s/veh]	34.77	11.69	11.69	41.92	21.48	21.48	35.09	34.67	34.67	36.85	23.10	23.10
Movement LOS	C	B	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	16.04			21.64			34.72			29.77		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	25.79											
Intersection LOS	C											
Intersection V/C	0.718											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.483	2.321	2.292	2.276
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	600
d_b, Bicycle Delay [s]	20.06	20.06	17.86	17.15
I_b,int, Bicycle LOS Score for Intersection	1.875	2.408	1.970	2.294
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	83.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.163

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	690	57	11	50	17	171
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	690	57	11	50	17	171
Peak Hour Factor	0.8770	0.8770	0.8770	0.8770	0.8770	0.8770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	197	16	3	14	5	49
Total Analysis Volume [veh/h]	787	65	13	57	19	195
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	852	567	550	615
Degree of Utilization, x	1.16	0.12	0.03	0.32

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	26.83	0.42	0.11	1.36
95th-Percentile Queue Length [ft]	670.69	10.49	2.68	33.96
Approach Delay [s/veh]	107.13	10.24	11.10	
Approach LOS	F	B	B	
Intersection Delay [s/veh]	83.07			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.618

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	1	83	3	26	30	124	12	3	317	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	83	3	26	30	124	12	3	317	106
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	22	1	7	8	33	3	1	85	29
Total Analysis Volume [veh/h]	0	1	1	89	3	28	32	133	13	3	341	114
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	668	659	621	688	647	736
Degree of Utilization, x	0.00	0.18	0.05	0.21	0.00	0.62

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	0.66	0.16	0.80	0.01	4.32
95th-Percentile Queue Length [ft]	0.23	16.53	4.06	19.95	0.35	108.06
Approach Delay [s/veh]	8.40	9.67	9.24		15.12	
Approach LOS	A	A	A		C	
Intersection Delay [s/veh]	12.86					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.370

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	10	876	2	0	5	14	77	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	10	876	2	0	5	14	77	2	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9370	0.9370	0.9370	0.9500	0.9370	0.9370	0.9370	0.9370	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	234	1	0	1	4	21	1	0
Total Analysis Volume [veh/h]	0	0	0	11	935	2	0	5	15	82	2	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.05	0.37	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.81	17.02	30.74	28.51	0.00
Movement LOS				A	A	A		C	C	D	D	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21	1.66	1.66	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.27	5.27	41.53	41.53	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			17.72			30.69		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	2.79											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	2	386	64	0	0	0	0	5	0	0	2	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	386	64	0	0	0	0	5	0	0	2	5
Peak Hour Factor	0.9370	0.9370	0.9370	0.9500	0.9500	0.9500	0.9370	0.9370	0.9500	0.9500	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	103	17	0	0	0	0	1	0	0	1	1
Total Analysis Volume [veh/h]	2	412	68	0	0	0	0	5	0	0	2	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	12.10	12.54	0.00	0.00	11.90	10.70
Movement LOS	A	A	A				B	B			B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.78	0.00	0.00	0.88	0.88
d_A, Approach Delay [s/veh]	0.00			0.00			12.54			11.04		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.28											
Intersection LOS	B											

Desert Hot Springs General Plan Update

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Scenario 1 Existing
4/24/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	SB Left	0.717	17.0	B
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.389	8.4	A
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.270	11.1	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.678	15.9	C
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.000	17.5	C
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	1.035	37.1	E
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.376	16.5	B
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.214	9.5	A
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.393	11.9	B
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	NB Right	0.507	11.0	B
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.583	14.0	B
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.347	9.8	A
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.463	19.6	B
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.639	21.0	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	SB Left	0.814	47.7	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.755	21.9	C
19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	WB Thru	0.000	515.5	F

20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.698	6.8	A
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.456	25.5	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.654	23.7	C
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	WB Right	0.853	22.5	C
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Thru	0.608	13.7	B
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Left	0.176	17.1	C
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.000	19.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.717

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	759	6	171	615	1	0	0	0	2	1	346
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	759	6	171	615	1	0	0	0	2	1	346
Peak Hour Factor	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170	0.9170
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	207	2	47	168	0	0	0	0	1	0	94
Total Analysis Volume [veh/h]	0	828	7	186	671	1	0	0	0	2	1	377
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	29	29	0	0	20	0	0	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	24	24	8	32	32	16	16	16
g / C, Green / Cycle	0.00	0.40	0.40	0.13	0.54	0.54	0.26	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.00	0.23	0.00	0.10	0.19	0.00	0.00	0.00	0.24
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1576	1589
c, Capacity [veh/h]	3	1427	637	242	1903	849	554	516	420
d1, Uniform Delay [s]	0.00	14.08	10.85	25.09	8.04	6.53	0.00	16.31	21.35
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	1.73	0.03	5.12	0.51	0.00	0.00	0.00	7.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.58	0.01	0.77	0.35	0.00	0.00	0.01	0.90
d, Delay for Lane Group [s/veh]	0.00	15.81	10.89	30.22	8.55	6.53	0.00	16.32	28.40
Lane Group LOS	A	B	B	C	A	A	A	B	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	3.31	0.04	2.51	1.68	0.00	0.00	0.03	4.91
50th-Percentile Queue Length [ft/ln]	0.00	82.78	1.11	62.70	41.92	0.11	0.00	0.64	122.76
95th-Percentile Queue Length [veh/ln]	0.00	5.96	0.08	4.51	3.02	0.01	0.00	0.05	8.54
95th-Percentile Queue Length [ft/ln]	0.00	149.00	1.99	112.86	75.45	0.19	0.00	1.15	213.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	15.81	10.89	30.22	8.55	6.53	0.00	0.00	0.00	16.32	16.32	28.40
Movement LOS	A	B	B	C	A	A	A	A	A	B	B	C
d_A, Approach Delay [s/veh]	15.77			13.24			0.00			28.31		
Approach LOS	B			B			A			C		
d_I, Intersection Delay [s/veh]	17.02											
Intersection LOS	B											
Intersection V/C	0.717											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	833	533	533
d_b, Bicycle Delay [s]	23.41	10.21	16.13	16.13
I_b,int, Bicycle LOS Score for Intersection	2.248	2.267	1.560	2.187
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.389

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	7	858	100	8	655	2	2	4	14	62	4	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	858	100	8	655	2	2	4	14	62	4	28
Peak Hour Factor	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080	0.9080
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	236	28	2	180	1	1	1	4	17	1	8
Total Analysis Volume [veh/h]	8	945	110	9	721	2	2	4	15	68	4	31
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	12	57	0	11	56	0	0	11	0	0	11	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	63	63	1	63	63	3	3	7	7
g / C, Green / Cycle	0.01	0.70	0.70	0.02	0.70	0.70	0.03	0.03	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.00	0.27	0.07	0.01	0.20	0.00	0.00	0.01	0.04	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1839	1589	1786	1589
c, Capacity [veh/h]	28	2493	1113	30	2498	1115	60	52	130	116
d1, Uniform Delay [s]	43.90	5.52	4.36	43.78	5.03	4.02	42.34	42.61	40.38	39.52
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.66	0.44	0.18	5.29	0.29	0.00	0.72	3.05	3.63	1.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.38	0.10	0.30	0.29	0.00	0.10	0.29	0.55	0.27
d, Delay for Lane Group [s/veh]	49.56	5.96	4.54	49.08	5.33	4.02	43.07	45.66	44.01	40.74
Lane Group LOS	D	A	A	D	A	A	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.21	2.08	0.41	0.23	1.44	0.01	0.14	0.37	1.57	0.65
50th-Percentile Queue Length [ft/ln]	5.14	51.96	10.22	5.67	35.92	0.17	3.51	9.17	39.28	16.15
95th-Percentile Queue Length [veh/ln]	0.37	3.74	0.74	0.41	2.59	0.01	0.25	0.66	2.83	1.16
95th-Percentile Queue Length [ft/ln]	9.25	93.52	18.39	10.21	64.66	0.31	6.32	16.51	70.70	29.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.56	5.96	4.54	49.08	5.33	4.02	43.07	43.07	45.66	44.01	44.01	40.74
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	6.14			5.86			44.92			43.03		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	8.44											
Intersection LOS	A											
Intersection V/C	0.389											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1178	1156	156	156
d_b, Bicycle Delay [s]	7.61	8.02	38.27	38.27
I_b,int, Bicycle LOS Score for Intersection	2.437	2.164	1.594	1.730
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.270

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	247	162	56	122	81	74
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	247	162	56	122	81	74
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	42	14	31	21	19
Total Analysis Volume [veh/h]	254	167	58	126	83	76
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	33	0	12	45	15	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	37	37	4	46	7	7
g / C, Green / Cycle	0.62	0.62	0.07	0.76	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.14	0.11	0.03	0.07	0.05	0.05
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	1152	979	133	1416	196	175
d1, Uniform Delay [s]	5.13	4.96	26.63	1.90	24.99	25.02
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	0.38	2.25	0.12	1.45	1.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.17	0.44	0.09	0.42	0.43
d, Delay for Lane Group [s/veh]	5.58	5.33	28.88	2.03	26.44	26.72
Lane Group LOS	A	A	C	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.84	0.54	0.77	0.05	1.04	0.97
50th-Percentile Queue Length [ft/ln]	20.89	13.59	19.23	1.30	26.07	24.16
95th-Percentile Queue Length [veh/ln]	1.50	0.98	1.38	0.09	1.88	1.74
95th-Percentile Queue Length [ft/ln]	37.60	24.46	34.61	2.35	46.93	43.48

Movement, Approach, & Intersection Results

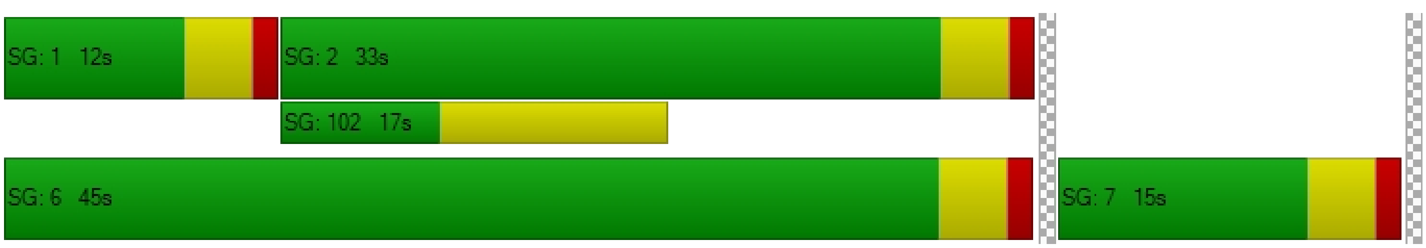
d_M, Delay for Movement [s/veh]	5.58	5.33	28.88	2.03	26.44	26.72
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	5.48		10.49		26.58	
Approach LOS	A		B		C	
d_I, Intersection Delay [s/veh]	11.08					
Intersection LOS	B					
Intersection V/C	0.270					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.265
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.827	4.436	4.132
Bicycle LOS	E	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.678

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	31	335	118	36	155	12	33	73	20	90	76	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	335	118	36	155	12	33	73	20	90	76	43
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	90	32	10	42	3	9	20	5	24	20	12
Total Analysis Volume [veh/h]	33	359	127	39	166	13	35	78	21	97	82	46
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	579	658	542	492	559	525
Degree of Utilization, x	0.68	0.19	0.40	0.23	0.04	0.43

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.16	0.71	1.93	0.88	0.12	2.13
95th-Percentile Queue Length [ft]	129.02	17.75	48.16	21.95	2.92	53.33
Approach Delay [s/veh]	18.17		14.04	11.75		14.93
Approach LOS	C		B	B		B
Intersection Delay [s/veh]	15.90					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┤┌			┤┌			┼			┼		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	525	0	0	255	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	525	0	0	255	0	0	0	0	0	0	0
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	140	0	0	68	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	560	0	0	272	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.79	0.00	0.00	8.56	0.00	0.00	17.48	16.81	9.70	17.48	16.81	11.82
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			14.66			15.37		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	0.00											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	37.1
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.035

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┤┌			┤┌			┤┌			┤┌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	22	476	294	27	232	7	7	95	15	176	70	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	476	294	27	232	7	7	95	15	176	70	49
Peak Hour Factor	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210	0.9210
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	129	80	7	63	2	2	26	4	48	19	13
Total Analysis Volume [veh/h]	24	517	319	29	252	8	8	103	16	191	76	53
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	541	585	481	533	439	481	450	517
Degree of Utilization, x	1.03	0.55	0.58	0.01	0.25	0.03	0.59	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	15.43	3.28	3.68	0.05	0.99	0.10	3.76	0.34
95th-Percentile Queue Length [ft]	385.78	81.90	91.92	1.14	24.79	2.58	93.95	8.52
Approach Delay [s/veh]	52.88		19.89		13.25		19.84	
Approach LOS	F		C		B		C	
Intersection Delay [s/veh]	37.13							
Intersection LOS	E							

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.376

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	42	586	6	5	410	18	22	1	67	218	27	238
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	586	6	5	410	18	22	1	67	218	27	238
Peak Hour Factor	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620	0.9620
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	152	2	1	107	5	6	0	17	57	7	62
Total Analysis Volume [veh/h]	44	609	6	5	426	19	23	1	70	227	28	247
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	15	0	18	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	36	36	1	33	33	2	5	5	7	10	10
g / C, Green / Cycle	0.06	0.56	0.56	0.01	0.51	0.51	0.04	0.08	0.08	0.11	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.02	0.17	0.00	0.00	0.08	0.08	0.01	0.00	0.04	0.07	0.09	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1830	1781	1870	1589	3459	1639	1589
c, Capacity [veh/h]	109	1982	885	20	1804	927	69	149	127	371	242	235
d1, Uniform Delay [s]	29.48	7.74	6.44	32.00	8.66	8.67	30.54	27.66	28.92	27.84	25.90	25.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.37	0.40	0.01	6.30	0.19	0.38	2.76	0.02	3.72	1.64	2.15	2.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.31	0.01	0.25	0.16	0.16	0.33	0.01	0.55	0.61	0.58	0.58
d, Delay for Lane Group [s/veh]	31.85	8.14	6.45	38.30	8.85	9.05	33.30	27.68	32.64	29.48	28.05	28.12
Lane Group LOS	C	A	A	D	A	A	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.66	1.57	0.03	0.10	0.83	0.91	0.39	0.01	1.14	1.70	2.06	2.00
50th-Percentile Queue Length [ft/ln]	16.44	39.18	0.68	2.62	20.64	22.65	9.79	0.36	28.51	42.45	51.46	50.02
95th-Percentile Queue Length [veh/ln]	1.18	2.82	0.05	0.19	1.49	1.63	0.70	0.03	2.05	3.06	3.71	3.60
95th-Percentile Queue Length [ft/ln]	29.60	70.52	1.23	4.72	37.15	40.76	17.62	0.65	51.31	76.40	92.63	90.04

Movement, Approach, & Intersection Results

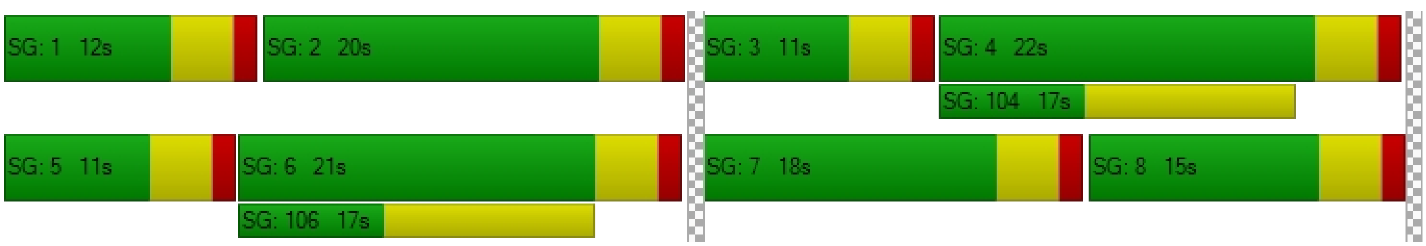
d_M, Delay for Movement [s/veh]	31.85	8.14	6.45	38.30	8.91	9.05	33.30	27.68	32.64	29.48	28.05	28.09
Movement LOS	C	A	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.71			9.25			32.75			28.72		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	16.45											
Intersection LOS	B											
Intersection V/C	0.376											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.831	2.158	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	492	523	338	554
d_b, Bicycle Delay [s]	18.47	17.72	22.43	16.99
I_b,int, Bicycle LOS Score for Intersection	2.103	1.807	1.715	2.388
Bicycle LOS	B	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.214

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	87	67	63	11	61	11	23	88	60	44	88	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	87	67	63	11	61	11	23	88	60	44	88	22
Peak Hour Factor	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030	0.9030
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	19	17	3	17	3	6	24	17	12	24	6
Total Analysis Volume [veh/h]	96	74	70	12	68	12	25	97	66	49	97	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	582	672	560	605	685	565	613	696	564	611	694
Degree of Utilization, x	0.16	0.21	0.02	0.11	0.02	0.04	0.16	0.09	0.09	0.16	0.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.59	0.81	0.07	0.38	0.05	0.14	0.56	0.31	0.28	0.56	0.11
95th-Percentile Queue Length [ft]	14.68	20.21	1.64	9.43	1.34	3.46	13.97	7.83	7.11	14.02	2.68
Approach Delay [s/veh]	9.75		9.20			9.19			9.47		
Approach LOS	A		A			A			A		
Intersection Delay [s/veh]	9.45										
Intersection LOS	A										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	52	123	55	57	95	14	23	171	27	38	174	77
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	123	55	57	95	14	23	171	27	38	174	77
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	33	15	15	25	4	6	45	7	10	46	20
Total Analysis Volume [veh/h]	55	131	59	61	101	15	24	182	29	40	185	82
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	634	607	567	645	573	657
Degree of Utilization, x	0.39	0.29	0.36	0.04	0.39	0.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.82	1.21	1.65	0.14	1.86	0.43
95th-Percentile Queue Length [ft]	45.54	30.17	41.33	3.52	46.54	10.64
Approach Delay [s/veh]	12.21	11.35	12.13		11.92	
Approach LOS	B	B	B		B	
Intersection Delay [s/veh]	11.94					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	14	167	203	45	108	3	0	11	4	114	9	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	167	203	45	108	3	0	11	4	114	9	69
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	44	54	12	29	1	0	3	1	30	2	18
Total Analysis Volume [veh/h]	15	177	215	48	115	3	0	12	4	121	10	73
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	803	704	638	563	691
Degree of Utilization, x	0.51	0.24	0.03	0.23	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.92	0.91	0.08	0.89	0.35
95th-Percentile Queue Length [ft]	72.90	22.83	1.93	22.36	8.83
Approach Delay [s/veh]	12.01	9.68	8.79	10.13	
Approach LOS	B	A	A	B	
Intersection Delay [s/veh]	10.98				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	1	104	0	131	226	243	0	1	185	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	104	0	131	226	243	0	1	185	157
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	28	0	35	61	65	0	0	50	42
Total Analysis Volume [veh/h]	0	0	1	112	0	141	243	262	0	1	199	169
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	586	620	569	619	551	631
Degree of Utilization, x	0.00	0.41	0.43	0.42	0.00	0.58

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	1.99	2.13	2.11	0.01	3.77
95th-Percentile Queue Length [ft]	0.13	49.64	53.15	52.64	0.14	94.14
Approach Delay [s/veh]	9.16	12.77	13.18		16.05	
Approach LOS	A	B	B		C	
Intersection Delay [s/veh]	14.02					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.347

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	213	17	52	1	6	3	2	29	150	35	20	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	213	17	52	1	6	3	2	29	150	35	20	1
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	4	13	0	2	1	1	7	38	9	5	0
Total Analysis Volume [veh/h]	217	17	53	1	6	3	2	30	153	36	20	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	625	685	790	607	699	648	745	593	713
Degree of Utilization, x	0.35	0.02	0.07	0.01	0.00	0.05	0.21	0.09	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.55	0.08	0.22	0.03	0.01	0.16	0.77	0.31	0.00
95th-Percentile Queue Length [ft]	38.71	1.91	5.38	0.87	0.32	3.89	19.17	7.78	0.11
Approach Delay [s/veh]	10.57			8.45		8.73		9.37	
Approach LOS	B			A		A		A	
Intersection Delay [s/veh]	9.77								
Intersection LOS	A								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	154	546	60	22	335	37	42	101	161	68	119	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	154	546	60	22	335	37	42	101	161	68	119	39
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	146	16	6	89	10	11	27	43	18	32	10
Total Analysis Volume [veh/h]	164	582	64	23	357	39	45	108	172	72	127	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	32	32	2	27	27	4	9	9	5	10	10
g / C, Green / Cycle	0.12	0.49	0.49	0.04	0.42	0.42	0.06	0.14	0.14	0.08	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.09	0.18	0.18	0.01	0.11	0.11	0.03	0.06	0.11	0.04	0.05	0.05
s, saturation flow rate [veh/h]	1781	1870	1806	1781	1870	1806	1781	1870	1589	1781	1870	1716
c, Capacity [veh/h]	208	920	889	69	775	748	111	268	228	143	302	277
d1, Uniform Delay [s]	28.04	10.21	10.21	30.54	12.54	12.56	29.44	25.43	26.87	28.76	24.06	24.11
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.52	1.08	1.12	2.76	0.81	0.85	2.37	0.98	5.05	2.70	0.51	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.36	0.36	0.33	0.26	0.26	0.41	0.40	0.76	0.50	0.29	0.30
d, Delay for Lane Group [s/veh]	34.56	11.29	11.33	33.30	13.35	13.41	31.81	26.40	31.91	31.46	24.57	24.71
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.70	2.68	2.60	0.39	1.84	1.81	0.71	1.49	2.71	1.12	1.13	1.10
50th-Percentile Queue Length [ft/ln]	67.62	67.04	65.05	9.66	46.11	45.26	17.84	37.36	67.79	28.10	28.32	27.44
95th-Percentile Queue Length [veh/ln]	4.87	4.83	4.68	0.70	3.32	3.26	1.28	2.69	4.88	2.02	2.04	1.98
95th-Percentile Queue Length [ft/ln]	121.72	120.68	117.10	17.38	83.00	81.47	32.12	67.25	122.03	50.57	50.98	49.39

Movement, Approach, & Intersection Results

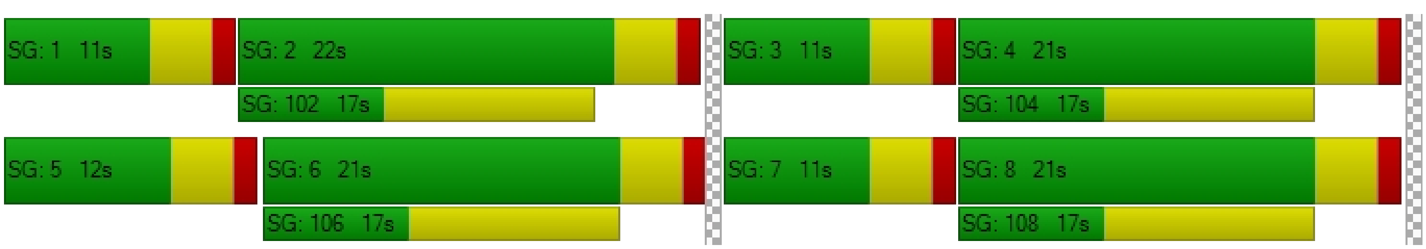
d_M, Delay for Movement [s/veh]	34.56	11.31	11.33	33.30	13.37	13.41	31.81	26.40	31.91	31.46	24.62	24.71
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.02			14.47			30.07			26.68		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.63											
Intersection LOS	B											
Intersection V/C	0.463											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.603	2.529	2.431	2.381
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.228	1.905	1.828	1.758
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐‖├			┐‖├			┐‖├			┐|┌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	84	880	69	112	541	26	40	101	76	170	126	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	880	69	112	541	26	40	101	76	170	126	97
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	227	18	29	139	7	10	26	20	44	32	25
Total Analysis Volume [veh/h]	87	906	71	115	557	27	41	104	78	175	130	100
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	28	28	6	29	29	4	7	7	8	11	11
g / C, Green / Cycle	0.09	0.43	0.43	0.10	0.44	0.44	0.06	0.10	0.10	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.05	0.26	0.26	0.06	0.16	0.16	0.02	0.05	0.05	0.10	0.07	0.06
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1840	1781	1870	1618	1781	1870	1589
c, Capacity [veh/h]	156	807	786	171	823	810	105	195	169	219	316	268
d1, Uniform Delay [s]	28.58	14.35	14.35	28.52	12.14	12.15	29.60	27.56	27.69	27.84	24.24	24.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.12	3.47	3.56	4.54	1.21	1.23	2.38	1.83	2.49	6.56	0.86	0.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.61	0.61	0.67	0.36	0.36	0.39	0.48	0.52	0.80	0.41	0.37
d, Delay for Lane Group [s/veh]	31.71	17.81	17.91	33.05	13.36	13.38	31.97	29.39	30.17	34.39	25.10	24.93
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.36	5.59	5.47	1.85	2.72	2.68	0.64	1.35	1.30	2.83	1.71	1.31
50th-Percentile Queue Length [ft/ln]	34.06	139.68	136.67	46.15	67.95	67.07	15.88	33.69	32.41	70.84	42.76	32.82
95th-Percentile Queue Length [veh/ln]	2.45	9.46	9.30	3.32	4.89	4.83	1.14	2.43	2.33	5.10	3.08	2.36
95th-Percentile Queue Length [ft/ln]	61.31	236.59	232.53	83.06	122.32	120.73	28.58	60.65	58.34	127.52	76.98	59.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.71	17.86	17.91	33.05	13.37	13.38	31.97	29.46	30.17	34.39	25.10	24.93
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	18.99			16.61			30.17			29.07		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.05											
Intersection LOS	C											
Intersection V/C	0.639											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.790	2.679	2.284	2.463
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.437	2.136	1.744	2.228
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	47.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.814

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	180	150	103	656	21	98	161	228	248	129	93	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	150	103	656	21	98	161	228	248	129	93	45
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	39	27	170	5	25	42	59	64	33	24	12
Total Analysis Volume [veh/h]	186	155	107	678	22	101	166	236	256	133	96	47
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	21	0	43	21	0	15	21	0	15	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	18	18	39	44	44	11	18	18	9	16	16
g / C, Green / Cycle	0.13	0.18	0.18	0.39	0.44	0.44	0.11	0.18	0.18	0.09	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.10	0.04	0.07	0.38	0.01	0.06	0.09	0.13	0.16	0.07	0.05	0.03
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	223	641	286	694	1581	706	196	334	284	163	300	255
d1, Uniform Delay [s]	42.71	35.17	36.07	30.08	15.55	16.50	43.68	38.60	40.21	44.60	37.18	36.34
k, delay calibration	0.11	0.50	0.50	0.44	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.82	0.89	3.71	27.05	0.02	0.43	9.58	2.74	10.35	9.41	0.61	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.24	0.37	0.98	0.01	0.14	0.85	0.71	0.90	0.81	0.32	0.18
d, Delay for Lane Group [s/veh]	50.53	36.07	39.78	57.13	15.57	16.93	53.26	41.34	50.55	54.01	37.78	36.69
Lane Group LOS	D	D	D	E	B	B	D	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.84	1.66	2.53	20.37	0.14	1.41	4.44	5.51	6.76	3.61	2.10	1.00
50th-Percentile Queue Length [ft/ln]	120.98	41.41	63.18	509.20	3.50	35.35	110.93	137.80	168.93	90.19	52.40	25.08
95th-Percentile Queue Length [veh/ln]	8.45	2.98	4.55	27.77	0.25	2.55	7.89	9.36	11.02	6.49	3.77	1.81
95th-Percentile Queue Length [ft/ln]	211.17	74.53	113.73	694.23	6.30	63.63	197.30	234.06	275.51	162.34	94.32	45.14

Movement, Approach, & Intersection Results

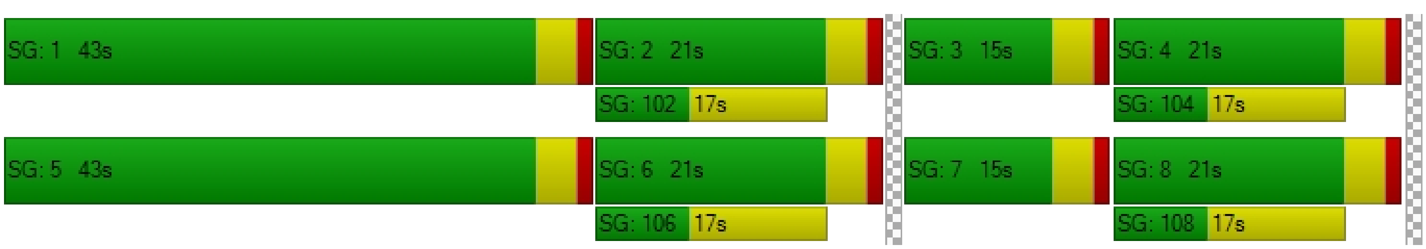
d_M, Delay for Movement [s/veh]	50.53	36.07	39.78	57.13	15.57	16.93	53.26	41.34	50.55	54.01	37.78	36.69
Movement LOS	D	D	D	E	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	42.96			50.92			47.93			45.42		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	47.69											
Intersection LOS	D											
Intersection V/C	0.814											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	2.758	2.679	2.575	2.505
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	340	340	340	340
d_b, Bicycle Delay [s]	34.45	34.45	34.45	34.45
I_b,int, Bicycle LOS Score for Intersection	1.929	2.220	2.645	2.015
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	144	1239	199	73	695	82	129	146	110	129	103	118
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	1239	199	73	695	82	129	146	110	129	103	118
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	327	53	19	184	22	34	39	29	34	27	31
Total Analysis Volume [veh/h]	152	1310	210	77	735	87	136	154	116	136	109	125
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	30	30	5	28	28	6	8	8	6	8	8
g / C, Green / Cycle	0.11	0.46	0.46	0.08	0.43	0.43	0.10	0.12	0.12	0.10	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.09	0.37	0.13	0.04	0.21	0.05	0.08	0.08	0.07	0.08	0.06	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	195	1616	722	148	1522	679	179	220	187	179	220	187
d1, Uniform Delay [s]	28.29	15.39	11.21	28.68	13.48	11.32	28.60	27.70	27.42	28.60	26.99	27.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.59	4.52	1.02	2.82	1.10	0.39	6.55	4.02	3.34	6.55	1.73	4.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.81	0.29	0.52	0.48	0.13	0.76	0.70	0.62	0.76	0.50	0.67
d, Delay for Lane Group [s/veh]	34.89	19.91	12.23	31.51	14.58	11.71	35.15	31.71	30.76	35.15	28.71	31.68
Lane Group LOS	C	B	B	C	B	B	D	C	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.33	6.81	1.56	1.13	3.15	0.65	2.13	2.25	1.67	2.13	1.49	1.83
50th-Percentile Queue Length [ft/ln]	58.31	170.28	38.95	28.23	78.73	16.33	53.31	56.30	41.74	53.31	37.24	45.87
95th-Percentile Queue Length [veh/ln]	4.20	11.09	2.80	2.03	5.67	1.18	3.84	4.05	3.01	3.84	2.68	3.30
95th-Percentile Queue Length [ft/ln]	104.95	277.29	70.11	50.81	141.72	29.39	95.95	101.35	75.14	95.95	67.03	82.56

Movement, Approach, & Intersection Results

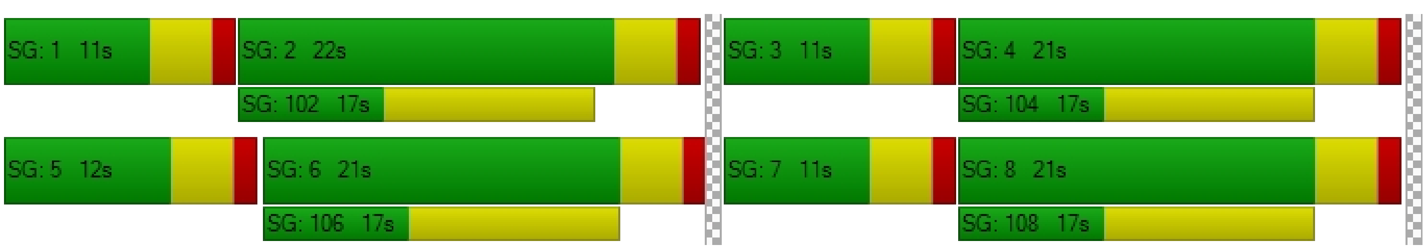
d_M, Delay for Movement [s/veh]	34.89	19.91	12.23	31.51	14.58	11.71	35.15	31.71	30.76	35.15	28.71	31.68
Movement LOS	C	B	B	C	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	20.31			15.75			32.59			32.08		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	21.88											
Intersection LOS	C											
Intersection V/C	0.755											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	3.317	3.207	2.450	2.476
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.939	2.301	2.230	2.170
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	515.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	4	1570	74	14	889	5	2	0	0	24	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	1570	74	14	889	5	2	0	0	24	0	10
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	432	20	4	244	1	1	0	0	7	0	3
Total Analysis Volume [veh/h]	4	1727	81	15	978	6	2	0	0	26	0	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.02	0.00	0.04	0.01	0.00	0.05	0.00	0.00	1.20	0.00	0.04
d_M, Delay for Movement [s/veh]	10.19	0.00	0.00	16.20	0.00	0.00	98.69	226.78	16.45	487.44	515.51	333.67
Movement LOS	B	A	A	C	A	A	F	F	C	F	F	F
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.14	0.00	0.00	0.15	0.15	0.15	4.19	4.19	4.19
95th-Percentile Queue Length [ft/ln]	0.43	0.00	0.00	3.49	0.00	0.00	3.79	3.79	3.79	104.76	104.76	104.76
d_A, Approach Delay [s/veh]	0.02			0.24			98.69			441.72		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	5.90											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	1	1618	36	20	894	0	0	1	1	35	1	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	1618	36	20	894	0	0	1	1	35	1	29
Peak Hour Factor	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190	0.8190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	494	11	6	273	0	0	0	0	11	0	9
Total Analysis Volume [veh/h]	1	1976	44	24	1092	0	0	1	1	43	1	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	12	73	0	11	72	0	0	21	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	83	83	4	86	86	6	6
g / C, Green / Cycle	0.00	0.79	0.79	0.03	0.82	0.82	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.00	0.55	0.03	0.01	0.31	0.00	0.00	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1218	1583
c, Capacity [veh/h]	4	2811	1255	61	2923	1305	110	152
d1, Uniform Delay [s]	52.27	5.23	2.39	49.65	2.43	0.00	46.22	48.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	24.31	1.50	0.05	4.14	0.37	0.00	0.07	2.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.70	0.04	0.40	0.37	0.00	0.02	0.52
d, Delay for Lane Group [s/veh]	76.58	6.73	2.45	53.79	2.79	0.00	46.28	51.19
Lane Group LOS	E	A	A	D	A	A	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.05	4.74	0.10	0.65	0.90	0.00	0.05	2.05
50th-Percentile Queue Length [ft/ln]	1.36	118.60	2.57	16.30	22.45	0.00	1.22	51.35
95th-Percentile Queue Length [veh/ln]	0.10	8.32	0.19	1.17	1.62	0.00	0.09	3.70
95th-Percentile Queue Length [ft/ln]	2.46	207.90	4.63	29.34	40.41	0.00	2.19	92.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	76.58	6.73	2.45	53.79	2.79	0.00	46.28	46.28	46.28	51.19	51.19	51.19
Movement LOS	E	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	6.67			3.89			46.28			51.19		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	6.83											
Intersection LOS	A											
Intersection V/C	0.698											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.472	1.726	1.854
Crosswalk LOS	F	C	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1314	1295	324	324
d_b, Bicycle Delay [s]	6.17	6.52	36.88	36.88
I_b,int, Bicycle LOS Score for Intersection	3.227	2.480	1.563	1.690
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	162	89	54	24	34	13	9	213	121	33	192	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	89	54	24	34	13	9	213	121	33	192	39
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	24	15	6	9	4	2	57	33	9	52	11
Total Analysis Volume [veh/h]	175	96	58	26	37	14	10	230	131	36	207	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	28	3	22	22	1	15	3	18
g / C, Green / Cycle	0.12	0.42	0.04	0.34	0.34	0.02	0.24	0.05	0.27
(v / s)_i Volume / Saturation Flow Rate	0.10	0.09	0.01	0.02	0.01	0.01	0.21	0.02	0.14
s, saturation flow rate [veh/h]	1781	1753	1781	1870	1589	1781	1757	1781	1816
c, Capacity [veh/h]	219	741	76	640	544	35	415	96	490
d1, Uniform Delay [s]	27.84	11.94	30.35	14.42	14.26	31.53	23.98	29.82	20.16
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.56	0.64	2.63	0.17	0.09	4.25	5.75	2.41	0.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.21	0.34	0.06	0.03	0.28	0.87	0.38	0.51
d, Delay for Lane Group [s/veh]	34.39	12.58	32.98	14.59	14.34	35.78	29.73	32.23	20.98
Lane Group LOS	C	B	C	B	B	D	C	C	C
Critical Lane Group	Yes	No	No	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.97	1.44	0.43	0.36	0.14	0.19	5.43	0.57	2.96
50th-Percentile Queue Length [ft/ln]	74.14	36.04	10.78	9.04	3.43	4.67	135.66	14.29	74.01
95th-Percentile Queue Length [veh/ln]	5.34	2.60	0.78	0.65	0.25	0.34	9.25	1.03	5.33
95th-Percentile Queue Length [ft/ln]	133.45	64.88	19.40	16.28	6.17	8.41	231.16	25.71	133.21

Movement, Approach, & Intersection Results

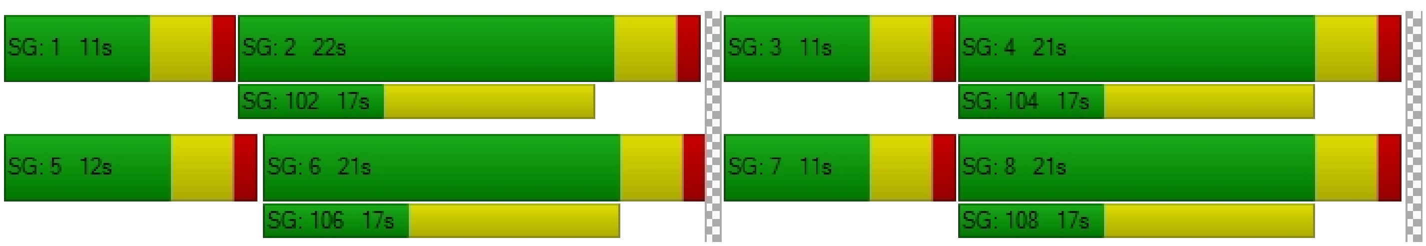
d_M, Delay for Movement [s/veh]	34.39	12.58	12.58	32.98	14.59	14.34	35.78	29.73	29.73	32.23	20.98	20.98
Movement LOS	C	B	B	C	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	24.18			20.75			29.89			22.40		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.45											
Intersection LOS	C											
Intersection V/C	0.456											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.067	2.177	2.362	2.182
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.102	1.687	2.172	2.030
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	23.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┑╞			┑╞			┑╞			┑╞		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	118	260	210	18	150	48	75	181	59	88	144	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	118	260	210	18	150	48	75	181	59	88	144	11
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	69	56	5	40	13	20	48	16	23	38	3
Total Analysis Volume [veh/h]	125	276	223	19	159	51	80	192	63	93	153	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	30	2	26	5	11	6	12
g / C, Green / Cycle	0.10	0.46	0.03	0.40	0.08	0.17	0.09	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.29	0.01	0.12	0.04	0.14	0.05	0.09
s, saturation flow rate [veh/h]	1781	1733	1781	1793	1781	1792	1781	1846
c, Capacity [veh/h]	175	795	60	706	150	310	160	329
d1, Uniform Delay [s]	28.54	13.44	30.81	13.59	28.65	26.01	28.54	24.19
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.33	3.74	3.00	1.08	2.90	5.39	3.35	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.63	0.32	0.30	0.53	0.82	0.58	0.50
d, Delay for Lane Group [s/veh]	33.87	17.18	33.81	14.66	31.55	31.40	31.89	25.37
Lane Group LOS	C	B	C	B	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.91	4.85	0.31	1.86	1.17	3.72	1.37	2.07
50th-Percentile Queue Length [ft/ln]	47.85	121.17	7.72	46.38	29.34	93.02	34.30	51.87
95th-Percentile Queue Length [veh/ln]	3.45	8.46	0.56	3.34	2.11	6.70	2.47	3.73
95th-Percentile Queue Length [ft/ln]	86.14	211.44	13.90	83.49	52.81	167.44	61.73	93.36

Movement, Approach, & Intersection Results

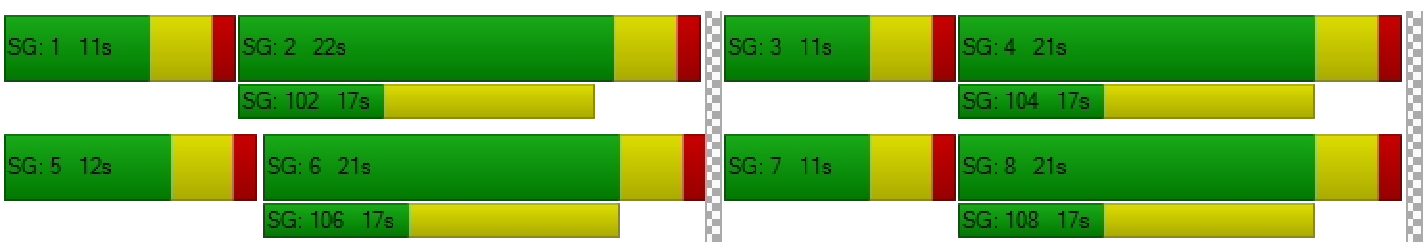
d_M, Delay for Movement [s/veh]	33.87	17.18	17.18	33.81	14.66	14.66	31.55	31.40	31.40	31.89	25.37	25.37
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	20.52			16.25			31.44			27.72		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	23.66											
Intersection LOS	C											
Intersection V/C	0.654											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.482	2.278	2.318	2.335
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.589	1.937	2.112	1.985
Bicycle LOS	B	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.853

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	275	26	24	42	61	581
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	275	26	24	42	61	581
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	7	6	11	16	155
Total Analysis Volume [veh/h]	293	28	26	45	65	619
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	617	596	635	726
Degree of Utilization, x	0.52	0.12	0.10	0.85

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.01	0.40	0.34	9.95
95th-Percentile Queue Length [ft]	75.35	10.09	8.51	248.79
Approach Delay [s/veh]	15.01	9.86	27.36	
Approach LOS	C	A	D	
Intersection Delay [s/veh]	22.52			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.608

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	9	6	6	117	3	23	31	370	4	2	210	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	6	6	117	3	23	31	370	4	2	210	80
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	32	1	6	8	100	1	1	57	22
Total Analysis Volume [veh/h]	10	6	6	126	3	25	33	399	4	2	226	86
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	587	607	606	662	591	668
Degree of Utilization, x	0.04	0.25	0.05	0.61	0.00	0.47

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.12	1.00	0.17	4.13	0.01	2.49
95th-Percentile Queue Length [ft]	2.91	25.05	4.31	103.30	0.25	62.19
Approach Delay [s/veh]	9.37	10.93	15.66		12.69	
Approach LOS	A	B	C		B	
Intersection Delay [s/veh]	13.72					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	10	609	0	0	3	4	60	4	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	10	609	0	0	3	4	60	4	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9380	0.9380	0.9380	0.9500	0.9380	0.9380	0.9380	0.9380	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	162	0	0	1	1	16	1	0
Total Analysis Volume [veh/h]	0	0	0	11	649	0	0	3	4	64	4	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.18	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.68	12.81	17.14	16.78	0.00
Movement LOS				A	A	A		B	B	C	C	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.68	0.68	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	16.89	16.89	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			13.61			17.12		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	1.71											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	780	90	0	0	0	0	3	0	0	4	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	780	90	0	0	0	0	3	0	0	4	15
Peak Hour Factor	0.9380	0.9380	0.9380	0.9500	0.9500	0.9500	0.9380	0.9380	0.9500	0.9500	0.9380	0.9380
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	208	24	0	0	0	0	1	0	0	1	4
Total Analysis Volume [veh/h]	9	832	96	0	0	0	0	3	0	0	4	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	19.82	18.93	0.00	0.00	17.71	15.37
Movement LOS	A	A	A				C	C			C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.18	0.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.00	0.00	4.50	4.50
d_A, Approach Delay [s/veh]	0.00			0.00			18.93			15.84		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.39											
Intersection LOS	C											

CURRENT GENERAL PLAN BUILDOUT

Desert Hot Springs General Plan Update

Vistro File: G:\...\EGP AM.vistro

Report File: G:\...\Existing GP AM.pdf

Scenario 1 Existing General Plan

5/31/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.881	22.3	C
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	1.078	83.8	F
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.496	18.3	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.563	139.7	F
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.269	48.4	E
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Thru	2.863	486.4	F
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.827	30.4	C
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	WB Left	0.566	15.2	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.631	149.7	F
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	SB Thru	1.762	198.1	F
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Thru	2.276	345.4	F
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	SB Right	0.725	16.8	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.703	18.8	C
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.629	24.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.594	21.9	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Right	0.989	45.3	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Right	1.061	66.7	E

19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	EB Thru	28.493	10,000.0	F
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.941	26.0	C
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.687	28.5	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Right	1.099	87.0	F
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	SB Left	2.718	568.7	F
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.798	20.2	C
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Thru	5.175	10,000.0	F
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Thru	0.702	10,000.0	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.881

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	2	133	503	0	0	0	0	0	0	70
Total Analysis Volume [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	37	37	0	0	27	0	0	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	23	23	25	48	48	15	15	15
g / C, Green / Cycle	0.00	0.31	0.31	0.33	0.64	0.64	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.12	0.00	0.30	0.56	0.00	0.00	0.00	0.18
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1870	1589
c, Capacity [veh/h]	3	1099	491	585	2263	1010	428	428	323
d1, Uniform Delay [s]	0.00	20.44	18.03	24.17	11.46	0.00	23.85	0.00	28.92
k, delay calibration	0.11	0.50	0.50	0.22	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	1.06	0.05	10.90	5.69	0.00	0.00	0.00	6.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.39	0.01	0.91	0.89	0.00	0.00	0.00	0.86
d, Delay for Lane Group [s/veh]	0.00	21.50	18.08	35.07	17.15	0.00	23.86	0.00	35.78
Lane Group LOS	A	C	B	D	B	A	C	A	D
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	2.61	0.08	9.37	9.99	0.00	0.01	0.00	4.88
50th-Percentile Queue Length [ft/ln]	0.00	65.17	1.92	234.25	249.82	0.00	0.35	0.00	122.00
95th-Percentile Queue Length [veh/ln]	0.00	4.69	0.14	14.39	15.18	0.00	0.03	0.00	8.50
95th-Percentile Queue Length [ft/ln]	0.00	117.31	3.46	359.75	379.43	0.00	0.63	0.00	212.58

Movement, Approach, & Intersection Results

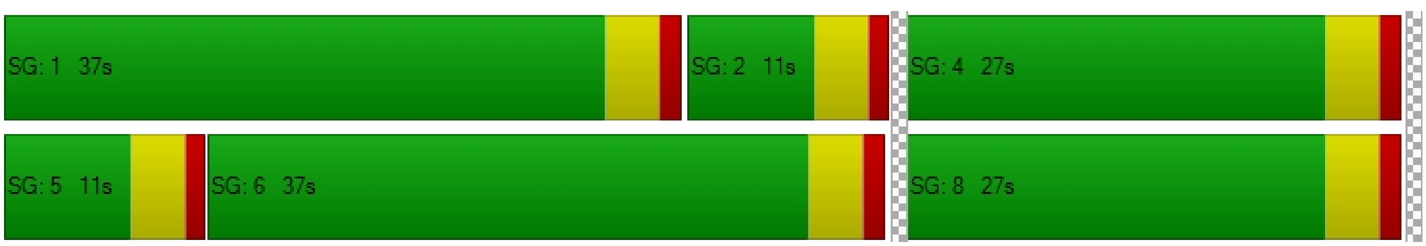
d_M, Delay for Movement [s/veh]	0.00	21.50	18.08	35.07	17.15	0.00	23.86	23.86	23.86	0.00	0.00	35.78
Movement LOS	A	C	B	D	B	A	C	C	C	A	A	D
d_A, Approach Delay [s/veh]	21.44			20.91			23.86			35.78		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	22.25											
Intersection LOS	C											
Intersection V/C	0.881											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	187	880	613	613
d_b, Bicycle Delay [s]	30.83	11.76	18.03	18.03
I_b,int, Bicycle LOS Score for Intersection	1.923	3.658	1.561	2.020
Bicycle LOS	A	D	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	83.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.078

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	129	34	77	606	1	0	4	3	103	4	23
Total Analysis Volume [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	67	67	0	0	11	0	0	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	50	50	23	71	71	4	4	27	27
g / C, Green / Cycle	0.02	0.41	0.41	0.19	0.59	0.59	0.04	0.04	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.09	0.17	0.68	0.00	0.01	0.01	0.24	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1864	1589	1784	1589
c, Capacity [veh/h]	31	1471	657	343	2093	935	68	58	401	358
d1, Uniform Delay [s]	58.28	24.18	22.61	47.38	24.73	10.21	56.24	56.18	46.53	38.30
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.42	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.79	0.66	0.71	8.72	76.67	0.01	1.77	1.76	60.10	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.35	0.21	0.90	1.16	0.00	0.24	0.21	1.07	0.26
d, Delay for Lane Group [s/veh]	64.07	24.84	23.33	56.10	101.41	10.22	58.01	57.94	106.62	38.68
Lane Group LOS	E	C	C	E	F	B	E	E	F	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.33	4.68	2.37	9.23	45.75	0.03	0.51	0.38	18.00	2.19
50th-Percentile Queue Length [ft/ln]	8.37	117.07	59.30	230.63	1143.63	0.73	12.64	9.55	449.98	54.83
95th-Percentile Queue Length [veh/ln]	0.60	8.23	4.27	14.21	63.85	0.05	0.91	0.69	25.88	3.95
95th-Percentile Queue Length [ft/ln]	15.06	205.79	106.74	355.16	1596.15	1.32	22.75	17.19	647.03	98.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.07	24.84	23.33	56.10	101.41	10.22	58.01	58.01	57.94	106.62	106.62	38.68
Movement LOS	E	C	C	E	F	B	E	E	E	F	F	D
d_A, Approach Delay [s/veh]	25.12			96.19			57.98			94.49		
Approach LOS	C			F			E			F		
d_I, Intersection Delay [s/veh]	83.77											
Intersection LOS	F											
Intersection V/C	1.078											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	1050	117	450
d_b, Bicycle Delay [s]	53.20	13.54	53.20	36.04
I_b,int, Bicycle LOS Score for Intersection	2.106	3.816	1.606	2.419
Bicycle LOS	B	D	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	140	168	222	274	296	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	140	168	222	274	296	140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	42	56	69	74	35
Total Analysis Volume [veh/h]	140	168	222	274	296	140
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	21	0	23	44	16	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	9	40	12	12
g / C, Green / Cycle	0.45	0.45	0.16	0.67	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.12	0.15	0.17	0.09
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	836	711	280	1254	350	312
d1, Uniform Delay [s]	9.94	10.28	24.41	3.82	23.31	21.31
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.78	5.05	0.40	5.68	1.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.24	0.79	0.22	0.85	0.45
d, Delay for Lane Group [s/veh]	10.37	11.06	29.47	4.22	28.99	22.32
Lane Group LOS	B	B	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.88	1.13	2.94	0.61	3.97	1.57
50th-Percentile Queue Length [ft/ln]	22.12	28.20	73.61	15.24	99.30	39.16
95th-Percentile Queue Length [veh/ln]	1.59	2.03	5.30	1.10	7.15	2.82
95th-Percentile Queue Length [ft/ln]	39.82	50.76	132.51	27.44	178.73	70.50

Movement, Approach, & Intersection Results

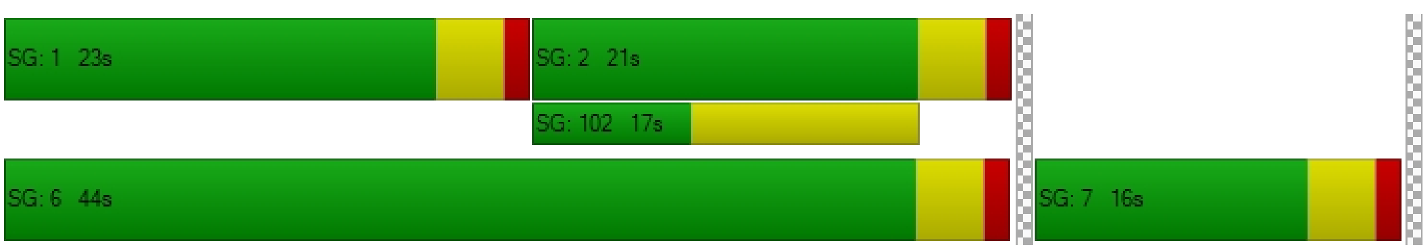
d_M, Delay for Movement [s/veh]	10.37	11.06	29.47	4.22	28.99	22.32
Movement LOS	B	B	C	A	C	C
d_A, Approach Delay [s/veh]	10.75		15.52		26.85	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	18.32					
Intersection LOS	B					
Intersection V/C	0.496					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.444
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.641	4.951	4.132
Bicycle LOS	E	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	139.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.563

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	65	33	15	107	26	13	43	59	61	46	4
Total Analysis Volume [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	393	419	590	368	401	445
Degree of Utilization, x	1.03	0.32	1.56	0.60	0.59	1.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.96	1.33	33.21	3.74	3.67	18.34
95th-Percentile Queue Length [ft]	324.11	33.33	830.30	93.55	91.71	458.58
Approach Delay [s/veh]	68.59		289.84	24.91		142.70
Approach LOS	F		F	C		F
Intersection Delay [s/veh]	139.71					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	48.4
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.269

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	120	13	15	208	0	0	0	0	7	0	11
Total Analysis Volume [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.27	0.00	0.07
d_M, Delay for Movement [s/veh]	9.50	0.00	0.00	8.68	0.00	0.00	43.86	36.93	14.76	48.40	43.48	19.92
Movement LOS	A	A	A	A	A	A	E	E	B	E	E	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.00	1.43	1.43	1.43
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	4.44	4.44	0.00	0.00	0.00	0.00	35.74	35.74	35.74
d_A, Approach Delay [s/veh]	0.00			0.57			31.85			31.31		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	1.81											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	486.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.863

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	132	35	25	259	26	3	66	24	99	109	24
Total Analysis Volume [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	569	431	1135	431	378	408	832	430
Degree of Utilization, x	1.43	0.33	2.86	0.24	0.73	0.23	2.14	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	28.82	1.40	96.72	0.92	5.64	0.89	60.61	0.86
95th-Percentile Queue Length [ft]	720.42	35.05	2418.02	23.07	141.12	22.29	1515.20	21.39
Approach Delay [s/veh]	188.94		793.12		29.06		487.68	
Approach LOS	F		F		D		F	
Intersection Delay [s/veh]	486.41							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	30.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	159	15	43	532	24	27	0	21	84	17	135
Total Analysis Volume [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	34	44	0	12	21	0	14	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	38	38	11	45	45	7	16	16	10	19	19
g / C, Green / Cycle	0.04	0.42	0.42	0.12	0.50	0.50	0.08	0.18	0.18	0.11	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.04	0.10	0.41	0.42	0.06	0.00	0.05	0.10	0.18	0.19
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1830	1781	1870	1589	3459	1645	1589
c, Capacity [veh/h]	68	1490	665	210	1775	912	136	327	278	385	345	333
d1, Uniform Delay [s]	42.31	18.54	15.83	38.75	19.25	19.37	40.87	0.00	32.40	39.40	34.53	34.77
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.12	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.56	0.89	0.27	7.27	4.53	8.80	9.49	0.00	0.61	6.32	8.38	11.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.43	0.09	0.81	0.83	0.83	0.79	0.00	0.30	0.87	0.88	0.91
d, Delay for Lane Group [s/veh]	45.87	19.44	16.10	46.02	23.79	28.17	50.36	0.00	33.00	45.72	42.90	46.29
Lane Group LOS	D	B	B	D	C	C	D	A	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.60	4.26	0.71	3.82	11.74	13.31	2.66	0.00	1.62	3.95	7.09	7.37
50th-Percentile Queue Length [ft/ln]	14.90	106.46	17.67	95.41	293.54	332.87	66.54	0.00	40.49	98.75	177.33	184.29
95th-Percentile Queue Length [veh/ln]	1.07	7.64	1.27	6.87	17.36	19.30	4.79	0.00	2.92	7.11	11.46	11.82
95th-Percentile Queue Length [ft/ln]	26.81	191.07	31.81	171.73	434.03	482.48	119.77	0.00	72.88	177.74	286.52	295.60

Movement, Approach, & Intersection Results

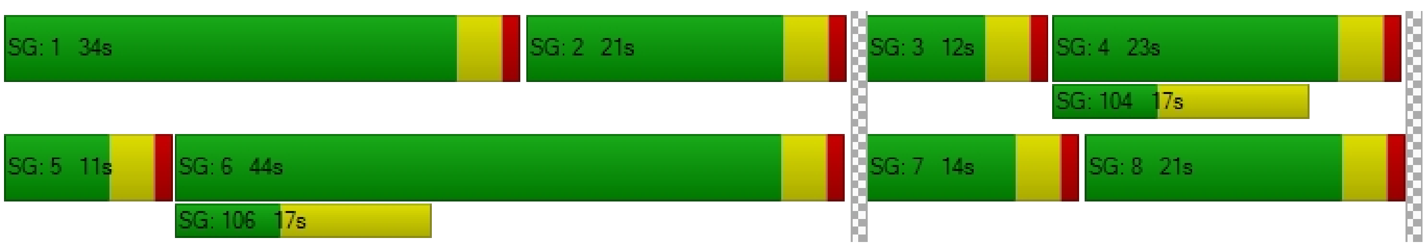
d_M, Delay for Movement [s/veh]	45.87	19.44	16.10	46.02	25.16	28.17	50.36	0.00	33.00	45.72	42.90	44.81
Movement LOS	D	B	B	D	C	C	D	A	C	D	D	D
d_A, Approach Delay [s/veh]	20.11			26.76			42.73			45.00		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.40											
Intersection LOS	C											
Intersection V/C	0.827											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.547	2.223	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	378	889	378	422
d_b, Bicycle Delay [s]	29.61	13.89	29.61	28.01
I_b,int, Bicycle LOS Score for Intersection	2.154	2.876	1.875	3.117
Bicycle LOS	B	C	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	11	31	6	32	7	4	40	67	66	51	6
Total Analysis Volume [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	454	517	435	461	504	459	490	540	468	500	553
Degree of Utilization, x	0.35	0.32	0.05	0.28	0.05	0.03	0.33	0.49	0.57	0.41	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.55	1.35	0.16	1.12	0.16	0.11	1.42	2.70	3.44	1.98	0.12
95th-Percentile Queue Length [ft]	38.80	33.77	3.98	28.06	4.07	2.70	35.51	67.51	86.11	49.45	3.10
Approach Delay [s/veh]	13.83		12.74			14.75			17.34		
Approach LOS	B		B			B			C		
Intersection Delay [s/veh]	15.18										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	149.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.631

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	41	32	34	118	14	18	69	36	44	66	25
Total Analysis Volume [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	397	660	382	417	442	423
Degree of Utilization, x	0.83	1.63	0.91	0.34	1.15	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	7.71	38.37	9.50	1.48	17.07	0.88
95th-Percentile Queue Length [ft]	192.69	959.15	237.39	37.09	426.84	22.11
Approach Delay [s/veh]	43.70	317.19	45.33		104.53	
Approach LOS	E	F	E		F	
Intersection Delay [s/veh]	149.72					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	198.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.762

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	67	22	26	190	8	1	5	28	65	17	8
Total Analysis Volume [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	502	892	441	430	494
Degree of Utilization, x	0.81	1.76	0.32	0.76	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	7.73	54.37	1.33	6.43	0.21
95th-Percentile Queue Length [ft]	193.25	1359.16	33.34	160.65	5.17
Approach Delay [s/veh]	34.00	368.66	14.87	31.37	
Approach LOS	D	F	B	D	
Intersection Delay [s/veh]	198.11				
Intersection LOS	F				

Intersection Level Of Service Report

Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	345.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.276

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	21	15	84	97	92	29	39	32	64	138	53
Total Analysis Volume [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	414	1090	395	434	416	766
Degree of Utilization, x	0.46	2.28	0.29	0.66	0.61	1.70

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.35	81.40	1.18	4.60	3.94	45.57
95th-Percentile Queue Length [ft]	58.69	2035.07	29.42	115.09	98.51	1139.21
Approach Delay [s/veh]	18.86	597.75	22.64		262.69	
Approach LOS	C	F	C		F	
Intersection Delay [s/veh]	345.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.725

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	52	0	73	14	48	0	0	65	7
Total Analysis Volume [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	561	691	610	627
Degree of Utilization, x	0.01	0.72	0.40	0.46

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	6.25	1.95	2.39
95th-Percentile Queue Length [ft]	0.54	156.30	48.65	59.68
Approach Delay [s/veh]	9.46	20.66	12.84	13.49
Approach LOS	A	C	B	B
Intersection Delay [s/veh]	16.78			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.703

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	91	4	6	0	7	1	1	9	98	19	11	1
Total Analysis Volume [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	515	555	623	471	521	548	618	480	556
Degree of Utilization, x	0.70	0.03	0.04	0.06	0.01	0.07	0.63	0.25	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.51	0.08	0.12	0.18	0.02	0.24	4.44	0.98	0.01
95th-Percentile Queue Length [ft]	137.87	2.08	3.00	4.54	0.58	5.89	110.95	24.48	0.27
Approach Delay [s/veh]	23.08			10.66		17.19		12.63	
Approach LOS	C			B		C		B	
Intersection Delay [s/veh]	18.82								
Intersection LOS	C								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	100	18	26	146	13	9	71	47	20	62	23
Total Analysis Volume [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	26	26	6	24	24	3	11	11	5	13	13
g / C, Green / Cycle	0.12	0.40	0.40	0.09	0.37	0.37	0.05	0.17	0.17	0.08	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.12	0.13	0.13	0.06	0.17	0.17	0.02	0.13	0.14	0.05	0.09	0.10
s, saturation flow rate [veh/h]	1781	1870	1772	1781	1870	1818	1781	1870	1629	1781	1870	1701
c, Capacity [veh/h]	221	751	712	165	693	674	96	328	286	151	386	351
d1, Uniform Delay [s]	28.44	13.41	13.42	28.51	15.61	15.62	29.82	25.60	25.72	28.64	22.69	22.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	20.20	1.13	1.20	3.81	2.23	2.30	2.41	3.60	4.64	2.93	0.84	0.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.96	0.32	0.32	0.62	0.46	0.47	0.38	0.76	0.78	0.54	0.46	0.47
d, Delay for Lane Group [s/veh]	48.63	14.55	14.63	32.32	17.85	17.92	32.23	29.20	30.36	31.57	23.54	23.74
Lane Group LOS	D	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.31	2.37	2.27	1.63	3.64	3.56	0.58	3.72	3.43	1.27	2.28	2.15
50th-Percentile Queue Length [ft/ln]	107.64	59.23	56.75	40.77	91.06	89.01	14.49	92.96	85.65	31.64	56.95	53.77
95th-Percentile Queue Length [veh/ln]	7.71	4.26	4.09	2.94	6.56	6.41	1.04	6.69	6.17	2.28	4.10	3.87
95th-Percentile Queue Length [ft/ln]	192.72	106.61	102.15	73.39	163.92	160.21	26.09	167.33	154.17	56.96	102.51	96.79

Movement, Approach, & Intersection Results

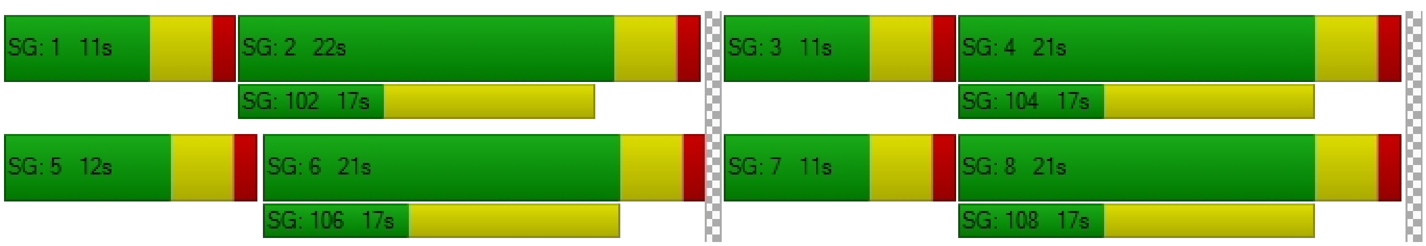
d_M, Delay for Movement [s/veh]	48.63	14.58	14.63	32.32	17.88	17.92	32.23	29.34	30.36	31.57	23.60	23.74
Movement LOS	D	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	25.14			19.90			29.92			25.16		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	24.53											
Intersection LOS	C											
Intersection V/C	0.629											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.632	2.570	2.514	2.483
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.124	2.169	1.979	1.908
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.594

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	160	12	24	181	19	14	45	34	33	60	27
Total Analysis Volume [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	28	28	6	28	28	4	9	9	6	11	11
g / C, Green / Cycle	0.09	0.43	0.43	0.09	0.43	0.43	0.07	0.13	0.13	0.10	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.19	0.05	0.22	0.22	0.03	0.09	0.09	0.07	0.13	0.07
s, saturation flow rate [veh/h]	1781	1870	1825	1781	1870	1808	1781	1870	1614	1781	1870	1589
c, Capacity [veh/h]	171	805	786	160	794	768	124	251	217	178	308	262
d1, Uniform Delay [s]	28.51	13.00	13.01	28.54	13.79	13.79	29.15	26.80	26.94	28.58	26.11	24.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.47	1.69	1.74	3.39	2.35	2.43	2.42	2.84	3.84	6.14	4.25	1.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.43	0.43	0.59	0.51	0.51	0.44	0.65	0.69	0.75	0.78	0.40
d, Delay for Lane Group [s/veh]	32.98	14.70	14.75	31.93	16.14	16.22	31.56	29.64	30.79	34.72	30.36	25.39
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.83	3.44	3.37	1.48	4.28	4.16	0.82	2.37	2.22	2.17	3.61	1.41
50th-Percentile Queue Length [ft/ln]	45.68	86.07	84.29	36.95	107.06	103.98	20.58	59.30	55.60	54.18	90.23	35.30
95th-Percentile Queue Length [veh/ln]	3.29	6.20	6.07	2.66	7.68	7.49	1.48	4.27	4.00	3.90	6.50	2.54
95th-Percentile Queue Length [ft/ln]	82.23	154.92	151.72	66.50	191.91	187.17	37.05	106.75	100.09	97.53	162.42	63.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.98	14.72	14.75	31.93	16.17	16.22	31.56	29.74	30.79	34.72	30.36	25.39
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.31			17.84			30.39			30.47		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.86											
Intersection LOS	C											
Intersection V/C	0.594											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.775	2.667	2.405	2.490
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.222	2.296	1.862	2.350
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	45.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.989

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	163	52	20	244	8	14	53	103	71	41	15
Total Analysis Volume [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	11	27	0	14	26	0	18	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	27	27	6	23	23	5	22	22	14	31	31
g / C, Green / Cycle	0.12	0.32	0.32	0.07	0.27	0.27	0.06	0.26	0.26	0.16	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.13	0.04	0.27	0.02	0.03	0.11	0.26	0.16	0.09	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	210	1141	509	125	971	433	107	480	408	293	675	574
d1, Uniform Delay [s]	37.26	24.05	22.58	38.49	30.93	22.95	38.75	26.52	31.61	35.32	19.00	18.02
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.83	2.09	2.40	5.24	29.73	0.32	3.74	0.64	32.96	18.42	0.18	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.57	0.41	0.63	1.00	0.07	0.51	0.44	1.01	0.97	0.24	0.10
d, Delay for Lane Group [s/veh]	56.09	26.13	24.97	43.73	60.66	23.27	42.49	27.16	64.57	53.74	19.18	18.10
Lane Group LOS	E	C	C	D	F	C	D	C	F	D	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.02	5.42	3.37	1.74	13.41	0.48	1.18	3.50	11.53	7.14	2.15	0.74
50th-Percentile Queue Length [ft/ln]	125.45	135.53	84.23	43.51	335.22	12.10	29.55	87.46	288.13	178.49	53.84	18.62
95th-Percentile Queue Length [veh/ln]	8.69	9.24	6.06	3.13	19.46	0.87	2.13	6.30	17.14	11.52	3.88	1.34
95th-Percentile Queue Length [ft/ln]	217.30	230.99	151.61	78.32	486.38	21.78	53.19	157.42	428.56	288.05	96.91	33.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.09	26.13	24.97	43.73	60.66	23.27	42.49	27.16	64.57	53.74	19.18	18.10
Movement LOS	E	C	C	D	F	C	D	C	F	D	B	B
d_A, Approach Delay [s/veh]		31.54			58.36			51.03			38.52	
Approach LOS		C			E			D			D	
d_I, Intersection Delay [s/veh]	45.31											
Intersection LOS	D											
Intersection V/C	0.989											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.097	2.800	2.575	2.413
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	612	541	518	612
d_b, Bicycle Delay [s]	20.48	22.61	23.35	20.48
I_b,int, Bicycle LOS Score for Intersection	2.433	2.454	2.678	2.395
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	66.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.061

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	135	18	21	354	43	29	53	97	89	122	31
Total Analysis Volume [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	25	0	33	46	0	14	31	0	26	43	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	43	43	7	42	42	9	27	27	22	40	40
g / C, Green / Cycle	0.07	0.37	0.37	0.06	0.37	0.37	0.08	0.23	0.23	0.19	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.05	0.05	0.40	0.11	0.07	0.11	0.24	0.20	0.26	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	125	1335	596	109	1303	582	143	437	371	341	644	547
d1, Uniform Delay [s]	53.50	26.48	23.55	53.23	36.46	25.94	52.05	38.14	44.09	46.51	33.48	26.78
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.40	0.28	0.28	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	44.83	0.91	0.42	11.01	51.57	1.30	10.63	0.84	54.32	48.59	4.76	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.03	0.40	0.12	0.77	1.09	0.30	0.82	0.49	1.05	1.04	0.76	0.22
d, Delay for Lane Group [s/veh]	98.33	27.40	23.97	64.24	88.03	27.24	62.68	38.98	98.40	95.10	38.24	26.99
Lane Group LOS	F	C	C	E	F	C	E	D	F	F	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.96	5.18	1.27	2.62	26.04	3.36	3.60	5.02	15.50	13.80	12.05	2.26
50th-Percentile Queue Length [ft/ln]	124.02	129.40	31.83	65.58	650.97	84.10	89.99	125.46	387.60	344.88	301.14	56.62
95th-Percentile Queue Length [veh/ln]	8.69	8.91	2.29	4.72	36.39	6.06	6.48	8.69	22.52	20.35	17.74	4.08
95th-Percentile Queue Length [ft/ln]	217.23	222.67	57.30	118.05	909.81	151.39	161.98	217.31	563.08	508.67	443.43	101.92

Movement, Approach, & Intersection Results

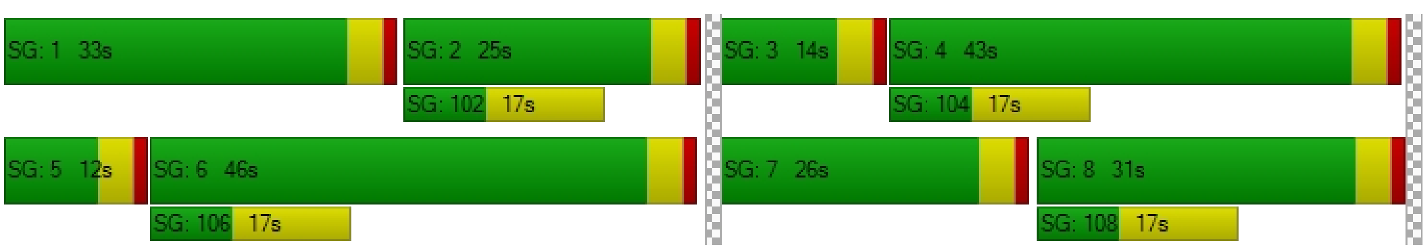
d_M, Delay for Movement [s/veh]	98.33	27.40	23.97	64.24	88.03	27.24	62.68	38.98	98.40	95.10	38.24	26.99
Movement LOS	F	C	C	E	F	C	E	D	F	F	D	C
d_A, Approach Delay [s/veh]	39.31			80.55			74.95			57.76		
Approach LOS	D			F			E			E		
d_I, Intersection Delay [s/veh]	66.73											
Intersection LOS	E											
Intersection V/C	1.061											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
I_p,int, Pedestrian LOS Score for Intersection	3.413	3.232	2.817	2.740
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	365	730	470	678
d_b, Bicycle Delay [s]	38.42	23.17	33.67	25.11
I_b,int, Bicycle LOS Score for Intersection	2.171	2.939	2.744	3.155
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	28.493

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	181	16	3	569	10	22	42	24	97	43	1
Total Analysis Volume [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.36	0.01	0.00	0.01	0.02	0.00	0.00	28.49	0.50	0.00	28.33	0.01
d_M, Delay for Movement [s/veh]	31.29	0.00	0.00	9.41	0.00	0.00	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Movement LOS	D	A	A	A	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	1.56	0.00	0.00	0.04	0.00	0.00	46.82	46.82	46.82	73.38	73.38	73.38
95th-Percentile Queue Length [ft/ln]	39.06	0.00	0.00	1.01	0.00	0.00	1170.48	1170.48	1170.48	1834.55	1834.55	1834.55
d_A, Approach Delay [s/veh]	2.79			0.04			10000.00			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	2230.41											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.941

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	194	14	61	640	0	0	0	0	33	0	26
Total Analysis Volume [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	21	0	68	78	0	0	21	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	64	64	17	81	81	17	17
g / C, Green / Cycle	0.00	0.58	0.58	0.16	0.74	0.74	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.00	0.22	0.22	0.14	0.68	0.68	0.00	0.15
s, saturation flow rate [veh/h]	1781	1870	1827	1781	1870	1870	1656	1524
c, Capacity [veh/h]	2	1082	1057	280	1374	1374	289	287
d1, Uniform Delay [s]	0.00	12.60	12.60	45.27	12.25	12.25	0.00	46.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	1.05	1.08	8.41	12.64	12.64	0.00	6.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.39	0.39	0.87	0.93	0.93	0.00	0.81
d, Delay for Lane Group [s/veh]	0.00	13.65	13.68	53.68	24.89	24.89	0.00	52.84
Lane Group LOS	A	B	B	D	C	C	A	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	4.99	4.88	6.76	20.36	20.36	0.00	6.55
50th-Percentile Queue Length [ft/ln]	0.00	124.73	122.11	169.02	508.93	508.93	0.00	163.78
95th-Percentile Queue Length [veh/ln]	0.00	8.65	8.51	11.02	27.76	27.76	0.00	10.75
95th-Percentile Queue Length [ft/ln]	0.00	216.31	212.73	275.62	693.92	693.92	0.00	268.72

Movement, Approach, & Intersection Results

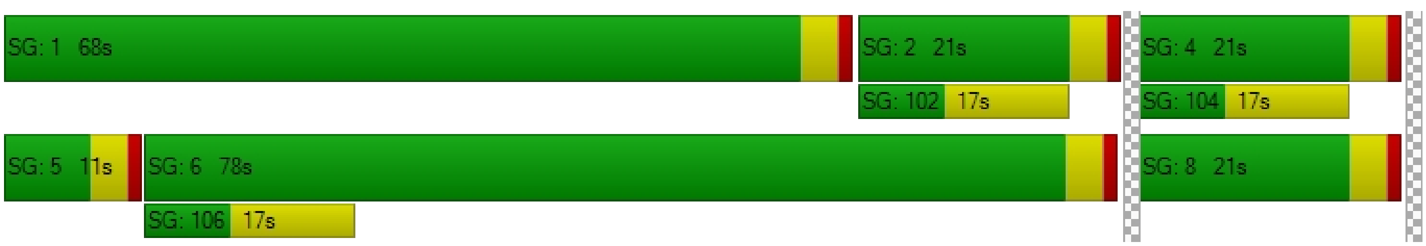
d_M, Delay for Movement [s/veh]	0.00	13.66	13.68	53.68	24.89	24.89	0.00	0.00	0.00	52.84	52.84	52.84
Movement LOS	A	B	B	D	C	C	A	A	A	D	D	D
d_A, Approach Delay [s/veh]	13.66			27.41			0.00			52.84		
Approach LOS	B			C			A			D		
d_I, Intersection Delay [s/veh]	25.99											
Intersection LOS	C											
Intersection V/C	0.941											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	44.55	44.55	44.55
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.660	1.724	2.202
Crosswalk LOS	F	D	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	309	1345	309	309
d_b, Bicycle Delay [s]	39.31	5.89	39.31	39.31
I_b,int, Bicycle LOS Score for Intersection	2.245	3.874	1.560	1.946
Bicycle LOS	B	D	A	A

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.687

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	40	9	62	67	8	6	66	36	23	72	34
Total Analysis Volume [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	21	0	16	21	0	11	22	0	11	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	19	11	24	24	3	18	6	21
g / C, Green / Cycle	0.09	0.27	0.16	0.35	0.35	0.04	0.25	0.08	0.30
(v / s)_i Volume / Saturation Flow Rate	0.06	0.11	0.14	0.14	0.02	0.01	0.23	0.05	0.24
s, saturation flow rate [veh/h]	1781	1810	1781	1870	1589	1781	1762	1781	1770
c, Capacity [veh/h]	155	491	290	648	551	65	448	149	534
d1, Uniform Delay [s]	31.00	20.90	28.50	17.43	15.26	32.94	25.34	31.01	22.48
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.83	2.46	6.87	1.92	0.20	3.21	7.62	4.10	3.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.40	0.85	0.41	0.06	0.35	0.91	0.62	0.79
d, Delay for Lane Group [s/veh]	35.83	23.36	35.37	19.35	15.46	36.15	32.96	35.11	25.69
Lane Group LOS	D	C	D	B	B	D	C	D	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.86	2.90	4.32	3.32	0.34	0.42	6.85	1.58	6.18
50th-Percentile Queue Length [ft/ln]	46.48	72.45	107.89	83.09	8.61	10.43	171.34	39.39	154.62
95th-Percentile Queue Length [veh/ln]	3.35	5.22	7.72	5.98	0.62	0.75	11.15	2.84	10.26
95th-Percentile Queue Length [ft/ln]	83.67	130.41	193.07	149.56	15.50	18.77	278.67	70.90	256.58

Movement, Approach, & Intersection Results

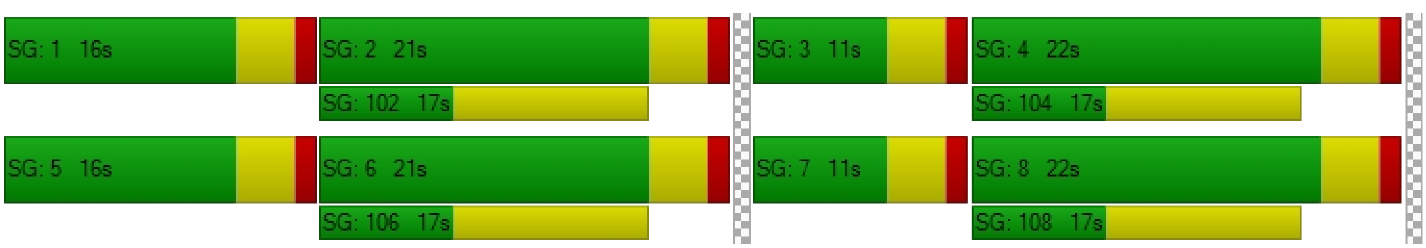
d_M, Delay for Movement [s/veh]	35.83	23.36	23.36	35.37	19.35	15.46	36.15	32.96	32.96	35.11	25.69	25.69
Movement LOS	D	C	C	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	27.63			26.36			33.13			27.37		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	28.49											
Intersection LOS	C											
Intersection V/C	0.687											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.143	2.363	2.395	2.387
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	514	514
d_b, Bicycle Delay [s]	20.06	20.06	19.31	19.31
I_b,int, Bicycle LOS Score for Intersection	2.056	2.457	2.269	2.411
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	87.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.099

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	53	18	2	196	61	17	30	50	69	71	7
Total Analysis Volume [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	32	0	39	60	0	11	24	0	20	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	61	2	57	6	20	16	30
g / C, Green / Cycle	0.05	0.53	0.01	0.50	0.05	0.17	0.14	0.26
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.00	0.57	0.04	0.19	0.15	0.17
s, saturation flow rate [veh/h]	1781	1789	1781	1795	1781	1683	1781	1840
c, Capacity [veh/h]	89	957	25	895	97	291	248	474
d1, Uniform Delay [s]	53.50	14.80	56.17	28.83	53.50	47.58	49.50	38.19
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.25	0.15	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.38	0.80	7.22	78.87	9.29	67.90	65.75	2.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.30	0.32	1.15	0.71	1.10	1.11	0.66
d, Delay for Lane Group [s/veh]	59.88	15.59	63.38	107.71	62.79	115.48	115.26	41.03
Lane Group LOS	E	B	E	F	E	F	F	D
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.62	3.89	0.27	41.06	2.13	13.36	11.29	7.79
50th-Percentile Queue Length [ft/ln]	40.62	97.23	6.77	1026.41	53.25	333.91	282.31	194.87
95th-Percentile Queue Length [veh/ln]	2.92	7.00	0.49	57.15	3.83	20.27	17.58	12.37
95th-Percentile Queue Length [ft/ln]	73.11	175.01	12.19	1428.71	95.85	506.76	439.59	309.34

Movement, Approach, & Intersection Results

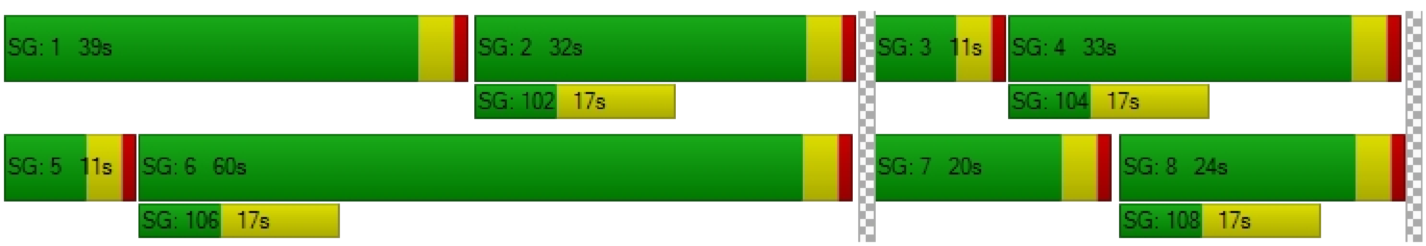
d_M, Delay for Movement [s/veh]	59.88	15.59	15.59	63.38	107.71	107.71	62.79	115.48	115.48	115.26	41.03	41.03
Movement LOS	E	B	B	E	F	F	E	F	F	F	D	D
d_A, Approach Delay [s/veh]	22.65			107.36			106.13			75.74		
Approach LOS	C			F			F			E		
d_I, Intersection Delay [s/veh]	87.03											
Intersection LOS	F											
Intersection V/C	1.099											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
I_p,int, Pedestrian LOS Score for Intersection	2.905	2.753	2.529	2.421
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	487	974	348	504
d_b, Bicycle Delay [s]	32.91	15.13	39.24	32.16
I_b,int, Bicycle LOS Score for Intersection	2.119	3.266	2.201	2.530
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	568.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.718

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	1467	187	24	183	93	366
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1467	187	24	183	93	366
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	367	47	6	46	23	92
Total Analysis Volume [veh/h]	1467	187	24	183	93	366
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1654	533	524	583
Degree of Utilization, x	2.72	0.39	0.18	0.63

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	135.26	1.82	0.64	4.36
95th-Percentile Queue Length [ft]	3381.59	45.56	16.01	109.10
Approach Delay [s/veh]	791.19	13.97	17.18	
Approach LOS	F	B	C	
Intersection Delay [s/veh]	568.71			
Intersection LOS	F			

Intersection Level Of Service Report

Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.798

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	61	1	9	10	61	3	1	87	38
Total Analysis Volume [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	539	580	534	580	556	625
Degree of Utilization, x	0.00	0.49	0.07	0.44	0.01	0.80

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	2.74	0.24	2.27	0.02	7.91
95th-Percentile Queue Length [ft]	0.28	68.40	6.06	56.83	0.41	197.70
Approach Delay [s/veh]	9.70	15.14	13.27		27.23	
Approach LOS	A	C	B		D	
Intersection Delay [s/veh]	20.19					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.175

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	35	1852	100	0	245	408	490	300	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	35	1852	100	0	245	408	490	300	0
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	1.0000	1.0000	1.0000	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	9	463	25	0	61	102	123	75	0
Total Analysis Volume [veh/h]	0	0	0	35	1852	100	0	245	408	490	300	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.00	0.00	3.66	4.42	0.00	5.17	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3295.51	3280.79	10000.0	10000.0	0.00
Movement LOS				A	A	A		F	F	F	F	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.80	74.80	101.66	101.66	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1869.97	1869.97	2541.60	2541.60	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			3286.31			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	2928.85											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	98	425	103	0	0	0	0	247	0	0	622	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	425	103	0	0	0	0	247	0	0	622	32
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	106	26	0	0	0	0	62	0	0	156	8
Total Analysis Volume [veh/h]	98	425	103	0	0	0	0	247	0	0	622	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	1.54	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	10000.0	0.00	0.00	303.20	299.98
Movement LOS	A	A	A				F	F			F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	33.63	33.63	0.00	0.00	37.09	37.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	840.73	840.73	0.00	0.00	927.25	927.25
d_A, Approach Delay [s/veh]	0.00			0.00			10000.00			303.04		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1747.34											
Intersection LOS	F											

Desert Hot Springs General Plan Update

Vistro File: G:\...\EGP PM.vistro
Report File: G:\...\Existing GP PM.pdf

Scenario 1 Existing General Plan
5/31/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	SB Left	1.510	224.0	F
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Right	1.099	83.6	F
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.797	20.9	C
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	2.010	247.7	F
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.612	104.1	F
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	3.285	518.9	F
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	1.076	65.8	E
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.926	27.6	D
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	2.225	279.3	F
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	NB Thru	2.465	392.0	F
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	2.058	318.9	F
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	EB Left	1.045	44.0	E
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.942	32.3	D
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.580	22.8	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.802	28.9	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Right	0.934	38.3	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.953	41.6	D

19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	EB Thru	46.535	10,000.0	F
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	NB Right	1.129	66.9	E
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.951	50.7	D
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Thru	1.041	72.7	E
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	WB Right	3.025	588.3	F
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Thru	1.180	61.3	F
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Thru	2.694	10,000.0	F
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Thru	15.864	10,000.0	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	224.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.510

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	462	6	127	204	0	0	0	0	1	0	221
Total Analysis Volume [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	45	0	27	61	0	0	48	0	0	48	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	41	41	23	64	64	44	44	44
g / C, Green / Cycle	0.00	0.34	0.34	0.19	0.53	0.53	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.00	0.52	0.01	0.28	0.23	0.00	0.00	0.00	0.55
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1507	1589
c, Capacity [veh/h]	2	1219	544	342	1899	848	714	605	581
d1, Uniform Delay [s]	0.00	39.44	26.32	48.45	16.94	13.07	0.00	24.20	38.04
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	236.52	0.15	232.32	0.71	0.00	0.00	0.01	241.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	1.52	0.04	1.48	0.43	0.00	0.00	0.01	1.52
d, Delay for Lane Group [s/veh]	0.00	275.96	26.46	280.77	17.65	13.07	0.00	24.20	279.80
Lane Group LOS	A	F	C	F	B	B	A	C	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	56.21	0.43	31.76	6.29	0.01	0.00	0.09	54.69
50th-Percentile Queue Length [ft/ln]	0.00	1405.27	10.73	794.07	157.26	0.30	0.00	2.17	1367.24
95th-Percentile Queue Length [veh/ln]	0.00	85.67	0.77	48.71	10.40	0.02	0.00	0.16	83.92
95th-Percentile Queue Length [ft/ln]	0.00	2141.66	19.32	1217.77	260.10	0.55	0.00	3.90	2098.12

Movement, Approach, & Intersection Results

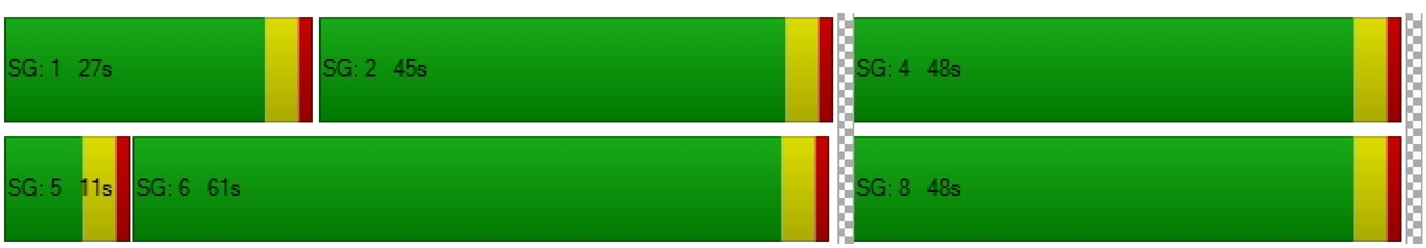
d_M, Delay for Movement [s/veh]	0.00	275.96	26.46	280.77	17.65	13.07	0.00	0.00	0.00	24.20	24.20	279.80
Movement LOS	A	F	C	F	B	B	A	A	A	C	C	F
d_A, Approach Delay [s/veh]	272.89			118.40			0.00			278.36		
Approach LOS	F			F			A			F		
d_I, Intersection Delay [s/veh]	223.97											
Intersection LOS	F											
Intersection V/C	1.510											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	950	733	733
d_b, Bicycle Delay [s]	26.00	16.54	24.07	24.07
I_b,int, Bicycle LOS Score for Intersection	3.103	2.652	1.560	3.023
Bicycle LOS	C	B	A	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	83.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.099

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		65.00			65.00			30.00			55.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		No			No			No			No	
Crosswalk		No			No			No			No	

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	411	48	18	286	1	1	2	4	75	2	175
Total Analysis Volume [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	48	0	11	48	0	0	11	0	0	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	47	47	6	52	52	4	4	46	46
g / C, Green / Cycle	0.01	0.39	0.39	0.05	0.43	0.43	0.04	0.04	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.00	0.46	0.12	0.04	0.32	0.00	0.01	0.01	0.17	0.44
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1837	1589	1783	1589
c, Capacity [veh/h]	25	1405	627	95	1544	689	67	58	682	608
d1, Uniform Delay [s]	58.59	36.34	24.99	56.03	28.35	19.28	56.13	56.23	27.70	37.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.03	84.66	1.24	11.11	3.23	0.01	1.51	2.31	0.47	86.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	1.17	0.30	0.75	0.74	0.00	0.21	0.26	0.45	1.15
d, Delay for Lane Group [s/veh]	65.63	121.00	26.23	67.14	31.59	19.28	57.65	58.54	28.17	123.86
Lane Group LOS	E	F	C	E	C	B	E	E	C	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.28	34.74	3.61	2.30	12.82	0.03	0.44	0.48	6.28	30.94
50th-Percentile Queue Length [ft/ln]	6.93	868.49	90.17	57.40	320.47	0.76	11.02	12.00	156.92	773.47
95th-Percentile Queue Length [veh/ln]	0.50	49.39	6.49	4.13	18.69	0.05	0.79	0.86	10.39	44.09
95th-Percentile Queue Length [ft/ln]	12.48	1234.81	162.31	103.33	467.27	1.36	19.84	21.60	259.64	1102.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.63	121.00	26.23	67.14	31.59	19.28	57.65	57.65	58.54	28.17	28.17	123.86
Movement LOS	E	F	C	E	C	B	E	E	E	C	C	F
d_A, Approach Delay [s/veh]	110.98			33.64			58.11			94.59		
Approach LOS	F			C			E			F		
d_I, Intersection Delay [s/veh]	83.61											
Intersection LOS	F											
Intersection V/C	1.099											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	733	733	117	767
d_b, Bicycle Delay [s]	24.07	24.07	53.20	22.82
I_b,int, Bicycle LOS Score for Intersection	3.079	2.563	1.607	3.226
Bicycle LOS	C	B	A	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.797

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	498	257	223	271	189	392
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	498	257	223	271	189	392
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	125	64	56	68	47	98
Total Analysis Volume [veh/h]	498	257	223	271	189	392
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	21	0	18	39	21	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	9	36	16	16
g / C, Green / Cycle	0.37	0.37	0.16	0.59	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.27	0.16	0.13	0.14	0.11	0.25
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	690	587	278	1106	490	438
d1, Uniform Delay [s]	16.31	14.28	24.50	5.87	17.67	20.97
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.42	2.37	5.37	0.53	0.50	6.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.44	0.80	0.24	0.39	0.90
d, Delay for Lane Group [s/veh]	22.73	16.65	29.87	6.39	18.17	27.64
Lane Group LOS	C	B	C	A	B	C
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.63	2.37	2.98	1.04	1.83	5.14
50th-Percentile Queue Length [ft/ln]	140.80	59.34	74.61	26.11	45.63	128.44
95th-Percentile Queue Length [veh/ln]	9.52	4.27	5.37	1.88	3.29	8.85
95th-Percentile Queue Length [ft/ln]	238.10	106.81	134.30	47.00	82.14	221.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.73	16.65	29.87	6.39	18.17	27.64
Movement LOS	C	B	C	A	B	C
d_A, Approach Delay [s/veh]	20.66		16.99		24.56	
Approach LOS	C		B		C	
d_I, Intersection Delay [s/veh]	20.91					
Intersection LOS	C					
Intersection V/C	0.797					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.540
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	5.378	4.948	4.132
Bicycle LOS	F	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	247.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.010

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	147	39	11	91	14	35	57	29	40	68	14
Total Analysis Volume [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	741	401	464	367	401	485
Degree of Utilization, x	2.01	0.39	1.29	1.00	0.29	1.36

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	51.89	1.80	21.30	11.82	1.19	23.67
95th-Percentile Queue Length [ft]	1297.34	45.02	532.58	295.58	29.85	591.80
Approach Delay [s/veh]	404.11		179.77	64.48		206.19
Approach LOS	F		F	F		F
Intersection Delay [s/veh]	247.69					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	104.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	10	13	134	0	0	0	0	13	0	14
Total Analysis Volume [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.07	0.01	0.00	0.00	0.00	0.00	0.61	0.00	0.17
d_M, Delay for Movement [s/veh]	8.49	0.00	0.00	10.32	0.00	0.00	56.62	41.73	11.62	104.14	97.37	73.33
Movement LOS	A	A	A	B	A	A	F	E	B	F	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.00	4.78	4.78	4.78
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	5.64	5.64	0.00	0.00	0.00	0.00	119.50	119.50	119.50
d_A, Approach Delay [s/veh]	0.00			0.89			36.66			88.17		
Approach LOS	A			A			E			F		
d_I, Intersection Delay [s/veh]	6.24											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	518.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.285

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	292	81	22	153	18	14	81	11	56	86	44
Total Analysis Volume [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1243	409	700	403	378	401	570	407
Degree of Utilization, x	3.28	0.79	1.88	0.18	1.02	0.10	1.54	0.43

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	112.23	6.88	46.59	0.63	12.41	0.35	31.67	2.13
95th-Percentile Queue Length [ft]	2805.68	171.96	1164.79	15.79	310.24	8.71	791.66	53.18
Approach Delay [s/veh]	844.23		389.88		77.11		217.87	
Approach LOS	F		F		F		F	
Intersection Delay [s/veh]	518.86							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	65.8
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.076

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	327	86	44	224	14	26	30	125	114	20	78
Total Analysis Volume [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	39	0	14	33	0	31	35	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	35	35	10	31	31	8	31	31	13	36	36
g / C, Green / Cycle	0.14	0.33	0.33	0.10	0.29	0.29	0.07	0.29	0.29	0.12	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.12	0.37	0.22	0.10	0.18	0.18	0.06	0.06	0.32	0.13	0.12	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1814	1781	1870	1589	3459	1692	1589
c, Capacity [veh/h]	245	1193	533	170	1043	531	132	549	466	428	581	546
d1, Uniform Delay [s]	44.40	34.91	29.63	47.50	31.89	31.90	47.80	28.02	37.10	46.00	25.64	25.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.46	56.21	5.94	42.00	2.59	5.04	9.71	0.20	63.07	38.20	0.35	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	1.10	0.65	1.04	0.60	0.60	0.78	0.22	1.07	1.06	0.34	0.35
d, Delay for Lane Group [s/veh]	53.86	91.12	35.57	89.51	34.48	36.94	57.51	28.21	100.18	84.21	25.98	26.13
Lane Group LOS	D	F	D	F	C	D	E	C	F	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.79	23.13	7.64	6.18	6.73	7.24	2.99	2.30	19.85	7.82	3.70	3.61
50th-Percentile Queue Length [ft/ln]	144.63	578.22	190.98	154.45	168.37	180.91	74.82	57.50	496.27	195.41	92.45	90.13
95th-Percentile Queue Length [veh/ln]	9.73	32.91	12.17	10.39	10.99	11.65	5.39	4.14	28.40	12.70	6.66	6.49
95th-Percentile Queue Length [ft/ln]	243.24	822.71	304.30	259.76	274.77	291.20	134.68	103.50	709.91	317.50	166.40	162.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.86	91.12	35.57	89.51	35.21	36.94	57.51	28.21	100.18	84.21	25.98	26.08
Movement LOS	D	F	D	F	D	D	E	C	F	F	C	C
d_A, Approach Delay [s/veh]	76.60			43.77			82.18			57.34		
Approach LOS	E			D			F			E		
d_I, Intersection Delay [s/veh]	65.81											
Intersection LOS	E											
Intersection V/C	1.076											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.308	2.400	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	552	590	324
d_b, Bicycle Delay [s]	23.33	27.50	26.08	36.88
I_b,int, Bicycle LOS Score for Intersection	3.098	2.179	2.754	2.952
Bicycle LOS	C	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.926

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	23	67	3	20	3	6	44	59	45	53	6
Total Analysis Volume [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	454	519	393	413	447	398	422	460	399	423	461
Degree of Utilization, x	0.93	0.69	0.03	0.19	0.03	0.06	0.42	0.51	0.45	0.50	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	10.65	5.22	0.09	0.69	0.08	0.20	2.03	2.82	2.25	2.71	0.16
95th-Percentile Queue Length [ft]	266.18	130.55	2.36	17.16	2.07	5.00	50.84	70.62	56.35	67.77	4.11
Approach Delay [s/veh]	39.94		12.99			17.57			18.67		
Approach LOS	E		B			C			C		
Intersection Delay [s/veh]	27.61										
Intersection LOS	D										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	279.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.225

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	137	46	28	88	7	11	59	18	29	70	41
Total Analysis Volume [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	906	489	369	402	395	423
Degree of Utilization, x	2.23	1.21	0.75	0.18	1.03	0.38

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	67.40	19.96	5.93	0.63	12.84	1.77
95th-Percentile Queue Length [ft]	1685.03	498.97	148.23	15.87	320.94	44.23
Approach Delay [s/veh]	578.89	144.91	31.77		64.48	
Approach LOS	F	F	D		F	
Intersection Delay [s/veh]	279.26					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	392.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.465

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	204	69	16	101	7	0	26	25	39	8	31
Total Analysis Volume [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1221	496	432	400	457
Degree of Utilization, x	2.46	1.00	0.47	0.47	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	95.50	13.46	2.43	2.41	1.10
95th-Percentile Queue Length [ft]	2387.55	336.58	60.81	60.33	27.52
Approach Delay [s/veh]	681.51	66.18	18.46	17.01	
Approach LOS	F	F	C	C	
Intersection Delay [s/veh]	392.04				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	318.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.058

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	96	63	58	53	45	74	104	20	35	84	88
Total Analysis Volume [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	793	622	355	497	354	684
Degree of Utilization, x	2.06	1.62	0.83	1.32	0.39	1.77

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	56.24	36.27	7.44	23.07	1.79	43.10
95th-Percentile Queue Length [ft]	1406.09	906.85	186.04	576.87	44.85	1077.44
Approach Delay [s/veh]	505.91	315.37	135.48		317.71	
Approach LOS	F	F	F		F	
Intersection Delay [s/veh]	318.85					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	44.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.045

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	27	0	49	111	55	0	0	52	29
Total Analysis Volume [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	487	587	666	628
Degree of Utilization, x	0.01	0.52	1.05	0.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	2.98	17.72	2.95
95th-Percentile Queue Length [ft]	0.62	74.38	442.90	73.82
Approach Delay [s/veh]	10.45	15.54	71.44	14.66
Approach LOS	B	C	F	B
Intersection Delay [s/veh]	44.01			
Intersection LOS	E			

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	32.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.942

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	5	14	0	2	1	1	9	86	11	7	0
Total Analysis Volume [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	540	585	660	461	513	524	586	457	525
Degree of Utilization, x	0.94	0.03	0.09	0.02	0.01	0.07	0.58	0.15	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.99	0.10	0.28	0.05	0.02	0.22	3.74	0.54	0.01
95th-Percentile Queue Length [ft]	299.78	2.52	7.06	1.32	0.44	5.52	93.54	13.41	0.14
Approach Delay [s/veh]	45.52			10.40		16.41		11.96	
Approach LOS	E			B		C		B	
Intersection Delay [s/veh]	32.34								
Intersection LOS	D								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	162	17	16	107	30	31	29	44	19	58	45
Total Analysis Volume [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	28	28	5	25	25	6	11	11	5	10	10
g / C, Green / Cycle	0.12	0.42	0.42	0.08	0.38	0.38	0.10	0.17	0.17	0.08	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.09	0.19	0.19	0.04	0.15	0.15	0.07	0.06	0.11	0.04	0.12	0.12
s, saturation flow rate [veh/h]	1781	1870	1810	1781	1870	1732	1781	1870	1589	1781	1870	1609
c, Capacity [veh/h]	213	790	764	137	709	657	175	325	276	146	295	254
d1, Uniform Delay [s]	27.94	13.51	13.51	28.88	14.81	14.84	28.55	23.76	25.07	28.71	26.19	26.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.51	1.92	1.98	2.56	1.67	1.83	5.35	0.67	2.47	2.77	3.55	4.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.46	0.46	0.48	0.40	0.40	0.71	0.36	0.64	0.51	0.73	0.76
d, Delay for Lane Group [s/veh]	34.45	15.42	15.49	31.44	16.48	16.67	33.90	24.43	27.54	31.48	29.74	31.01
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.78	3.70	3.60	1.02	3.01	2.85	2.04	1.54	2.55	1.17	3.27	3.00
50th-Percentile Queue Length [ft/ln]	69.55	92.59	89.99	25.39	75.36	71.30	50.94	38.47	63.72	29.27	81.68	74.92
95th-Percentile Queue Length [veh/ln]	5.01	6.67	6.48	1.83	5.43	5.13	3.67	2.77	4.59	2.11	5.88	5.39
95th-Percentile Queue Length [ft/ln]	125.19	166.67	161.97	45.71	135.65	128.35	91.69	69.25	114.69	52.69	147.02	134.86

Movement, Approach, & Intersection Results

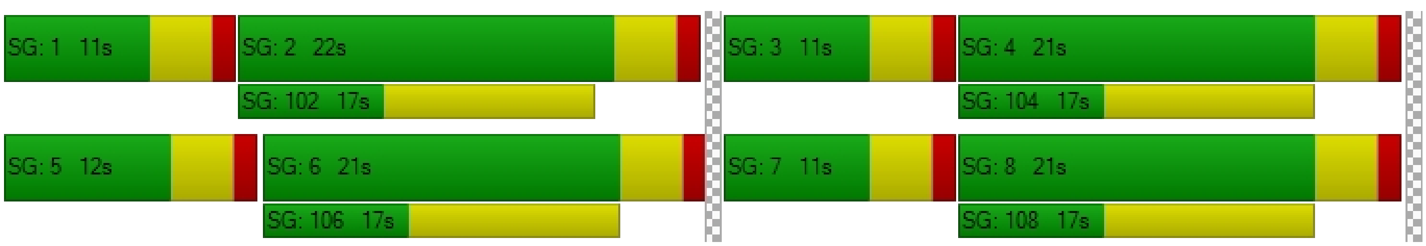
d_M, Delay for Movement [s/veh]	34.45	15.45	15.49	31.44	16.54	16.67	33.90	24.43	27.54	31.48	29.82	31.01
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]		19.10			18.15			28.57			30.52	
Approach LOS		B			B			C			C	
d_I, Intersection Delay [s/veh]						22.82						
Intersection LOS						C						
Intersection V/C						0.580						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.637	2.637	2.496	2.449
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.287	2.064	1.905	1.960
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.802

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	242	19	34	149	19	30	59	34	47	90	37
Total Analysis Volume [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	21	0	15	21	0	12	21	0	13	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	25	25	7	25	25	6	13	13	9	16	16
g / C, Green / Cycle	0.10	0.36	0.36	0.10	0.35	0.35	0.09	0.19	0.19	0.13	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.08	0.28	0.28	0.08	0.18	0.18	0.07	0.10	0.11	0.11	0.19	0.09
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1797	1781	1870	1647	1781	1870	1589
c, Capacity [veh/h]	188	671	654	177	659	633	164	346	305	230	415	353
d1, Uniform Delay [s]	30.60	20.12	20.13	30.85	18.03	18.03	31.06	26.03	26.12	29.78	26.31	23.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.68	9.07	9.33	6.86	2.91	3.03	6.30	1.42	1.73	6.85	5.42	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.79	0.79	0.77	0.52	0.52	0.74	0.56	0.58	0.81	0.86	0.42
d, Delay for Lane Group [s/veh]	37.28	29.19	29.47	37.71	20.93	21.06	37.37	27.45	27.85	36.63	31.73	24.25
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.63	8.58	8.42	2.47	4.50	4.35	2.12	2.80	2.57	3.29	5.86	2.01
50th-Percentile Queue Length [ft/ln]	65.71	214.46	210.52	61.64	112.48	108.75	53.06	70.03	64.31	82.19	146.44	50.16
95th-Percentile Queue Length [veh/ln]	4.73	13.38	13.18	4.44	7.98	7.77	3.82	5.04	4.63	5.92	9.83	3.61
95th-Percentile Queue Length [ft/ln]	118.29	334.54	329.49	110.95	199.45	194.27	95.51	126.06	115.76	147.93	245.67	90.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.28	29.32	29.47	37.71	20.99	21.06	37.37	27.52	27.85	36.63	31.73	24.25
Movement LOS	D	C	C	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	30.30			23.81			30.04			31.45		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	28.87											
Intersection LOS	C											
Intersection V/C	0.802											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.838	2.751	2.509	2.582
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	486	514
d_b, Bicycle Delay [s]	20.06	20.06	20.06	19.31
I_b,int, Bicycle LOS Score for Intersection	2.541	2.225	1.965	2.703
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	38.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.934

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	83	278	43	28	181	9	32	57	82	68	51	26
Total Analysis Volume [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	31	0	11	22	0	17	21	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	28	28	6	18	18	7	17	17	13	23	23
g / C, Green / Cycle	0.20	0.35	0.35	0.08	0.23	0.23	0.09	0.21	0.21	0.16	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.19	0.31	0.11	0.06	0.20	0.02	0.07	0.12	0.21	0.15	0.11	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	356	1234	551	144	809	361	164	393	334	290	525	446
d1, Uniform Delay [s]	31.46	24.84	19.17	36.11	29.98	24.46	35.56	28.45	31.41	33.15	23.23	22.13
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.71	10.61	1.48	9.03	14.25	0.55	8.02	1.37	18.76	14.24	0.47	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.90	0.31	0.79	0.89	0.10	0.79	0.58	0.98	0.94	0.39	0.23
d, Delay for Lane Group [s/veh]	42.18	35.45	20.65	45.14	44.24	25.01	43.59	29.82	50.16	47.40	23.70	22.39
Lane Group LOS	D	D	C	D	D	C	D	C	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.93	10.86	2.39	2.45	7.98	0.57	2.71	3.85	7.56	6.15	2.99	1.43
50th-Percentile Queue Length [ft/ln]	173.33	271.42	59.70	61.29	199.55	14.36	67.73	96.35	189.08	153.63	74.87	35.82
95th-Percentile Queue Length [veh/ln]	11.25	16.26	4.30	4.41	12.62	1.03	4.88	6.94	12.07	10.21	5.39	2.58
95th-Percentile Queue Length [ft/ln]	281.29	406.51	107.45	110.33	315.39	25.84	121.91	173.43	301.83	255.27	134.77	64.48

Movement, Approach, & Intersection Results

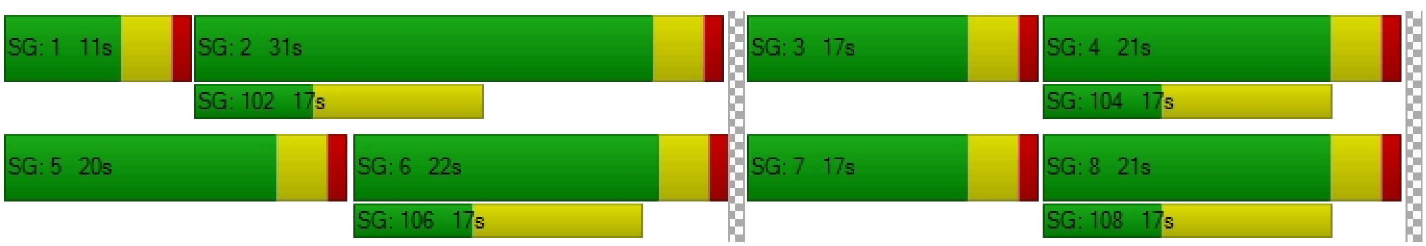
d_M, Delay for Movement [s/veh]	42.18	35.45	20.65	45.14	44.24	25.01	43.59	29.82	50.16	47.40	23.70	22.39
Movement LOS	D	D	C	D	D	C	D	C	D	D	C	C
d_A, Approach Delay [s/veh]		35.25			43.56			42.11			34.66	
Approach LOS		D			D			D			C	
d_I, Intersection Delay [s/veh]						38.34						
Intersection LOS						D						
Intersection V/C						0.934						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
I_p,int, Pedestrian LOS Score for Intersection	3.132	2.866	2.619	2.435
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	675	450	425	425
d_b, Bicycle Delay [s]	17.56	24.03	24.81	24.81
I_b,int, Bicycle LOS Score for Intersection	2.890	2.278	2.688	2.513
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	41.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.953

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	80	341	73	29	191	49	61	106	44	41	89	44
Total Analysis Volume [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	37	0	11	28	0	16	24	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	33	33	7	24	24	12	20	20	9	17	17
g / C, Green / Cycle	0.19	0.39	0.39	0.08	0.28	0.28	0.14	0.23	0.23	0.11	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.18	0.38	0.18	0.06	0.21	0.12	0.14	0.23	0.11	0.09	0.19	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	335	1393	622	145	1013	452	252	436	370	189	370	314
d1, Uniform Delay [s]	34.13	25.53	19.29	38.35	27.72	24.81	36.29	32.36	28.14	37.38	33.81	30.74
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.19	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.88	19.47	2.52	9.26	5.23	2.98	18.64	20.80	0.95	10.64	15.00	1.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.98	0.47	0.79	0.76	0.43	0.96	0.97	0.48	0.86	0.96	0.55
d, Delay for Lane Group [s/veh]	48.01	45.00	21.81	47.60	32.95	27.79	54.92	53.16	29.08	48.02	48.81	32.26
Lane Group LOS	D	D	C	D	C	C	D	D	C	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.09	14.97	4.05	2.55	7.02	3.24	5.86	10.23	2.88	3.60	8.09	3.04
50th-Percentile Queue Length [ft/ln]	177.29	374.32	101.25	63.66	175.50	81.04	146.42	255.81	72.05	90.11	202.35	76.12
95th-Percentile Queue Length [veh/ln]	11.46	21.32	7.29	4.58	11.37	5.84	9.83	15.48	5.19	6.49	12.76	5.48
95th-Percentile Queue Length [ft/ln]	286.47	532.96	182.24	114.59	284.13	145.88	245.64	386.96	129.70	162.21	318.99	137.02

Movement, Approach, & Intersection Results

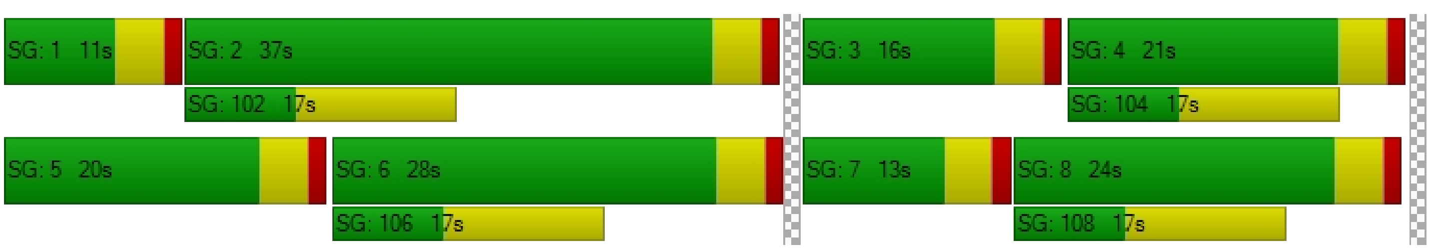
d_M, Delay for Movement [s/veh]	48.01	45.00	21.81	47.60	32.95	27.79	54.92	53.16	29.08	48.02	48.81	32.26
Movement LOS	D	D	C	D	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]		42.07			33.58			48.63			44.47	
Approach LOS		D			C			D			D	
d_I, Intersection Delay [s/veh]	41.64											
Intersection LOS	D											
Intersection V/C	0.953											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.447	3.319	2.893	2.808
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	776	565	471	400
d_b, Bicycle Delay [s]	15.91	21.89	24.85	27.20
I_b,int, Bicycle LOS Score for Intersection	3.187	2.446	2.949	2.701
Bicycle LOS	C	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	46.535

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	468	103	10	245	17	19	45	18	43	23	10
Total Analysis Volume [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.02	0.00	0.17	0.01	0.00	0.00	46.54	0.13	0.00	13.95	0.15
d_M, Delay for Movement [s/veh]	11.54	0.00	0.00	24.92	0.00	0.00	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Movement LOS	B	A	A	C	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.60	0.00	0.00	0.61	0.00	0.00	43.68	43.68	43.68	40.54	40.54	40.54
95th-Percentile Queue Length [ft/ln]	14.99	0.00	0.00	15.37	0.00	0.00	1092.06	1092.06	1092.06	1013.58	1013.58	1013.58
d_A, Approach Delay [s/veh]	0.53			0.87			10000.00			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1531.70											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	66.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.129

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	570	30	50	246	0	0	0	0	21	0	68
Total Analysis Volume [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	62	0	15	66	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	58	58	11	69	69	19	19
g / C, Green / Cycle	0.00	0.58	0.58	0.11	0.69	0.69	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.00	0.64	0.65	0.11	0.26	0.26	0.00	0.23
s, saturation flow rate [veh/h]	1781	1870	1838	1781	1870	1870	1540	1558
c, Capacity [veh/h]	5	1082	1064	197	1284	1284	329	341
d1, Uniform Delay [s]	49.72	21.06	21.06	44.47	6.67	6.67	32.81	41.66
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.28
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.15	62.03	69.77	33.35	0.87	0.87	0.01	48.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	1.11	1.13	1.01	0.38	0.38	0.01	1.04
d, Delay for Lane Group [s/veh]	64.88	83.08	90.83	77.82	7.53	7.53	32.82	89.68
Lane Group LOS	E	F	F	F	A	A	C	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.05	37.76	39.39	6.37	3.27	3.27	0.04	12.62
50th-Percentile Queue Length [ft/ln]	1.16	943.94	984.76	159.13	81.70	81.70	0.94	315.50
95th-Percentile Queue Length [veh/ln]	0.08	51.98	54.69	10.56	5.88	5.88	0.07	18.86
95th-Percentile Queue Length [ft/ln]	2.10	1299.46	1367.32	264.02	147.06	147.06	1.69	471.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.88	86.75	90.83	77.82	7.53	7.53	32.82	32.82	32.82	89.68	89.68	89.68
Movement LOS	E	F	F	F	A	A	C	C	C	F	F	F
d_A, Approach Delay [s/veh]	86.95			19.42			32.82			89.68		
Approach LOS	F			B			C			F		
d_I, Intersection Delay [s/veh]	66.89											
Intersection LOS	E											
Intersection V/C	1.129											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.671	1.723	2.325
Crosswalk LOS	F	D	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1160	1240	380	380
d_b, Bicycle Delay [s]	8.82	7.22	32.81	32.81
I_b,int, Bicycle LOS Score for Intersection	3.540	2.536	1.563	2.147
Bicycle LOS	D	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	50.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.951

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	96	26	44	44	18	7	71	33	18	112	70
Total Analysis Volume [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	30	0	14	22	0	12	45	0	11	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	27	10	23	23	4	41	6	43
g / C, Green / Cycle	0.15	0.27	0.10	0.23	0.23	0.04	0.41	0.06	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.27	0.10	0.09	0.05	0.02	0.23	0.04	0.41
s, saturation flow rate [veh/h]	1781	1803	1781	1870	1589	1781	1770	1781	1752
c, Capacity [veh/h]	263	495	178	424	360	66	717	108	751
d1, Uniform Delay [s]	41.69	36.07	44.94	33.01	31.34	47.09	23.12	45.99	27.88
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.13	0.11	0.42
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.81	36.76	28.58	2.96	1.25	4.04	0.92	6.92	23.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.98	0.99	0.41	0.20	0.41	0.58	0.67	0.97
d, Delay for Lane Group [s/veh]	50.50	72.83	73.52	35.97	32.58	51.13	24.04	52.91	50.89
Lane Group LOS	D	E	E	D	C	D	C	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.19	16.74	5.69	3.90	1.51	0.72	7.33	1.91	20.32
50th-Percentile Queue Length [ft/ln]	154.85	418.41	142.23	97.46	37.79	17.90	183.15	47.87	508.07
95th-Percentile Queue Length [veh/ln]	10.28	23.45	9.60	7.02	2.72	1.29	11.77	3.45	27.72
95th-Percentile Queue Length [ft/ln]	256.89	586.14	240.03	175.44	68.01	32.21	294.13	86.17	692.90

Movement, Approach, & Intersection Results

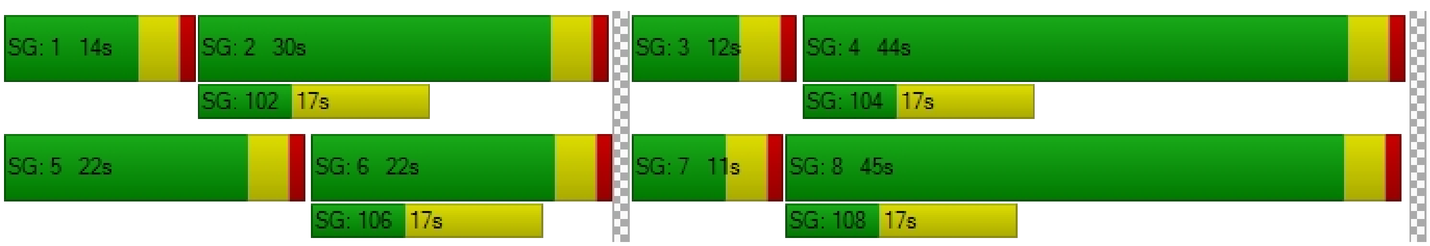
d_M, Delay for Movement [s/veh]	50.50	72.83	72.83	73.52	35.97	32.58	51.13	24.04	24.04	52.91	50.89	50.89
Movement LOS	D	E	E	E	D	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	65.67			51.02			25.70			51.07		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	50.75											
Intersection LOS	D											
Intersection V/C	0.951											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	2.242	2.452	2.523	2.534
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	360	820	800
d_b, Bicycle Delay [s]	27.38	33.62	17.41	18.00
I_b,int, Bicycle LOS Score for Intersection	2.743	2.258	2.289	2.876
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	72.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.041

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	187	74	10	95	37	66	78	29	24	46	5
Total Analysis Volume [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	56	38	0	39	21	0	22	32	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	64	5	52	18	28	7	17
g / C, Green / Cycle	0.15	0.53	0.04	0.43	0.15	0.23	0.06	0.14
(v / s)_i Volume / Saturation Flow Rate	0.13	0.59	0.02	0.30	0.15	0.24	0.05	0.11
s, saturation flow rate [veh/h]	1781	1781	1781	1782	1781	1785	1781	1837
c, Capacity [veh/h]	260	948	78	767	267	414	104	258
d1, Uniform Delay [s]	50.16	28.04	56.17	27.69	50.86	46.10	56.25	49.96
k, delay calibration	0.11	0.50	0.11	0.50	0.15	0.42	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.05	60.41	5.43	5.01	26.55	48.95	26.93	5.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	1.10	0.53	0.69	0.98	1.03	0.93	0.80
d, Delay for Lane Group [s/veh]	59.21	88.45	61.61	32.70	77.41	95.05	83.18	55.63
Lane Group LOS	E	F	E	C	E	F	F	E
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.05	39.40	1.29	12.32	9.47	17.24	3.59	6.12
50th-Percentile Queue Length [ft/ln]	176.13	985.10	32.17	307.92	236.83	431.09	89.68	152.94
95th-Percentile Queue Length [veh/ln]	11.40	53.61	2.32	18.07	14.52	24.50	6.46	10.17
95th-Percentile Queue Length [ft/ln]	284.96	1340.17	57.90	451.81	363.03	612.46	161.42	254.35

Movement, Approach, & Intersection Results

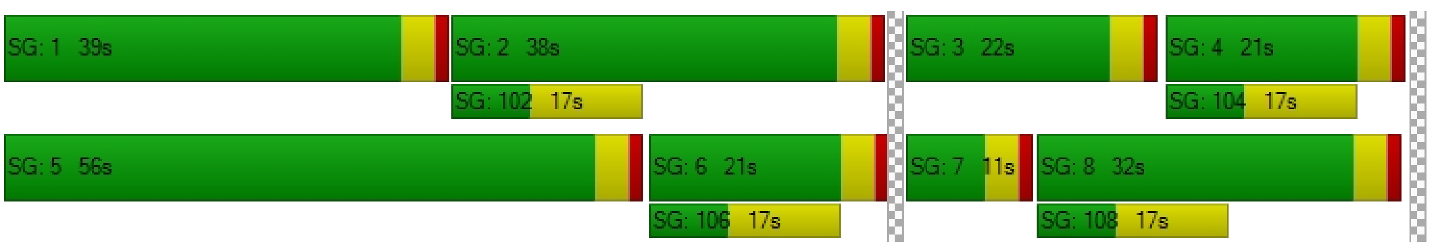
d_M, Delay for Movement [s/veh]	59.21	88.45	88.45	61.61	32.70	32.70	77.41	95.05	95.05	83.18	55.63	55.63
Movement LOS	E	F	F	E	C	C	E	F	F	F	E	E
d_A, Approach Delay [s/veh]	83.20			34.79			88.33			64.45		
Approach LOS	F			C			F			E		
d_I, Intersection Delay [s/veh]	72.72											
Intersection LOS	E											
Intersection V/C	1.041											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
I_p,int, Pedestrian LOS Score for Intersection	3.065	2.907	2.699	2.522
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	283	467	283
d_b, Bicycle Delay [s]	30.82	44.20	35.27	44.20
I_b,int, Bicycle LOS Score for Intersection	3.657	2.498	2.698	2.060
Bicycle LOS	D	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	588.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.025

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	710	188	282	170	162	1598
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	710	188	282	170	162	1598
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	178	47	71	43	41	400
Total Analysis Volume [veh/h]	710	188	282	170	162	1598
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	898	498	480	1598
Degree of Utilization, x	1.73	0.91	0.34	3.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	53.67	10.45	1.48	138.06
95th-Percentile Queue Length [ft]	1341.86	261.24	36.94	3451.45
Approach Delay [s/veh]	354.54	47.56	846.45	
Approach LOS	F	E	F	
Intersection Delay [s/veh]	588.31			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	61.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.180

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	14	62	37	5	6	9	129	7	15	59	27
Total Analysis Volume [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	494	429	432	546	423	463
Degree of Utilization, x	0.75	0.45	0.08	1.18	0.14	0.74

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	6.40	2.24	0.26	20.43	0.50	6.01
95th-Percentile Queue Length [ft]	159.94	56.04	6.38	510.65	12.48	150.30
Approach Delay [s/veh]	29.14	17.97	120.13		26.71	
Approach LOS	D	C	F		D	
Intersection Delay [s/veh]	61.31					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.694

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	18	806	0	0	302	305	159	810	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	18	806	0	0	302	305	159	810	0
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	1.0000	1.0000	1.0000	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	5	202	0	0	76	76	40	203	0
Total Analysis Volume [veh/h]	0	0	0	18	806	0	0	302	305	159	810	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	1.00	0.80	0.00	2.69	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	400.85	398.31	10000.0	10000.0	0.00
Movement LOS				A	A	A		F	F	F	F	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.55	39.55	124.05	124.05	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	988.63	988.63	3101.35	3101.35	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			399.57			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	4138.56											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	15.864

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	433	1686	215	0	0	0	0	305	0	0	427	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	433	1686	215	0	0	0	0	305	0	0	427	64
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	422	54	0	0	0	0	76	0	0	107	16
Total Analysis Volume [veh/h]	433	1686	215	0	0	0	0	305	0	0	427	64
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00	0.00	15.86	0.00	0.00	16.10	0.55
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	10000.0	0.00	0.00	7312.79	7208.03
Movement LOS	A	A	A				F	F			F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	40.92	40.92	0.00	0.00	60.72	60.72
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	1023.00	1023.00	0.00	0.00	1518.05	1518.05
d_A, Approach Delay [s/veh]	0.00			0.00			10000.00			7299.14		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	2119.45											
Intersection LOS	F											

Desert Hot Springs General Plan Update

Vistro File: G:\...\EGP AM.vistro

Scenario 2 Existing General Plan With Improvements

Report File: G:\...\Existing GP AM IMP.pdf

6/3/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	SB Left	0.843	13.0	B
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.842	34.8	C
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.496	18.3	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.779	17.6	B
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Signalized	HCM 6th Edition	WB Right	0.573	4.7	A
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.699	44.4	D
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.827	30.2	C
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	WB Left	0.566	15.2	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.596	25.4	C
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	Signalized	HCM 6th Edition	EB Left	0.716	31.6	C
12	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.657	21.6	C
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	SB Right	0.725	16.7	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.703	18.8	C
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.629	24.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.594	21.9	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Right	0.989	45.3	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.965	43.8	D

19	Palm Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.938	43.4	D
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.946	26.5	C
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.687	28.5	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.878	35.9	D
23	Mountain View Rd (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.996	52.4	D
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.874	25.1	D
101	SR-62 SB (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.982	20.3	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.843

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	2	133	503	0	0	0	0	0	0	70
Total Analysis Volume [veh/h]	0	433	7	533	2010	0	0	1	0	0	0	279
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap
Signal group	5	2	0	1	6	0	0	8	0	0	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	11	0	47	47	0	0	12	0	0	12	12
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	No
Maximum Recall	No	No		No	No			No			No	No
Pedestrian Recall	No	No		No	No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	35	35	15	50	50	8	8	27
g / C, Green / Cycle	0.00	0.51	0.51	0.21	0.71	0.71	0.11	0.11	0.38
(v / s)_i Volume / Saturation Flow Rate	0.00	0.09	0.00	0.15	0.56	0.00	0.00	0.00	0.18
s, saturation flow rate [veh/h]	1781	5094	1589	3459	3560	1589	1870	1870	1589
c, Capacity [veh/h]	3	2576	804	719	2535	1132	267	267	604
d1, Uniform Delay [s]	0.00	9.36	8.60	26.01	6.68	0.00	27.46	0.00	16.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.14	0.02	1.53	2.64	0.00	0.01	0.00	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.17	0.01	0.74	0.79	0.00	0.00	0.00	0.46
d, Delay for Lane Group [s/veh]	0.00	9.50	8.62	27.54	9.32	0.00	27.47	0.00	16.89
Lane Group LOS	A	A	A	C	A	A	C	A	B
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	0.84	0.04	3.75	4.54	0.00	0.01	0.00	2.82
50th-Percentile Queue Length [ft/ln]	0.00	21.05	1.01	93.65	113.42	0.00	0.37	0.00	70.50
95th-Percentile Queue Length [veh/ln]	0.00	1.52	0.07	6.74	8.03	0.00	0.03	0.00	5.08
95th-Percentile Queue Length [ft/ln]	0.00	37.90	1.82	168.57	200.75	0.00	0.66	0.00	126.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	9.50	8.62	27.54	9.32	0.00	27.47	27.47	27.47	0.00	0.00	16.89
Movement LOS	A	A	A	C	A	A	C	C	C	A	A	B
d_A, Approach Delay [s/veh]	9.49			13.14			27.47			16.89		
Approach LOS	A			B			C			B		
d_I, Intersection Delay [s/veh]	12.97											
Intersection LOS	B											
Intersection V/C	0.843											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	200	1229	229	229
d_b, Bicycle Delay [s]	28.35	5.21	27.46	27.46
I_b,int, Bicycle LOS Score for Intersection	1.802	3.658	1.561	2.020
Bicycle LOS	A	D	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	34.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	129	34	77	606	1	0	4	3	103	4	23
Total Analysis Volume [veh/h]	10	516	136	309	2423	3	1	15	12	413	15	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	67	67	0	0	11	0	0	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	50	50	23	71	71	4	4	27	27
g / C, Green / Cycle	0.02	0.41	0.41	0.19	0.59	0.59	0.04	0.04	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.09	0.17	0.48	0.00	0.01	0.01	0.24	0.06
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1864	1589	1784	1589
c, Capacity [veh/h]	31	2104	657	343	2995	935	68	58	401	358
d1, Uniform Delay [s]	58.28	23.01	22.61	47.38	19.44	10.21	56.24	56.18	46.53	38.30
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.42	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.79	0.28	0.71	8.72	2.47	0.01	1.77	1.76	60.10	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.25	0.21	0.90	0.81	0.00	0.24	0.21	1.07	0.26
d, Delay for Lane Group [s/veh]	64.07	23.29	23.33	56.10	21.91	10.22	58.01	57.94	106.62	38.68
Lane Group LOS	E	C	C	E	C	B	E	E	F	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.33	2.94	2.37	9.23	14.91	0.03	0.51	0.38	18.00	2.19
50th-Percentile Queue Length [ft/ln]	8.37	73.47	59.30	230.63	372.64	0.73	12.64	9.55	449.98	54.83
95th-Percentile Queue Length [veh/ln]	0.60	5.29	4.27	14.21	21.24	0.05	0.91	0.69	25.88	3.95
95th-Percentile Queue Length [ft/ln]	15.06	132.25	106.74	355.16	530.93	1.32	22.75	17.19	647.03	98.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.07	23.29	23.33	56.10	21.91	10.22	58.01	58.01	57.94	106.62	106.62	38.68
Movement LOS	E	C	C	E	C	B	E	E	E	F	F	D
d_A, Approach Delay [s/veh]	23.91			25.76			57.98			94.49		
Approach LOS	C			C			E			F		
d_I, Intersection Delay [s/veh]	34.75											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	1050	117	450
d_b, Bicycle Delay [s]	53.20	13.54	53.20	36.04
I_b,int, Bicycle LOS Score for Intersection	1.924	3.064	1.606	2.419
Bicycle LOS	A	C	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	140	168	222	274	296	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	140	168	222	274	296	140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	42	56	69	74	35
Total Analysis Volume [veh/h]	140	168	222	274	296	140
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	21	0	23	44	16	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	9	40	12	12
g / C, Green / Cycle	0.45	0.45	0.16	0.67	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.12	0.15	0.17	0.09
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	836	711	280	1254	350	312
d1, Uniform Delay [s]	9.94	10.28	24.41	3.82	23.31	21.31
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	0.78	5.05	0.40	5.68	1.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.24	0.79	0.22	0.85	0.45
d, Delay for Lane Group [s/veh]	10.37	11.06	29.47	4.22	28.99	22.32
Lane Group LOS	B	B	C	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.88	1.13	2.94	0.61	3.97	1.57
50th-Percentile Queue Length [ft/ln]	22.12	28.20	73.61	15.24	99.30	39.16
95th-Percentile Queue Length [veh/ln]	1.59	2.03	5.30	1.10	7.15	2.82
95th-Percentile Queue Length [ft/ln]	39.82	50.76	132.51	27.44	178.73	70.50

Movement, Approach, & Intersection Results

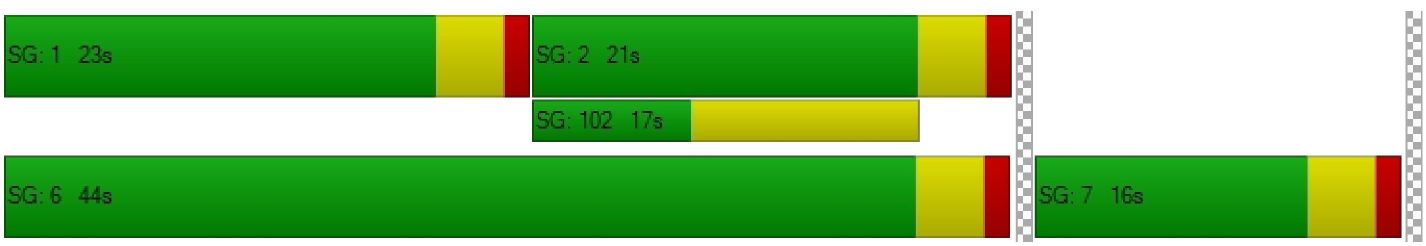
d_M, Delay for Movement [s/veh]	10.37	11.06	29.47	4.22	28.99	22.32
Movement LOS	B	B	C	A	C	C
d_A, Approach Delay [s/veh]	10.75		15.52		26.85	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	18.32					
Intersection LOS	B					
Intersection V/C	0.496					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.444
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.641	4.951	4.132
Bicycle LOS	E	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.779

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	65	33	15	107	26	13	43	59	61	46	4
Total Analysis Volume [veh/h]	134	259	132	59	428	103	51	170	237	245	183	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	31	0	0	31	0	0	29	0	0	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	R	C
C, Cycle Length [s]	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	27	25	25	25
g / C, Green / Cycle	0.45	0.45	0.45	0.45	0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.15	0.14	0.08	0.34	0.13	0.15	0.39
s, saturation flow rate [veh/h]	873	1870	1589	1742	1658	1589	1146
c, Capacity [veh/h]	242	841	715	849	766	664	571
d1, Uniform Delay [s]	18.59	10.59	9.95	13.59	11.59	12.01	18.99
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.29
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.84	0.95	0.57	4.66	0.21	0.33	6.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.31	0.18	0.69	0.29	0.36	0.78
d, Delay for Lane Group [s/veh]	27.43	11.54	10.52	18.26	11.80	12.34	25.05
Lane Group LOS	C	B	B	B	B	B	C
Critical Lane Group	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.04	1.78	0.86	5.62	1.48	1.65	5.70
50th-Percentile Queue Length [ft/ln]	50.92	44.39	21.42	140.47	36.90	41.29	142.52
95th-Percentile Queue Length [veh/ln]	3.67	3.20	1.54	9.51	2.66	2.97	9.62
95th-Percentile Queue Length [ft/ln]	91.65	79.90	38.56	237.66	66.42	74.32	240.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.43	11.54	10.52	18.26	18.26	18.26	11.80	11.80	12.34	25.05	25.05	25.05
Movement LOS	C	B	B	B	B	B	B	B	B	C	C	C
d_A, Approach Delay [s/veh]	15.34			18.26			12.08			25.05		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	17.59											
Intersection LOS	B											
Intersection V/C	0.779											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21	10.21
I_b,int, Bicycle LOS Score for Intersection	2.426	2.533	2.315	2.294
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┤┌			┤┌			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	120	13	15	208	0	0	0	0	7	0	11
Total Analysis Volume [veh/h]	0	478	52	58	832	0	0	0	0	28	0	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	58	0	0	58	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	C	C
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	57	57	57	57	5	5
g / C, Green / Cycle	0.81	0.81	0.81	0.81	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.26	0.03	0.50	0.00	0.00	0.04
s, saturation flow rate [veh/h]	1870	1589	1792	1589	1397	1595
c, Capacity [veh/h]	1566	1287	1507	1287	157	193
d1, Uniform Delay [s]	1.70	1.31	2.41	0.00	0.00	31.17
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	0.06	1.71	0.00	0.00	1.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.04	0.59	0.00	0.00	0.36
d, Delay for Lane Group [s/veh]	2.20	1.37	4.12	0.00	0.00	32.32
Lane Group LOS	A	A	A	A	A	C
Critical Lane Group	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.22	0.02	0.74	0.00	0.00	1.16
50th-Percentile Queue Length [ft/ln]	5.48	0.53	18.54	0.00	0.00	29.10
95th-Percentile Queue Length [veh/ln]	0.39	0.04	1.33	0.00	0.00	2.10
95th-Percentile Queue Length [ft/ln]	9.87	0.95	33.37	0.00	0.00	52.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.20	2.20	1.37	4.12	4.12	0.00	0.00	0.00	0.00	32.32	32.32	32.32
Movement LOS	A	A	A	A	A	A	A	A	A	C	C	C
d_A, Approach Delay [s/veh]	2.12			4.12			0.00			32.32		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	4.73											
Intersection LOS	A											
Intersection V/C	0.573											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1543	1543	229	229
d_b, Bicycle Delay [s]	1.83	1.83	27.46	27.46
I_b,int, Bicycle LOS Score for Intersection	2.434	3.028	1.560	1.675
Bicycle LOS	B	C	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	44.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	132	35	25	259	26	3	66	24	99	109	24
Total Analysis Volume [veh/h]	40	529	141	101	1034	103	13	263	95	395	437	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	60	60	0	21	20	0	29	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	54	54	9	58	58	3	16	16	25	38	38
g / C, Green / Cycle	0.04	0.45	0.45	0.07	0.48	0.48	0.02	0.13	0.13	0.21	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.09	0.06	0.29	0.06	0.01	0.14	0.06	0.22	0.23	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	78	1615	721	129	1717	766	38	248	210	371	597	508
d1, Uniform Delay [s]	56.15	21.04	19.66	54.78	22.69	17.22	57.91	52.08	48.06	47.52	36.29	29.62
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.13	0.11	0.37	0.26	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.12	0.54	0.61	9.99	1.57	0.36	5.16	47.09	1.51	58.31	4.16	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.33	0.20	0.78	0.60	0.13	0.34	1.06	0.45	1.06	0.73	0.19
d, Delay for Lane Group [s/veh]	61.27	21.59	20.27	64.77	24.27	17.58	63.06	99.18	49.57	105.83	40.45	29.80
Lane Group LOS	E	C	C	E	C	B	E	F	D	F	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.25	4.53	2.32	3.24	10.03	1.54	0.43	10.34	2.60	16.50	11.32	1.95
50th-Percentile Queue Length [ft/ln]	31.29	113.30	57.95	81.00	250.65	38.41	10.74	258.61	65.09	412.51	283.09	48.79
95th-Percentile Queue Length [veh/ln]	2.25	8.02	4.17	5.83	15.22	2.77	0.77	16.04	4.69	23.96	16.84	3.51
95th-Percentile Queue Length [ft/ln]	56.32	200.59	104.31	145.79	380.47	69.14	19.33	400.96	117.16	599.10	421.06	87.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.27	21.59	20.27	64.77	24.27	17.58	63.06	99.18	49.57	105.83	40.45	29.80
Movement LOS	E	C	C	E	C	B	E	F	D	F	D	C
d_A, Approach Delay [s/veh]	23.56			27.01			85.21			67.14		
Approach LOS	C			C			F			E		
d_I, Intersection Delay [s/veh]	44.38											
Intersection LOS	D											
Intersection V/C	0.699											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	933	267	400
d_b, Bicycle Delay [s]	53.20	17.07	45.07	38.40
I_b,int, Bicycle LOS Score for Intersection	2.145	2.581	2.172	3.092
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	30.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	159	15	43	532	24	27	0	21	84	17	135
Total Analysis Volume [veh/h]	26	635	60	170	2129	95	107	0	84	337	69	538
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	34	44	0	12	21	0	14	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	38	38	11	45	45	7	16	16	10	19	19
g / C, Green / Cycle	0.04	0.42	0.42	0.12	0.50	0.50	0.08	0.18	0.18	0.11	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.13	0.10	0.41	0.42	0.06	0.00	0.05	0.10	0.18	0.19
s, saturation flow rate [veh/h]	1781	3560	1789	1781	3560	1830	1781	1870	1589	3459	1645	1589
c, Capacity [veh/h]	68	1490	749	210	1775	912	136	327	278	385	345	333
d1, Uniform Delay [s]	42.31	17.50	17.53	38.75	19.25	19.37	40.87	0.00	32.40	39.40	34.53	34.77
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.12	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.56	0.54	1.09	7.27	4.53	8.80	9.49	0.00	0.61	6.32	8.38	11.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.31	0.31	0.81	0.83	0.83	0.79	0.00	0.30	0.87	0.88	0.91
d, Delay for Lane Group [s/veh]	45.87	18.04	18.62	46.02	23.79	28.17	50.36	0.00	33.00	45.72	42.90	46.29
Lane Group LOS	D	B	B	D	C	C	D	A	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.60	2.90	3.07	3.82	11.74	13.31	2.66	0.00	1.62	3.95	7.09	7.37
50th-Percentile Queue Length [ft/ln]	14.90	72.54	76.67	95.41	293.54	332.87	66.54	0.00	40.49	98.75	177.33	184.29
95th-Percentile Queue Length [veh/ln]	1.07	5.22	5.52	6.87	17.36	19.30	4.79	0.00	2.92	7.11	11.46	11.82
95th-Percentile Queue Length [ft/ln]	26.81	130.58	138.01	171.73	434.03	482.48	119.77	0.00	72.88	177.74	286.52	295.60

Movement, Approach, & Intersection Results

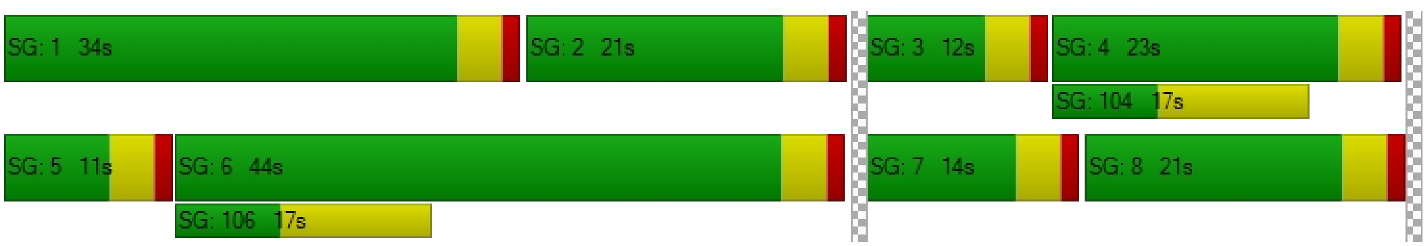
d_M, Delay for Movement [s/veh]	45.87	18.20	18.62	46.02	25.16	28.17	50.36	0.00	33.00	45.72	42.90	44.81
Movement LOS	D	B	B	D	C	C	D	A	C	D	D	D
d_A, Approach Delay [s/veh]	19.23			26.76			42.73			45.00		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	30.25											
Intersection LOS	C											
Intersection V/C	0.827											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.546	2.223	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	378	889	378	422
d_b, Bicycle Delay [s]	29.61	13.89	29.61	28.01
I_b,int, Bicycle LOS Score for Intersection	1.956	2.876	1.875	3.117
Bicycle LOS	A	C	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	11	31	6	32	7	4	40	67	66	51	6
Total Analysis Volume [veh/h]	159	42	122	22	128	26	16	161	266	265	205	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	454	517	435	461	504	459	490	540	468	500	553
Degree of Utilization, x	0.35	0.32	0.05	0.28	0.05	0.03	0.33	0.49	0.57	0.41	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.55	1.35	0.16	1.12	0.16	0.11	1.42	2.70	3.44	1.98	0.12
95th-Percentile Queue Length [ft]	38.80	33.77	3.98	28.06	4.07	2.70	35.51	67.51	86.11	49.45	3.10
Approach Delay [s/veh]	13.83		12.74			14.75			17.34		
Approach LOS	B		B			B			C		
Intersection Delay [s/veh]	15.18										
Intersection LOS	C										

Intersection Level Of Service Report

Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	25.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	41	32	34	118	14	18	69	36	44	66	25
Total Analysis Volume [veh/h]	39	162	129	134	470	56	71	277	142	177	265	98
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	16	16	0	11	14	0	19	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	19	6	22	5	11	11	8	14	14
g / C, Green / Cycle	0.06	0.32	0.10	0.36	0.08	0.19	0.19	0.13	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.17	0.08	0.29	0.04	0.15	0.09	0.10	0.14	0.06
s, saturation flow rate [veh/h]	1781	1734	1781	1835	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	102	546	188	666	147	348	295	228	433	368
d1, Uniform Delay [s]	27.33	16.96	26.03	17.10	26.38	23.40	21.89	25.40	20.70	18.93
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	3.69	4.99	9.23	2.46	4.20	1.21	5.65	1.41	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.53	0.71	0.79	0.48	0.80	0.48	0.78	0.61	0.27
d, Delay for Lane Group [s/veh]	29.67	20.65	31.03	26.33	28.84	27.60	23.10	31.05	22.11	19.32
Lane Group LOS	C	C	C	C	C	C	C	C	C	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.53	3.14	1.91	6.90	0.95	3.59	1.63	2.47	2.96	0.98
50th-Percentile Queue Length [ft/ln]	13.35	78.60	47.71	172.45	23.83	89.78	40.68	61.87	74.02	24.59
95th-Percentile Queue Length [veh/ln]	0.96	5.66	3.43	11.21	1.72	6.46	2.93	4.45	5.33	1.77
95th-Percentile Queue Length [ft/ln]	24.02	141.47	85.87	280.13	42.89	161.61	73.23	111.36	133.23	44.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.67	20.65	20.65	31.03	26.33	26.33	28.84	27.60	23.10	31.05	22.11	19.32
Movement LOS	C	C	C	C	C	C	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	21.72			27.28			26.47			24.53		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.44											
Intersection LOS	C											
Intersection V/C	0.596											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	400	333	600
d_b, Bicycle Delay [s]	23.41	19.20	20.83	14.70
I_b,int, Bicycle LOS Score for Intersection	2.104	2.649	2.368	2.451
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	Signalized	Delay (sec / veh):	31.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.716

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	67	22	26	190	8	1	5	28	65	17	8
Total Analysis Volume [veh/h]	51	267	88	104	758	30	5	21	113	259	69	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	30	40	0	11	12	0	17	18	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	37	6	38	1	8	13	20
g / C, Green / Cycle	0.06	0.46	0.08	0.48	0.01	0.10	0.16	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.20	0.06	0.42	0.00	0.08	0.15	0.06
s, saturation flow rate [veh/h]	1781	1792	1781	1858	1781	1628	1781	1771
c, Capacity [veh/h]	106	824	141	891	17	160	290	445
d1, Uniform Delay [s]	36.43	14.55	36.04	18.83	39.37	35.47	32.85	23.80
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.31	1.64	7.29	12.50	9.13	10.93	9.48	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.43	0.74	0.88	0.29	0.84	0.89	0.23
d, Delay for Lane Group [s/veh]	39.74	16.19	43.33	31.33	48.50	46.40	42.33	24.05
Lane Group LOS	D	B	D	C	D	D	D	C
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.98	3.92	2.10	13.44	0.14	2.99	5.32	1.43
50th-Percentile Queue Length [ft/ln]	24.61	97.88	52.57	336.05	3.48	74.73	133.11	35.76
95th-Percentile Queue Length [veh/ln]	1.77	7.05	3.79	19.45	0.25	5.38	9.11	2.57
95th-Percentile Queue Length [ft/ln]	44.30	176.19	94.63	486.37	6.27	134.51	227.72	64.37

Movement, Approach, & Intersection Results

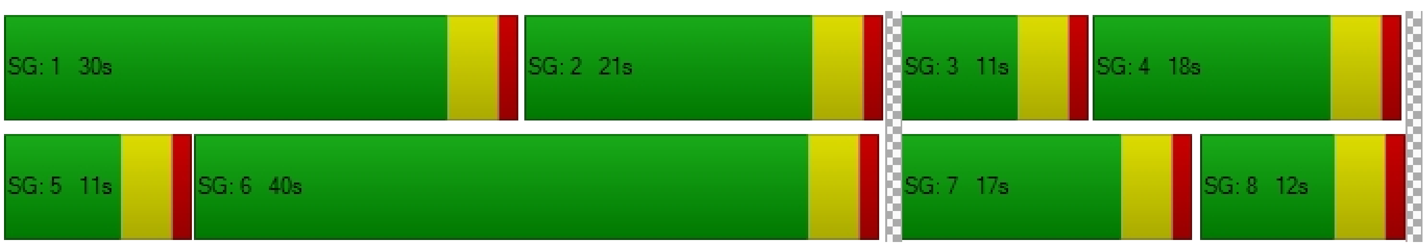
d_M, Delay for Movement [s/veh]	39.74	16.19	16.19	43.33	31.33	31.33	48.50	46.40	46.40	42.33	24.05	24.05
Movement LOS	D	B	B	D	C	C	D	D	D	D	C	C
d_A, Approach Delay [s/veh]		19.15			32.73			46.48			37.20	
Approach LOS		B			C			D			D	
d_I, Intersection Delay [s/veh]	31.62											
Intersection LOS	C											
Intersection V/C	0.716											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	425	900	200	350
d_b, Bicycle Delay [s]	24.81	12.10	32.40	27.23
I_b,int, Bicycle LOS Score for Intersection	2.230	3.031	1.789	2.154
Bicycle LOS	B	C	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	21.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.657

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	21	15	84	97	92	29	39	32	64	138	53
Total Analysis Volume [veh/h]	48	82	60	334	387	369	114	156	129	254	553	213
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	2	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2									
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	7	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	30	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	12	12	0	12	0	31	29	0	19	17	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No		No		No	No		No	No	
Maximum Recall		No	No		No		No	No		No	No	
Pedestrian Recall		No	No		No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	22	22	22	22	6	20	7	20	20
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.36	0.36	0.10	0.33	0.12	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.05	0.04	0.04	0.25	0.21	0.23	0.06	0.16	0.07	0.30	0.13
s, saturation flow rate [veh/h]	996	1870	1589	1316	1870	1589	1781	1732	3459	1870	1589
c, Capacity [veh/h]	271	670	569	505	670	569	180	565	402	638	542
d1, Uniform Delay [s]	22.74	12.96	12.88	20.14	15.62	16.14	25.97	16.36	25.35	18.53	15.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.42	0.37	0.37	6.65	3.61	5.62	3.65	0.70	1.64	3.73	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.12	0.11	0.66	0.58	0.65	0.63	0.50	0.63	0.87	0.39
d, Delay for Lane Group [s/veh]	24.16	13.33	13.25	26.79	19.23	21.76	29.62	17.06	26.99	22.26	15.54
Lane Group LOS	C	B	B	C	B	C	C	B	C	C	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.67	0.74	0.55	4.40	3.93	4.09	1.52	2.58	1.56	6.15	1.79
50th-Percentile Queue Length [ft/ln]	16.87	18.47	13.64	110.10	98.13	102.34	38.04	64.53	39.09	153.65	44.70
95th-Percentile Queue Length [veh/ln]	1.21	1.33	0.98	7.85	7.07	7.37	2.74	4.65	2.81	10.21	3.22
95th-Percentile Queue Length [ft/ln]	30.36	33.25	24.55	196.15	176.63	184.21	68.48	116.15	70.36	255.29	80.46

Movement, Approach, & Intersection Results

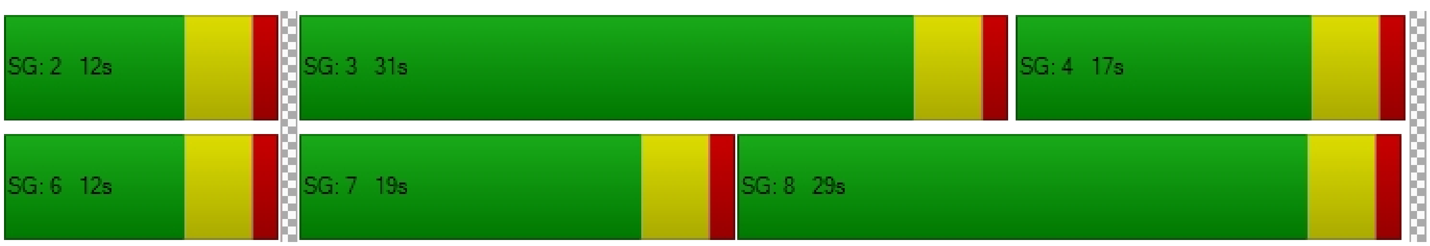
d_M, Delay for Movement [s/veh]	24.16	13.33	13.25	26.79	19.23	21.76	29.62	17.06	17.06	26.99	22.26	15.54
Movement LOS	C	B	B	C	B	C	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	16.04			22.40			20.65			22.04		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	21.56											
Intersection LOS	C											
Intersection V/C	0.657											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	267	267	833	433
d_b, Bicycle Delay [s]	22.53	22.53	10.21	18.41
I_b,int, Bicycle LOS Score for Intersection	1.873	3.358	2.218	3.243
Bicycle LOS	A	C	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.725

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	52	0	73	14	48	0	0	65	7
Total Analysis Volume [veh/h]	2	1	1	209	1	291	54	191	1	1	259	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	560	691	518	559	612
Degree of Utilization, x	0.01	0.72	0.10	0.34	0.47

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	6.25	0.35	1.52	2.48
95th-Percentile Queue Length [ft]	0.54	156.34	8.68	37.99	61.95
Approach Delay [s/veh]	9.47	20.66	12.03		13.92
Approach LOS	A	C	B		B
Intersection Delay [s/veh]	16.71				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.703

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	91	4	6	0	7	1	1	9	98	19	11	1
Total Analysis Volume [veh/h]	362	15	24	1	26	4	4	36	390	77	43	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	515	555	623	471	521	548	618	480	556
Degree of Utilization, x	0.70	0.03	0.04	0.06	0.01	0.07	0.63	0.25	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.51	0.08	0.12	0.18	0.02	0.24	4.44	0.98	0.01
95th-Percentile Queue Length [ft]	137.87	2.08	3.00	4.54	0.58	5.89	110.95	24.48	0.27
Approach Delay [s/veh]	23.08			10.66		17.19		12.63	
Approach LOS	C			B		C		B	
Intersection Delay [s/veh]	18.82								
Intersection LOS	C								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	100	18	26	146	13	9	71	47	20	62	23
Total Analysis Volume [veh/h]	212	400	72	103	585	51	36	285	187	81	248	93
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	26	26	6	24	24	3	11	11	5	13	13
g / C, Green / Cycle	0.12	0.40	0.40	0.09	0.37	0.37	0.05	0.17	0.17	0.08	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.12	0.13	0.13	0.06	0.17	0.17	0.02	0.13	0.14	0.05	0.09	0.10
s, saturation flow rate [veh/h]	1781	1870	1772	1781	1870	1818	1781	1870	1629	1781	1870	1701
c, Capacity [veh/h]	221	751	712	165	693	674	96	328	286	151	386	351
d1, Uniform Delay [s]	28.44	13.41	13.42	28.51	15.61	15.62	29.82	25.60	25.72	28.64	22.69	22.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	20.20	1.13	1.20	3.81	2.23	2.30	2.41	3.60	4.64	2.93	0.84	0.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.96	0.32	0.32	0.62	0.46	0.47	0.38	0.76	0.78	0.54	0.46	0.47
d, Delay for Lane Group [s/veh]	48.63	14.55	14.63	32.32	17.85	17.92	32.23	29.20	30.36	31.57	23.54	23.74
Lane Group LOS	D	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.31	2.37	2.27	1.63	3.64	3.56	0.58	3.72	3.43	1.27	2.28	2.15
50th-Percentile Queue Length [ft/ln]	107.64	59.23	56.75	40.77	91.06	89.01	14.49	92.96	85.65	31.64	56.95	53.77
95th-Percentile Queue Length [veh/ln]	7.71	4.26	4.09	2.94	6.56	6.41	1.04	6.69	6.17	2.28	4.10	3.87
95th-Percentile Queue Length [ft/ln]	192.72	106.61	102.15	73.39	163.92	160.21	26.09	167.33	154.17	56.96	102.51	96.79

Movement, Approach, & Intersection Results

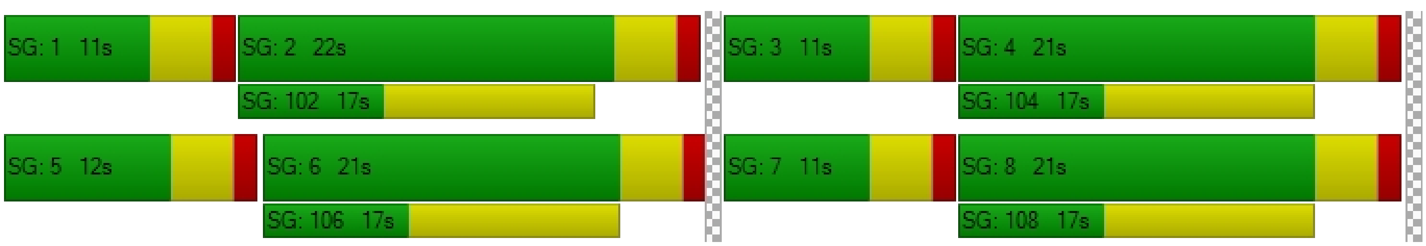
d_M, Delay for Movement [s/veh]	48.63	14.58	14.63	32.32	17.88	17.92	32.23	29.34	30.36	31.57	23.60	23.74
Movement LOS	D	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	25.14			19.90			29.92			25.16		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	24.53											
Intersection LOS	C											
Intersection V/C	0.629											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.632	2.570	2.628	2.483
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.124	2.169	1.979	1.908
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.594

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	160	12	24	181	19	14	45	34	33	60	27
Total Analysis Volume [veh/h]	114	641	48	94	723	76	54	179	134	133	240	106
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	28	28	6	28	28	4	9	9	6	11	11
g / C, Green / Cycle	0.09	0.43	0.43	0.09	0.43	0.43	0.07	0.13	0.13	0.10	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.19	0.05	0.22	0.22	0.03	0.09	0.09	0.07	0.13	0.07
s, saturation flow rate [veh/h]	1781	1870	1825	1781	1870	1808	1781	1870	1614	1781	1870	1589
c, Capacity [veh/h]	171	805	786	160	794	768	124	251	217	178	308	262
d1, Uniform Delay [s]	28.51	13.00	13.01	28.54	13.79	13.79	29.15	26.80	26.94	28.58	26.11	24.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.47	1.69	1.74	3.39	2.35	2.43	2.42	2.84	3.84	6.14	4.25	1.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.43	0.43	0.59	0.51	0.51	0.44	0.65	0.69	0.75	0.78	0.40
d, Delay for Lane Group [s/veh]	32.98	14.70	14.75	31.93	16.14	16.22	31.56	29.64	30.79	34.72	30.36	25.39
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.83	3.44	3.37	1.48	4.28	4.16	0.82	2.37	2.22	2.17	3.61	1.41
50th-Percentile Queue Length [ft/ln]	45.68	86.07	84.29	36.95	107.06	103.98	20.58	59.30	55.60	54.18	90.23	35.30
95th-Percentile Queue Length [veh/ln]	3.29	6.20	6.07	2.66	7.68	7.49	1.48	4.27	4.00	3.90	6.50	2.54
95th-Percentile Queue Length [ft/ln]	82.23	154.92	151.72	66.50	191.91	187.17	37.05	106.75	100.09	97.53	162.42	63.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.98	14.72	14.75	31.93	16.17	16.22	31.56	29.74	30.79	34.72	30.36	25.39
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]		17.31			17.84			30.39			30.47	
Approach LOS		B			B			C			C	
d_I, Intersection Delay [s/veh]	21.86											
Intersection LOS	C											
Intersection V/C	0.594											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.775	2.667	2.405	2.490
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.222	2.296	1.862	2.350
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	45.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.989

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	163	52	20	244	8	14	53	103	71	41	15
Total Analysis Volume [veh/h]	199	653	207	79	974	31	55	213	410	285	162	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	11	27	0	14	26	0	18	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	27	27	6	23	23	5	22	22	14	31	31
g / C, Green / Cycle	0.12	0.32	0.32	0.07	0.27	0.27	0.06	0.26	0.26	0.16	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.13	0.04	0.27	0.02	0.03	0.11	0.26	0.16	0.09	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	210	1141	509	125	971	433	107	480	408	293	675	574
d1, Uniform Delay [s]	37.26	24.05	22.58	38.49	30.93	22.95	38.75	26.52	31.61	35.32	19.00	18.02
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.83	2.09	2.40	5.24	29.73	0.32	3.74	0.64	32.96	18.42	0.18	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.57	0.41	0.63	1.00	0.07	0.51	0.44	1.01	0.97	0.24	0.10
d, Delay for Lane Group [s/veh]	56.09	26.13	24.97	43.73	60.66	23.27	42.49	27.16	64.57	53.74	19.18	18.10
Lane Group LOS	E	C	C	D	F	C	D	C	F	D	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.02	5.42	3.37	1.74	13.41	0.48	1.18	3.50	11.53	7.14	2.15	0.74
50th-Percentile Queue Length [ft/ln]	125.45	135.53	84.23	43.51	335.22	12.10	29.55	87.46	288.13	178.49	53.84	18.62
95th-Percentile Queue Length [veh/ln]	8.69	9.24	6.06	3.13	19.46	0.87	2.13	6.30	17.14	11.52	3.88	1.34
95th-Percentile Queue Length [ft/ln]	217.30	230.99	151.61	78.32	486.38	21.78	53.19	157.42	428.56	288.05	96.91	33.51

Movement, Approach, & Intersection Results

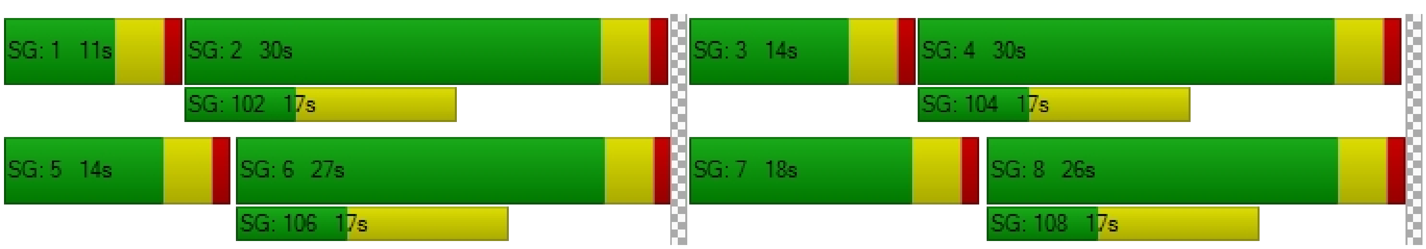
d_M, Delay for Movement [s/veh]	56.09	26.13	24.97	43.73	60.66	23.27	42.49	27.16	64.57	53.74	19.18	18.10
Movement LOS	E	C	C	D	F	C	D	C	F	D	B	B
d_A, Approach Delay [s/veh]	31.54			58.36			51.03			38.52		
Approach LOS	C			E			D			D		
d_I, Intersection Delay [s/veh]	45.31											
Intersection LOS	D											
Intersection V/C	0.989											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.165	2.800	2.575	2.413
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	612	541	518	612
d_b, Bicycle Delay [s]	20.48	22.61	23.35	20.48
I_b,int, Bicycle LOS Score for Intersection	2.433	2.454	2.678	2.395
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	43.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.965

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	135	18	21	354	43	29	53	97	89	122	31
Total Analysis Volume [veh/h]	128	540	73	84	1415	173	117	213	388	356	489	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	28	0	12	29	0	23	27	0	23	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	26	26	6	25	25	8	23	23	19	34	34
g / C, Green / Cycle	0.08	0.29	0.29	0.07	0.28	0.28	0.08	0.25	0.25	0.21	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.05	0.05	0.28	0.11	0.07	0.11	0.24	0.20	0.26	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	139	1027	458	122	1421	443	149	476	404	376	713	606
d1, Uniform Delay [s]	41.24	26.88	23.90	40.99	32.42	26.27	40.44	28.25	33.12	35.02	23.32	18.66
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.25	0.16	0.22	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	20.73	1.93	0.74	6.70	22.96	2.57	8.61	0.66	23.54	16.03	2.41	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.53	0.16	0.69	1.00	0.39	0.78	0.45	0.96	0.95	0.69	0.20
d, Delay for Lane Group [s/veh]	61.97	28.81	24.64	47.69	55.38	28.85	49.05	28.91	56.66	51.05	25.73	18.82
Lane Group LOS	E	C	C	D	E	C	D	C	E	D	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.39	4.59	1.13	1.93	12.18	3.04	2.72	3.60	10.14	8.66	8.04	1.54
50th-Percentile Queue Length [ft/ln]	84.85	114.76	28.30	48.16	304.48	75.99	68.08	90.00	253.58	216.56	201.12	38.43
95th-Percentile Queue Length [veh/ln]	6.11	8.10	2.04	3.47	17.90	5.47	4.90	6.48	15.37	13.49	12.70	2.77
95th-Percentile Queue Length [ft/ln]	152.72	202.60	50.94	86.69	447.56	136.78	122.54	161.99	384.16	337.23	317.41	69.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.97	28.81	24.64	47.69	55.38	28.85	49.05	28.91	56.66	51.05	25.73	18.82
Movement LOS	E	C	C	D	E	C	D	C	E	D	C	B
d_A, Approach Delay [s/veh]	34.13			52.25			47.19			34.18		
Approach LOS	C			D			D			C		
d_I, Intersection Delay [s/veh]	43.82											
Intersection LOS	D											
Intersection V/C	0.965											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
I_p,int, Pedestrian LOS Score for Intersection	3.432	3.273	2.902	2.777
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	556	511	511
d_b, Bicycle Delay [s]	24.20	23.47	24.94	24.94
I_b,int, Bicycle LOS Score for Intersection	2.171	2.479	2.744	3.155
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	43.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.938

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	181	16	3	569	10	22	42	24	97	43	1
Total Analysis Volume [veh/h]	77	724	64	11	2275	41	89	166	97	388	171	5
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	69	0	0	69	0	19	17	0	14	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	65	65	65	65	65	65	6	13	10	16
g / C, Green / Cycle	0.65	0.65	0.65	0.65	0.65	0.65	0.06	0.13	0.10	0.16
(v / s)_i Volume / Saturation Flow Rate	0.47	0.20	0.04	0.02	0.64	0.03	0.05	0.15	0.11	0.09
s, saturation flow rate [veh/h]	164	3560	1589	729	3560	1589	1781	1756	3459	1861
c, Capacity [veh/h]	76	2320	1036	470	2320	1036	115	225	347	305
d1, Uniform Delay [s]	49.94	7.62	6.33	10.49	16.81	6.23	46.08	43.59	44.99	38.59
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	107.37	0.35	0.11	0.09	14.66	0.07	10.68	86.18	62.85	1.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.01	0.31	0.06	0.02	0.98	0.04	0.78	1.17	1.12	0.58
d, Delay for Lane Group [s/veh]	157.31	7.97	6.44	10.58	31.47	6.30	56.76	129.77	107.85	40.30
Lane Group LOS	F	A	A	B	C	A	E	F	F	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.05	2.59	0.40	0.11	21.89	0.25	2.44	10.72	7.15	3.96
50th-Percentile Queue Length [ft/ln]	101.24	64.73	9.91	2.64	547.25	6.25	61.03	267.94	178.80	99.05
95th-Percentile Queue Length [veh/ln]	7.29	4.66	0.71	0.19	29.56	0.45	4.39	17.14	12.02	7.13
95th-Percentile Queue Length [ft/ln]	182.23	116.52	17.83	4.76	739.07	11.25	109.85	428.47	300.48	178.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	157.31	7.97	6.44	10.58	31.47	6.30	56.76	129.77	129.77	107.85	40.30	40.30
Movement LOS	F	A	A	B	C	A	E	F	F	F	D	D
d_A, Approach Delay [s/veh]	21.15			30.93			111.31			86.77		
Approach LOS	C			C			F			F		
d_I, Intersection Delay [s/veh]	43.42											
Intersection LOS	D											
Intersection V/C	0.938											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1300	1300	260	160
d_b, Bicycle Delay [s]	6.13	6.13	37.85	42.32
I_b,int, Bicycle LOS Score for Intersection	2.273	3.479	2.140	2.490
Bicycle LOS	B	C	B	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.946

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	194	14	61	640	0	0	0	0	33	0	26
Total Analysis Volume [veh/h]	0	776	55	245	2560	0	0	0	0	130	0	104
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	21	0	63	73	0	0	21	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	66	66	10	76	76	17	17
g / C, Green / Cycle	0.00	0.63	0.63	0.09	0.72	0.72	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.00	0.22	0.22	0.07	0.68	0.68	0.00	0.15
s, saturation flow rate [veh/h]	1781	1870	1827	3459	1870	1870	1657	1524
c, Capacity [veh/h]	2	1176	1148	328	1351	1351	303	301
d1, Uniform Delay [s]	0.00	9.34	9.34	46.30	12.83	12.83	0.00	43.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.85	0.87	3.42	14.82	14.82	0.00	4.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.36	0.36	0.75	0.95	0.95	0.00	0.78
d, Delay for Lane Group [s/veh]	0.00	10.19	10.21	49.72	27.65	27.65	0.00	47.81
Lane Group LOS	A	B	B	D	C	C	A	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	3.84	3.76	3.08	21.09	21.09	0.00	6.01
50th-Percentile Queue Length [ft/ln]	0.00	95.97	93.97	76.92	527.29	527.29	0.00	150.28
95th-Percentile Queue Length [veh/ln]	0.00	6.91	6.77	5.54	28.62	28.62	0.00	10.03
95th-Percentile Queue Length [ft/ln]	0.00	172.74	169.15	138.46	715.59	715.59	0.00	250.80

Movement, Approach, & Intersection Results

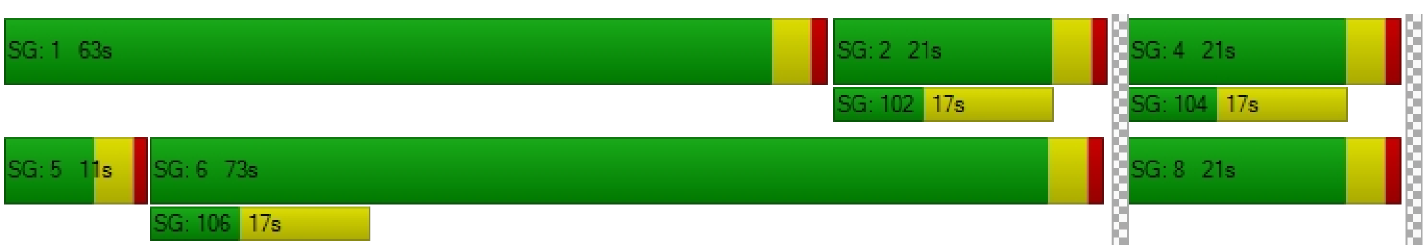
d_M, Delay for Movement [s/veh]	0.00	10.20	10.21	49.72	27.65	27.65	0.00	0.00	0.00	47.81	47.81	47.81
Movement LOS	A	B	B	D	C	C	A	A	A	D	D	D
d_A, Approach Delay [s/veh]	10.20			29.58			0.00			47.81		
Approach LOS	B			C			A			D		
d_I, Intersection Delay [s/veh]	26.52											
Intersection LOS	C											
Intersection V/C	0.946											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.628	1.722	2.377
Crosswalk LOS	F	D	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	324	1314	324	324
d_b, Bicycle Delay [s]	36.88	6.17	36.88	36.88
I_b,int, Bicycle LOS Score for Intersection	2.245	3.874	1.560	1.946
Bicycle LOS	B	D	A	A

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.687

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	40	9	62	67	8	6	66	36	23	72	34
Total Analysis Volume [veh/h]	103	161	37	246	266	32	23	265	142	92	289	135
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	21	0	16	21	0	11	22	0	11	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	19	11	24	24	3	18	6	21
g / C, Green / Cycle	0.09	0.27	0.16	0.35	0.35	0.04	0.25	0.08	0.30
(v / s)_i Volume / Saturation Flow Rate	0.06	0.11	0.14	0.14	0.02	0.01	0.23	0.05	0.24
s, saturation flow rate [veh/h]	1781	1810	1781	1870	1589	1781	1762	1781	1770
c, Capacity [veh/h]	155	491	290	648	551	65	448	149	534
d1, Uniform Delay [s]	31.00	20.90	28.50	17.43	15.26	32.94	25.34	31.01	22.48
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.83	2.46	6.87	1.92	0.20	3.21	7.62	4.10	3.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.40	0.85	0.41	0.06	0.35	0.91	0.62	0.79
d, Delay for Lane Group [s/veh]	35.83	23.36	35.37	19.35	15.46	36.15	32.96	35.11	25.69
Lane Group LOS	D	C	D	B	B	D	C	D	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.86	2.90	4.32	3.32	0.34	0.42	6.85	1.58	6.18
50th-Percentile Queue Length [ft/ln]	46.48	72.45	107.89	83.09	8.61	10.43	171.34	39.39	154.62
95th-Percentile Queue Length [veh/ln]	3.35	5.22	7.72	5.98	0.62	0.75	11.15	2.84	10.26
95th-Percentile Queue Length [ft/ln]	83.67	130.41	193.07	149.56	15.50	18.77	278.67	70.90	256.58

Movement, Approach, & Intersection Results

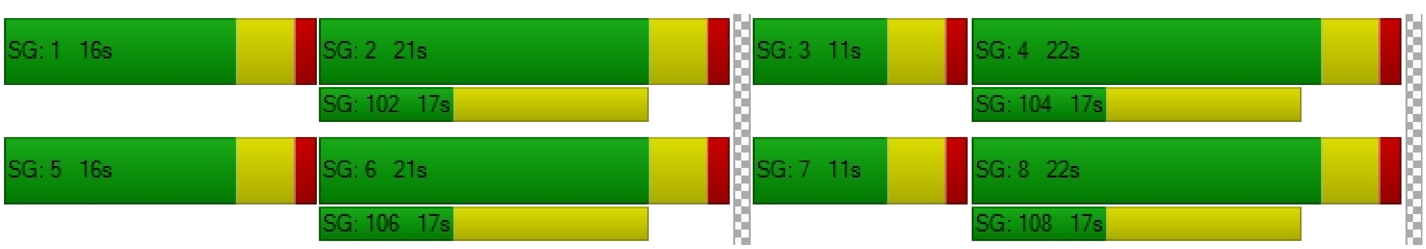
d_M, Delay for Movement [s/veh]	35.83	23.36	23.36	35.37	19.35	15.46	36.15	32.96	32.96	35.11	25.69	25.69
Movement LOS	D	C	C	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	27.63			26.36			33.13			27.37		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	28.49											
Intersection LOS	C											
Intersection V/C	0.687											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.280	2.363	2.395	2.387
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	514	514
d_b, Bicycle Delay [s]	20.06	20.06	19.31	19.31
I_b,int, Bicycle LOS Score for Intersection	2.056	2.457	2.269	2.411
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.878

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	53	18	2	196	61	17	30	50	69	71	7
Total Analysis Volume [veh/h]	54	212	73	8	784	242	69	119	201	275	284	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	31	0	23	43	0	14	21	0	20	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	48	48	1	44	44	6	14	14	16	24
g / C, Green / Cycle	0.06	0.50	0.50	0.01	0.46	0.46	0.06	0.15	0.15	0.17	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.05	0.00	0.42	0.15	0.04	0.06	0.13	0.15	0.17
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	1781	1840
c, Capacity [veh/h]	102	935	795	27	857	729	112	276	235	300	466
d1, Uniform Delay [s]	43.62	13.41	12.46	46.34	24.04	16.47	43.47	36.92	39.57	38.88	31.95
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.23	0.56	0.23	5.80	15.92	1.22	5.40	1.06	8.71	10.88	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.23	0.09	0.29	0.91	0.33	0.62	0.43	0.86	0.92	0.67
d, Delay for Lane Group [s/veh]	47.85	13.97	12.69	52.15	39.96	17.69	48.87	37.98	48.28	49.76	33.71
Lane Group LOS	D	B	B	D	D	B	D	D	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.28	2.34	0.75	0.22	17.65	3.18	1.66	2.43	4.82	6.74	6.14
50th-Percentile Queue Length [ft/ln]	32.08	58.41	18.78	5.52	441.27	79.46	41.43	60.80	120.58	168.54	153.61
95th-Percentile Queue Length [veh/ln]	2.31	4.21	1.35	0.40	24.54	5.72	2.98	4.38	8.43	11.00	10.21
95th-Percentile Queue Length [ft/ln]	57.75	105.14	33.81	9.94	613.52	143.03	74.57	109.43	210.63	275.00	255.24

Movement, Approach, & Intersection Results

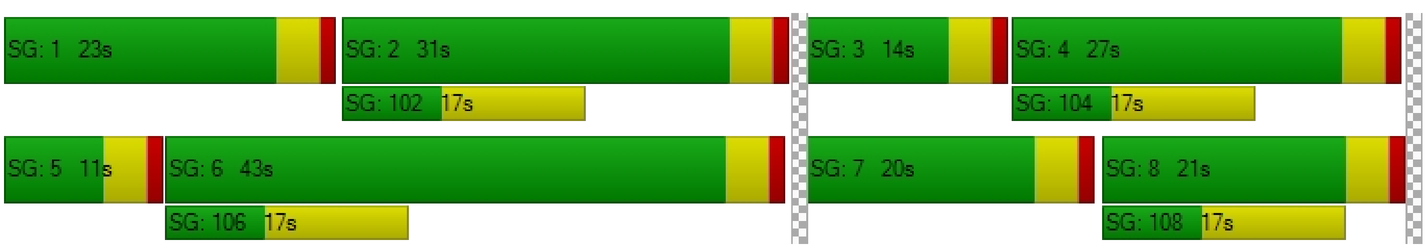
d_M, Delay for Movement [s/veh]	47.85	13.97	12.69	52.15	39.96	17.69	48.87	37.98	48.28	49.76	33.71	33.71
Movement LOS	D	B	B	D	D	B	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	19.09			34.84			45.23			41.21		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	35.89											
Intersection LOS	D											
Intersection V/C	0.878											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	37.14
I_p,int, Pedestrian LOS Score for Intersection	2.874	2.734	2.566	2.485
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	568	821	358	484
d_b, Bicycle Delay [s]	24.34	16.51	32.02	27.28
I_b,int, Bicycle LOS Score for Intersection	2.119	3.266	2.201	2.530
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	52.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.996

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	1467	187	24	183	93	366
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1467	187	24	183	93	366
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	367	47	6	46	23	92
Total Analysis Volume [veh/h]	1467	187	24	183	93	366
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	0	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	77	0	0	18	18	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	73	73	14	14	14	14
g / C, Green / Cycle	0.77	0.77	0.15	0.15	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.82	0.12	0.01	0.10	0.05	0.13
s, saturation flow rate [veh/h]	1781	1589	2530	1870	1870	2813
c, Capacity [veh/h]	1367	1220	294	278	278	418
d1, Uniform Delay [s]	11.05	2.91	40.04	38.18	36.24	39.59
k, delay calibration	0.50	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	46.69	0.06	0.54	11.66	3.23	21.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.07	0.15	0.08	0.66	0.34	0.88
d, Delay for Lane Group [s/veh]	57.74	2.97	40.58	49.84	39.48	61.51
Lane Group LOS	F	A	D	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	30.08	0.47	0.27	4.64	2.06	5.16
50th-Percentile Queue Length [ft/ln]	752.11	11.64	6.64	116.11	51.41	128.89
95th-Percentile Queue Length [veh/ln]	41.63	0.84	0.48	8.18	3.70	8.88
95th-Percentile Queue Length [ft/ln]	1040.64	20.95	11.96	204.47	92.53	221.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.74	2.97	40.58	49.84	39.48	61.51
Movement LOS	F	A	D	D	D	E
d_A, Approach Delay [s/veh]	51.55		48.76		57.05	
Approach LOS	D		D		E	
d_I, Intersection Delay [s/veh]	52.39					
Intersection LOS	D					
Intersection V/C	0.996					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	47.50	47.50	47.50
I_b,int, Bicycle LOS Score for Intersection	4.132	4.474	4.890
Bicycle LOS	D	E	E

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	25.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.874

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	61	1	9	10	61	3	1	87	38
Total Analysis Volume [veh/h]	0	1	1	245	5	37	40	245	13	3	349	150
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	495	527	518	559	565	512	572
Degree of Utilization, x	0.00	0.54	0.08	0.23	0.23	0.01	0.87

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	3.24	0.25	0.89	0.87	0.02	9.89
95th-Percentile Queue Length [ft]	0.30	81.00	6.25	22.15	21.84	0.44	247.32
Approach Delay [s/veh]	10.31	17.71	10.90			37.73	
Approach LOS	B	C	B			E	
Intersection Delay [s/veh]	25.06						
Intersection LOS	D						

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.982

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	98	425	103	35	1852	100	0	245	408	490	300	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	425	103	35	1852	100	0	245	408	490	300	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	106	26	9	463	25	0	61	102	123	75	8
Total Analysis Volume [veh/h]	98	425	103	35	1852	100	0	245	408	490	300	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	31	0	0	31	0	0	29	0	0	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	27	27	27	25	25	25	25	25
g / C, Green / Cycle	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.39	0.08	0.06	0.04	0.36	0.06	0.07	0.07	0.26	0.52	0.20
s, saturation flow rate [veh/h]	249	5094	1589	962	5094	1589	1870	1702	1589	938	1673
c, Capacity [veh/h]	145	2291	715	474	2291	715	841	711	664	511	699
d1, Uniform Delay [s]	29.35	9.95	9.76	12.48	14.34	9.74	10.97	10.97	13.75	21.82	12.75
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.49	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	22.67	0.18	0.42	0.30	3.20	0.41	0.08	0.11	0.93	30.33	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.19	0.14	0.07	0.81	0.14	0.15	0.16	0.61	0.96	0.48
d, Delay for Lane Group [s/veh]	52.02	10.13	10.18	12.79	17.53	10.14	11.06	11.08	14.68	52.15	13.25
Lane Group LOS	D	B	B	B	B	B	B	B	B	D	B
Critical Lane Group	Yes	No	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.26	1.01	0.78	0.26	5.25	0.58	0.96	0.88	3.93	11.08	2.94
50th-Percentile Queue Length [ft/ln]	56.61	25.31	19.46	6.51	131.20	14.60	24.07	22.00	98.30	276.91	73.38
95th-Percentile Queue Length [veh/ln]	4.08	1.82	1.40	0.47	9.01	1.05	1.73	1.58	7.08	16.53	5.28
95th-Percentile Queue Length [ft/ln]	101.90	45.56	35.03	11.73	225.13	26.28	43.33	39.59	176.94	413.36	132.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.02	10.13	10.18	12.79	17.53	10.14	11.06	11.07	14.68	52.15	13.25	13.25
Movement LOS	D	B	B	B	B	B	B	B	B	D	B	B
d_A, Approach Delay [s/veh]	16.70			17.08			13.32			36.44		
Approach LOS	B			B			B			D		
d_I, Intersection Delay [s/veh]	20.31											
Intersection LOS	C											
Intersection V/C	0.982											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	900	900	833	833
d_b, Bicycle Delay [s]	9.08	9.08	10.21	10.21
I_b,int, Bicycle LOS Score for Intersection	1.904	2.652	2.098	2.238
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Desert Hot Springs General Plan Update

Vistro File: G:\...\EGP PM.vistro
Scenario 2 Existing General Plan With Improvements
Report File: G:\...\Existing GP PM IMP.pdf
6/3/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.767	37.0	D
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.938	48.0	D
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.797	20.9	C
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Thru	0.944	32.9	C
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Signalized	HCM 6th Edition	WB Right	0.587	5.8	A
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.712	28.6	C
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	1.017	54.6	D
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.926	27.6	D
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.699	31.2	C
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	Signalized	HCM 6th Edition	WB Left	0.880	53.1	D
12	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Thru	0.765	36.8	D
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	EB Left	0.801	19.6	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.942	32.3	D
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.580	22.8	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.802	28.9	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Right	0.934	38.3	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.953	40.6	D

19	Palm Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.751	18.4	B
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	NB Left	1.044	49.4	D
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.951	50.7	D
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.852	32.4	C
23	Mountain View Rd (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	SB Left	1.005	54.9	D
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.825	28.6	D
101	SR-62 SB (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	1.082	27.6	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	37.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.767

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	462	6	127	204	0	0	0	0	1	0	221
Total Analysis Volume [veh/h]	0	1848	23	507	816	1	0	0	0	4	1	882
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap
Signal group	5	2	0	1	6	0	0	8	0	0	4	4
Auxiliary Signal Groups												1,4
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	7
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	11	35	0	28	52	0	0	22	0	0	22	22
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall	No	No		No	No			No			No	No
Maximum Recall	No	No		No	No			No			No	No
Pedestrian Recall	No	No		No	No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	0	32	32	23	55	55	18	18	45
g / C, Green / Cycle	0.00	0.37	0.37	0.27	0.65	0.65	0.21	0.21	0.53
(v / s)_i Volume / Saturation Flow Rate	0.00	0.36	0.01	0.15	0.23	0.00	0.00	0.00	0.55
s, saturation flow rate [veh/h]	1781	5094	1589	3459	3560	1589	1870	1523	1589
c, Capacity [veh/h]	2	1901	593	946	2298	1026	439	399	847
d1, Uniform Delay [s]	0.00	26.23	16.96	26.30	6.94	5.35	0.00	26.47	19.87
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	15.04	0.12	0.47	0.43	0.00	0.00	0.01	42.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.97	0.04	0.54	0.36	0.00	0.00	0.01	1.04
d, Delay for Lane Group [s/veh]	0.00	41.27	17.08	26.77	7.37	5.35	0.00	26.48	62.12
Lane Group LOS	A	D	B	C	A	A	A	C	F
Critical Lane Group	No	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	12.61	0.26	3.97	2.43	0.00	0.00	0.07	22.69
50th-Percentile Queue Length [ft/ln]	0.00	315.33	6.52	99.23	60.80	0.12	0.00	1.86	567.27
95th-Percentile Queue Length [veh/ln]	0.00	18.44	0.47	7.14	4.38	0.01	0.00	0.13	31.49
95th-Percentile Queue Length [ft/ln]	0.00	460.94	11.73	178.62	109.45	0.22	0.00	3.35	787.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	41.27	17.08	26.77	7.37	5.35	0.00	0.00	0.00	26.48	26.48	62.12
Movement LOS	A	D	B	C	A	A	A	A	A	C	C	F
d_A, Approach Delay [s/veh]		40.97			14.80			0.00			61.92	
Approach LOS		D			B			A			E	
d_I, Intersection Delay [s/veh]	37.03											
Intersection LOS	D											
Intersection V/C	0.767											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	729	1129	424	424
d_b, Bicycle Delay [s]	17.15	8.05	26.41	26.41
I_b,int, Bicycle LOS Score for Intersection	2.589	2.652	1.560	3.023
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	48.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.938

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	411	48	18	286	1	1	2	4	75	2	175
Total Analysis Volume [veh/h]	8	1644	190	71	1143	2	5	9	15	301	8	701
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	48	0	11	48	0	0	11	0	0	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	47	47	6	52	52	4	4	46	46
g / C, Green / Cycle	0.01	0.39	0.39	0.05	0.43	0.43	0.04	0.04	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.00	0.32	0.12	0.04	0.22	0.00	0.01	0.01	0.17	0.44
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1837	1589	1783	1589
c, Capacity [veh/h]	25	2010	627	95	2209	689	67	58	682	608
d1, Uniform Delay [s]	58.59	32.49	24.99	56.03	24.82	19.28	56.13	56.23	27.70	37.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.03	3.85	1.24	11.11	0.87	0.01	1.51	2.31	0.47	86.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.82	0.30	0.75	0.52	0.00	0.21	0.26	0.45	1.15
d, Delay for Lane Group [s/veh]	65.63	36.34	26.23	67.14	25.69	19.28	57.65	58.54	28.17	123.86
Lane Group LOS	E	D	C	E	C	B	E	E	C	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.28	13.43	3.61	2.30	7.25	0.03	0.44	0.48	6.28	30.94
50th-Percentile Queue Length [ft/ln]	6.93	335.72	90.17	57.40	181.36	0.76	11.02	12.00	156.92	773.47
95th-Percentile Queue Length [veh/ln]	0.50	19.44	6.49	4.13	11.67	0.05	0.79	0.86	10.39	44.09
95th-Percentile Queue Length [ft/ln]	12.48	485.96	162.31	103.33	291.79	1.36	19.84	21.60	259.64	1102.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.63	36.34	26.23	67.14	25.69	19.28	57.65	57.65	58.54	28.17	28.17	123.86
Movement LOS	E	D	C	E	C	B	E	E	E	C	C	F
d_A, Approach Delay [s/veh]	35.42			28.10			58.11			94.59		
Approach LOS	D			C			E			F		
d_I, Intersection Delay [s/veh]	47.99											
Intersection LOS	D											
Intersection V/C	0.938											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	733	733	117	767
d_b, Bicycle Delay [s]	24.07	24.07	53.20	22.82
I_b,int, Bicycle LOS Score for Intersection	2.573	2.228	1.607	3.226
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.797

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0
Pocket Length [ft]	100.00	258.00	103.00	100.00	160.00	100.00
Speed [mph]	55.00		55.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Mission Lakes Blvd	
Base Volume Input [veh/h]	498	257	223	271	189	392
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	498	257	223	271	189	392
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	125	64	56	68	47	98
Total Analysis Volume [veh/h]	498	257	223	271	189	392
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	21	0	18	39	21	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	9	36	16	16
g / C, Green / Cycle	0.37	0.37	0.16	0.59	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.27	0.16	0.13	0.14	0.11	0.25
s, saturation flow rate [veh/h]	1870	1589	1781	1870	1781	1589
c, Capacity [veh/h]	690	587	278	1106	490	438
d1, Uniform Delay [s]	16.31	14.28	24.50	5.87	17.67	20.97
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.42	2.37	5.37	0.53	0.50	6.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.44	0.80	0.24	0.39	0.90
d, Delay for Lane Group [s/veh]	22.73	16.65	29.87	6.39	18.17	27.64
Lane Group LOS	C	B	C	A	B	C
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.63	2.37	2.98	1.04	1.83	5.14
50th-Percentile Queue Length [ft/ln]	140.80	59.34	74.61	26.11	45.63	128.44
95th-Percentile Queue Length [veh/ln]	9.52	4.27	5.37	1.88	3.29	8.85
95th-Percentile Queue Length [ft/ln]	238.10	106.81	134.30	47.00	82.14	221.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.73	16.65	29.87	6.39	18.17	27.64
Movement LOS	C	B	C	A	B	C
d_A, Approach Delay [s/veh]	20.66		16.99		24.56	
Approach LOS	C		B		C	
d_I, Intersection Delay [s/veh]	20.91					
Intersection LOS	C					
Intersection V/C	0.797					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.540
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	5.378	4.948	4.132
Bicycle LOS	F	E	D

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	32.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.944

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	147	39	11	91	14	35	57	29	40	68	14
Total Analysis Volume [veh/h]	153	588	156	45	363	56	138	229	117	160	271	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	35	0	0	35	0	0	35	0	0	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	R	C
C, Cycle Length [s]	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	31	31
g / C, Green / Cycle	0.44	0.44	0.44	0.44	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.16	0.31	0.10	0.36	0.30	0.07	0.53
s, saturation flow rate [veh/h]	967	1870	1589	1299	1208	1589	910
c, Capacity [veh/h]	189	828	704	632	605	703	471
d1, Uniform Delay [s]	25.17	15.79	12.00	15.64	14.66	11.70	24.62
k, delay calibration	0.50	0.50	0.50	0.50	0.22	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	30.27	5.12	0.73	7.41	1.99	0.11	49.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.71	0.22	0.73	0.61	0.17	1.03
d, Delay for Lane Group [s/veh]	55.44	20.92	12.73	23.05	16.64	11.81	73.71
Lane Group LOS	E	C	B	C	B	B	F
Critical Lane Group	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.83	7.01	1.32	5.52	3.72	0.88	13.58
50th-Percentile Queue Length [ft/ln]	95.72	175.13	32.93	138.06	93.02	22.00	339.44
95th-Percentile Queue Length [veh/ln]	6.89	11.35	2.37	9.38	6.70	1.58	20.02
95th-Percentile Queue Length [ft/ln]	172.29	283.64	59.27	234.41	167.43	39.60	500.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.44	20.92	12.73	23.05	23.05	23.05	16.64	16.64	11.81	73.71	73.71	73.71
Movement LOS	E	C	B	C	C	C	B	B	B	E	E	E
d_A, Approach Delay [s/veh]	25.38			23.05			15.48			73.71		
Approach LOS	C			C			B			E		
d_I, Intersection Delay [s/veh]	32.92											
Intersection LOS	C											
Intersection V/C	0.944											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	886	886	886	886
d_b, Bicycle Delay [s]	10.86	10.86	10.86	10.86
I_b,int, Bicycle LOS Score for Intersection	3.040	2.325	2.358	2.360
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	5.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			14th Ave			14th Ave		
Base Volume Input [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	10	13	134	0	0	0	0	13	0	14
Total Analysis Volume [veh/h]	0	903	39	51	537	0	0	0	0	53	0	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	58	0	0	58	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	C	C
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	56	56	56	56	6	6
g / C, Green / Cycle	0.80	0.80	0.80	0.80	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.48	0.02	0.35	0.00	0.00	0.07
s, saturation flow rate [veh/h]	1870	1589	1670	1589	1356	1568
c, Capacity [veh/h]	1538	1263	1383	1263	175	219
d1, Uniform Delay [s]	2.85	1.51	2.15	0.00	0.00	30.99
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.65	0.05	0.96	0.00	0.00	1.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.03	0.43	0.00	0.00	0.50
d, Delay for Lane Group [s/veh]	4.50	1.56	3.11	0.00	0.00	32.77
Lane Group LOS	A	A	A	A	A	C
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.71	0.02	0.53	0.00	0.00	1.86
50th-Percentile Queue Length [ft/ln]	17.63	0.40	13.16	0.00	0.00	46.45
95th-Percentile Queue Length [veh/ln]	1.27	0.03	0.95	0.00	0.00	3.34
95th-Percentile Queue Length [ft/ln]	31.73	0.72	23.70	0.00	0.00	83.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.50	4.50	1.56	3.11	3.11	0.00	0.00	0.00	0.00	32.77	32.77	32.77
Movement LOS	A	A	A	A	A	A	A	A	A	C	C	C
d_A, Approach Delay [s/veh]	4.38			3.11			0.00			32.77		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	5.83											
Intersection LOS	A											
Intersection V/C	0.587											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1543	1543	229	229
d_b, Bicycle Delay [s]	1.83	1.83	27.46	27.46
I_b,int, Bicycle LOS Score for Intersection	3.114	2.530	1.560	1.741
Bicycle LOS	C	B	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	28.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	292	81	22	153	18	14	81	11	56	86	44
Total Analysis Volume [veh/h]	74	1169	323	87	613	71	55	323	42	225	345	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	32	0	12	33	0	16	20	0	16	20	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	31	31	6	31	31	5	16	16	12	22	22
g / C, Green / Cycle	0.07	0.38	0.38	0.08	0.39	0.39	0.06	0.19	0.19	0.15	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.33	0.20	0.05	0.17	0.04	0.03	0.17	0.03	0.13	0.18	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	127	1365	609	135	1380	616	111	361	307	264	521	443
d1, Uniform Delay [s]	36.04	22.68	19.12	35.99	18.15	15.73	36.32	31.51	26.78	33.27	25.55	23.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.17	7.10	3.28	5.12	1.04	0.38	3.35	7.79	0.20	7.65	1.45	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.86	0.53	0.65	0.44	0.12	0.49	0.89	0.14	0.85	0.66	0.40
d, Delay for Lane Group [s/veh]	40.21	29.78	22.40	41.11	19.19	16.11	39.67	39.30	26.98	40.92	26.99	24.00
Lane Group LOS	D	C	C	D	B	B	D	D	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.43	9.78	4.49	1.70	3.75	0.78	1.06	6.21	0.62	4.41	5.29	2.45
50th-Percentile Queue Length [ft/ln]	35.79	244.54	112.13	42.61	93.84	19.46	26.48	155.28	15.42	110.15	132.16	61.16
95th-Percentile Queue Length [veh/ln]	2.58	14.91	7.96	3.07	6.76	1.40	1.91	10.30	1.11	7.85	9.06	4.40
95th-Percentile Queue Length [ft/ln]	64.43	372.76	198.97	76.71	168.91	35.04	47.66	257.46	27.76	196.21	226.43	110.08

Movement, Approach, & Intersection Results

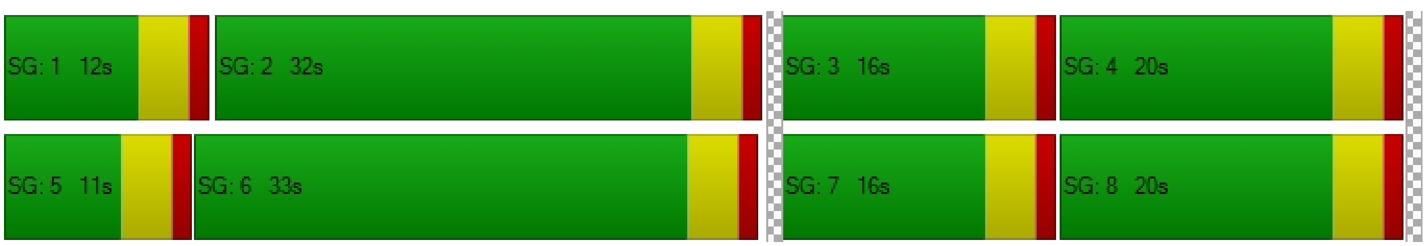
d_M, Delay for Movement [s/veh]	40.21	29.78	22.40	41.11	19.19	16.11	39.67	39.30	26.98	40.92	26.99	24.00
Movement LOS	D	C	C	D	B	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	28.75			21.38			38.12			30.49		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	28.62											
Intersection LOS	C											
Intersection V/C	0.712											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	700	725	400	400
d_b, Bicycle Delay [s]	16.90	16.26	25.60	25.60
I_b,int, Bicycle LOS Score for Intersection	2.852	2.196	2.253	2.791
Bicycle LOS	C	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	54.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.017

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	327	86	44	224	14	26	30	125	114	20	78
Total Analysis Volume [veh/h]	214	1307	344	176	895	56	103	120	501	454	80	310
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	13	39	0	14	40	0	31	35	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	35	35	10	37	37	8	31	31	13	36	36
g / C, Green / Cycle	0.08	0.33	0.33	0.10	0.35	0.35	0.07	0.29	0.29	0.12	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.06	0.31	0.32	0.10	0.18	0.18	0.06	0.06	0.32	0.13	0.12	0.12
s, saturation flow rate [veh/h]	3459	3560	1678	1781	3560	1814	1781	1870	1589	3459	1692	1589
c, Capacity [veh/h]	277	1193	562	170	1247	636	132	549	466	428	581	546
d1, Uniform Delay [s]	47.37	33.86	33.98	47.50	26.92	26.93	47.80	28.02	37.10	46.00	25.64	25.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.58	14.90	26.64	42.00	1.46	2.86	9.71	0.20	63.07	38.20	0.35	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.94	0.95	1.04	0.50	0.51	0.78	0.22	1.07	1.06	0.34	0.35
d, Delay for Lane Group [s/veh]	51.95	48.75	60.62	89.51	28.38	29.79	57.51	28.21	100.18	84.21	25.98	26.13
Lane Group LOS	D	D	E	F	C	C	E	C	F	F	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.78	15.04	16.15	6.18	5.97	6.34	2.99	2.30	19.85	7.82	3.70	3.61
50th-Percentile Queue Length [ft/ln]	69.46	375.90	403.70	154.45	149.30	158.59	74.82	57.50	496.27	195.41	92.45	90.13
95th-Percentile Queue Length [veh/ln]	5.00	21.40	22.74	10.39	9.98	10.47	5.39	4.14	28.40	12.70	6.66	6.49
95th-Percentile Queue Length [ft/ln]	125.02	534.88	568.46	259.76	249.50	261.86	134.68	103.50	709.91	317.50	166.40	162.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.95	50.46	60.62	89.51	28.80	29.79	57.51	28.21	100.18	84.21	25.98	26.08
Movement LOS	D	D	E	F	C	C	E	C	F	F	C	C
d_A, Approach Delay [s/veh]		52.50			38.33			82.18			57.34	
Approach LOS		D			D			F			E	
d_I, Intersection Delay [s/veh]						54.61						
Intersection LOS						D						
Intersection V/C						1.017						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.369	2.517	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	686	590	324
d_b, Bicycle Delay [s]	23.33	22.67	26.08	36.88
I_b,int, Bicycle LOS Score for Intersection	2.585	2.179	2.754	2.952
Bicycle LOS	B	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.926

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	23	67	3	20	3	6	44	59	45	53	6
Total Analysis Volume [veh/h]	421	90	266	12	78	12	25	177	234	179	211	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	454	519	393	413	447	398	422	460	399	423	461
Degree of Utilization, x	0.93	0.69	0.03	0.19	0.03	0.06	0.42	0.51	0.45	0.50	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	10.65	5.22	0.09	0.69	0.08	0.20	2.03	2.82	2.25	2.71	0.16
95th-Percentile Queue Length [ft]	266.18	130.55	2.36	17.16	2.07	5.00	50.84	70.62	56.35	67.77	4.11
Approach Delay [s/veh]	39.94		12.99			17.57			18.67		
Approach LOS	E		B			C			C		
Intersection Delay [s/veh]	27.61										
Intersection LOS	D										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	31.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	137	46	28	88	7	11	59	18	29	70	41
Total Analysis Volume [veh/h]	175	546	185	110	352	27	42	235	71	117	278	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	28	36	0	12	20	0	11	14	0	13	16	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	35	6	32	4	11	11	6	14	14
g / C, Green / Cycle	0.12	0.47	0.08	0.43	0.05	0.15	0.15	0.09	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.10	0.41	0.06	0.21	0.02	0.13	0.04	0.07	0.15	0.10
s, saturation flow rate [veh/h]	1781	1790	1781	1847	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	221	837	151	791	99	279	237	153	336	285
d1, Uniform Delay [s]	31.97	18.01	33.54	15.46	34.32	31.11	28.48	33.58	29.70	28.15
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.31	12.25	6.59	2.08	2.89	6.87	0.70	7.66	5.23	1.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.87	0.73	0.48	0.43	0.84	0.30	0.76	0.83	0.57
d, Delay for Lane Group [s/veh]	38.28	30.26	40.13	17.54	37.21	37.98	29.18	41.24	34.93	29.93
Lane Group LOS	D	C	D	B	D	D	C	D	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.15	11.60	2.10	4.44	0.76	4.28	1.08	2.24	4.83	2.54
50th-Percentile Queue Length [ft/ln]	78.84	290.09	52.42	111.06	19.09	106.93	27.05	55.96	120.74	63.48
95th-Percentile Queue Length [veh/ln]	5.68	17.19	3.77	7.90	1.37	7.67	1.95	4.03	8.43	4.57
95th-Percentile Queue Length [ft/ln]	141.90	429.75	94.35	197.48	34.36	191.72	48.69	100.72	210.84	114.26

Movement, Approach, & Intersection Results

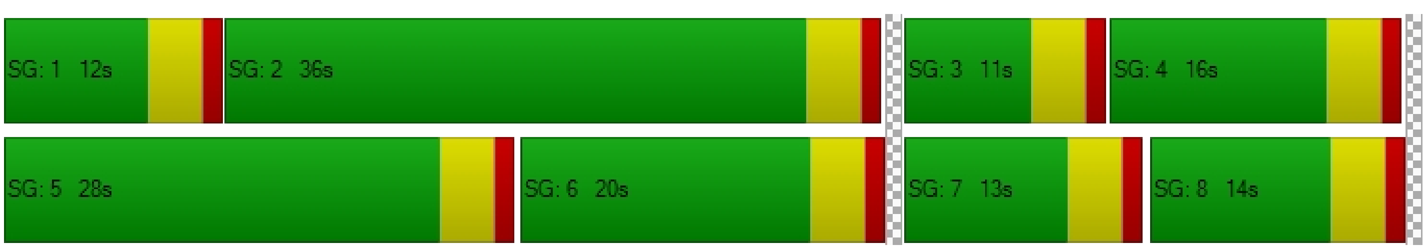
d_M, Delay for Movement [s/veh]	38.28	30.26	30.26	40.13	17.54	17.54	37.21	37.98	29.18	41.24	34.93	29.93
Movement LOS	D	C	C	D	B	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	31.81			22.62			36.09			34.80		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.23											
Intersection LOS	C											
Intersection V/C	0.699											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	853	427	267	320
d_b, Bicycle Delay [s]	12.33	23.21	28.17	26.46
I_b,int, Bicycle LOS Score for Intersection	3.055	2.366	2.134	2.479
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	Signalized	Delay (sec / veh):	53.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.880

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	204	69	16	101	7	0	26	25	39	8	31
Total Analysis Volume [veh/h]	130	815	276	62	404	28	0	102	100	156	31	125
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	70	0	11	51	0	19	19	0	15	15	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	67	6	63	0	15	11	26
g / C, Green / Cycle	0.09	0.58	0.05	0.55	0.00	0.13	0.10	0.23
(v / s)_i Volume / Saturation Flow Rate	0.07	0.61	0.03	0.23	0.00	0.12	0.09	0.10
s, saturation flow rate [veh/h]	1781	1790	1781	1849	1781	1720	1781	1638
c, Capacity [veh/h]	160	1045	94	1011	0	222	171	368
d1, Uniform Delay [s]	51.42	23.95	53.47	15.42	0.00	49.46	51.53	38.24
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.59	40.13	7.68	1.32	0.00	13.54	16.92	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	1.04	0.66	0.43	0.00	0.91	0.91	0.42
d, Delay for Lane Group [s/veh]	61.01	64.08	61.15	16.75	0.00	63.00	68.45	39.02
Lane Group LOS	E	F	E	B	A	E	E	D
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.94	34.98	1.89	6.28	0.00	6.54	5.13	3.73
50th-Percentile Queue Length [ft/ln]	98.51	874.46	47.16	156.99	0.00	163.45	128.29	93.32
95th-Percentile Queue Length [veh/ln]	7.09	46.36	3.40	10.39	0.00	10.73	8.85	6.72
95th-Percentile Queue Length [ft/ln]	177.32	1158.91	84.88	259.74	0.00	268.28	221.17	167.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.01	64.08	64.08	61.15	16.75	16.75	0.00	63.00	63.00	68.45	39.02	39.02
Movement LOS	E	E	E	E	B	B	A	E	E	E	D	D
d_A, Approach Delay [s/veh]		63.75			22.32			63.00			53.73	
Approach LOS		E			C			E			D	
d_I, Intersection Delay [s/veh]						53.10						
Intersection LOS						D						
Intersection V/C						0.880						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1148	817	261	191
d_b, Bicycle Delay [s]	10.44	20.10	43.48	47.03
I_b,int, Bicycle LOS Score for Intersection	3.574	2.375	1.893	2.074
Bicycle LOS	D	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.765

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	96	63	58	53	45	74	104	20	35	84	88
Total Analysis Volume [veh/h]	156	385	252	231	211	180	295	416	81	138	334	350
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	20	20	14	12	0	16	25	0	11	20	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	16	16	10	18	18	12	21	7	16	16
g / C, Green / Cycle	0.11	0.23	0.23	0.14	0.26	0.26	0.17	0.31	0.09	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.16	0.13	0.11	0.11	0.17	0.27	0.04	0.18	0.22
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1818	3459	1870	1589
c, Capacity [veh/h]	199	432	367	255	490	417	305	552	324	422	359
d1, Uniform Delay [s]	30.28	26.08	24.61	29.56	21.50	21.51	28.82	23.36	29.98	25.56	26.92
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.19	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.56	23.07	9.99	11.65	2.74	3.24	17.04	9.03	0.89	3.36	16.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.89	0.69	0.91	0.43	0.43	0.97	0.90	0.43	0.79	0.97
d, Delay for Lane Group [s/veh]	36.83	49.15	34.59	41.21	24.24	24.75	45.86	32.39	30.87	28.91	43.74
Lane Group LOS	D	D	C	D	C	C	D	C	C	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.82	8.63	4.64	4.18	2.84	2.48	5.72	7.88	1.02	4.87	6.62
50th-Percentile Queue Length [ft/ln]	70.62	215.86	116.04	104.56	70.89	61.91	143.08	197.01	25.47	121.81	165.54
95th-Percentile Queue Length [veh/ln]	5.08	13.45	8.17	7.53	5.10	4.46	9.65	12.48	1.83	8.49	10.84
95th-Percentile Queue Length [ft/ln]	127.11	336.34	204.37	188.21	127.60	111.44	241.16	312.10	45.84	212.32	271.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.83	49.15	34.59	41.21	24.24	24.75	45.86	32.39	32.39	30.87	28.91	43.74
Movement LOS	D	D	C	D	C	C	D	C	C	C	C	D
d_A, Approach Delay [s/veh]		42.10			30.69			37.41			35.55	
Approach LOS		D			C			D			D	
d_I, Intersection Delay [s/veh]	36.75											
Intersection LOS	D											
Intersection V/C	0.765											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	457	229	600	457
d_b, Bicycle Delay [s]	20.83	27.46	17.15	20.83
I_b,int, Bicycle LOS Score for Intersection	2.868	2.586	2.866	2.916
Bicycle LOS	C	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.801

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	27	0	49	111	55	0	0	52	29
Total Analysis Volume [veh/h]	2	1	1	109	1	194	444	221	1	1	206	116
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	503	603	555	602	629
Degree of Utilization, x	0.01	0.50	0.80	0.37	0.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	2.84	7.73	1.69	2.94
95th-Percentile Queue Length [ft]	0.60	70.96	193.23	42.33	73.40
Approach Delay [s/veh]	10.22	14.90	24.25		14.59
Approach LOS	B	B	C		B
Intersection Delay [s/veh]	19.61				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	32.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.942

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	5	14	0	2	1	1	9	86	11	7	0
Total Analysis Volume [veh/h]	509	19	57	1	7	3	2	34	342	42	28	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	540	585	660	461	513	524	586	457	525
Degree of Utilization, x	0.94	0.03	0.09	0.02	0.01	0.07	0.58	0.15	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.99	0.10	0.28	0.05	0.02	0.22	3.74	0.54	0.01
95th-Percentile Queue Length [ft]	299.78	2.52	7.06	1.32	0.44	5.52	93.54	13.41	0.14
Approach Delay [s/veh]	45.52			10.40		16.41		11.96	
Approach LOS	E			B		C		B	
Intersection Delay [s/veh]	32.34								
Intersection LOS	D								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	162	17	16	107	30	31	29	44	19	58	45
Total Analysis Volume [veh/h]	169	647	66	65	427	119	125	117	177	75	232	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	28	28	5	25	25	6	11	11	5	10	10
g / C, Green / Cycle	0.12	0.42	0.42	0.08	0.38	0.38	0.10	0.17	0.17	0.08	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.09	0.19	0.19	0.04	0.15	0.15	0.07	0.06	0.11	0.04	0.12	0.12
s, saturation flow rate [veh/h]	1781	1870	1810	1781	1870	1732	1781	1870	1589	1781	1870	1609
c, Capacity [veh/h]	213	790	764	137	709	657	175	325	276	146	295	254
d1, Uniform Delay [s]	27.94	13.51	13.51	28.88	14.81	14.84	28.55	23.76	25.07	28.71	26.19	26.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.51	1.92	1.98	2.56	1.67	1.83	5.35	0.67	2.47	2.77	3.55	4.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.46	0.46	0.48	0.40	0.40	0.71	0.36	0.64	0.51	0.73	0.76
d, Delay for Lane Group [s/veh]	34.45	15.42	15.49	31.44	16.48	16.67	33.90	24.43	27.54	31.48	29.74	31.01
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.78	3.70	3.60	1.02	3.01	2.85	2.04	1.54	2.55	1.17	3.27	3.00
50th-Percentile Queue Length [ft/ln]	69.55	92.59	89.99	25.39	75.36	71.30	50.94	38.47	63.72	29.27	81.68	74.92
95th-Percentile Queue Length [veh/ln]	5.01	6.67	6.48	1.83	5.43	5.13	3.67	2.77	4.59	2.11	5.88	5.39
95th-Percentile Queue Length [ft/ln]	125.19	166.67	161.97	45.71	135.65	128.35	91.69	69.25	114.69	52.69	147.02	134.86

Movement, Approach, & Intersection Results

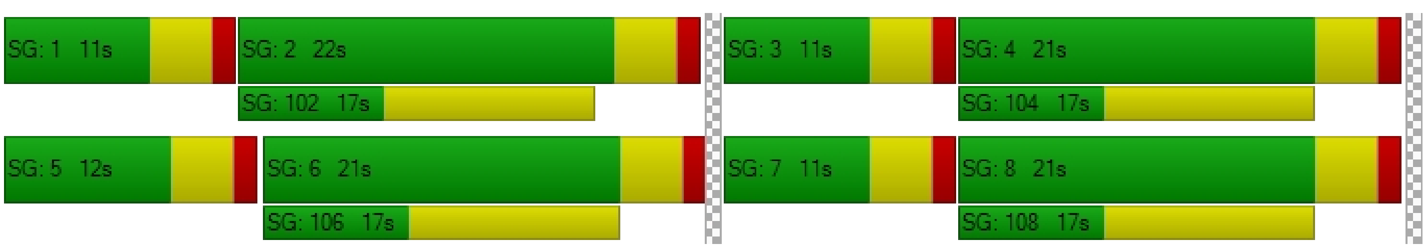
d_M, Delay for Movement [s/veh]	34.45	15.45	15.49	31.44	16.54	16.67	33.90	24.43	27.54	31.48	29.82	31.01
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.10			18.15			28.57			30.52		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.82											
Intersection LOS	C											
Intersection V/C	0.580											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.637	2.637	2.613	2.449
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.287	2.064	1.905	1.960
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.802

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	242	19	34	149	19	30	59	34	47	90	37
Total Analysis Volume [veh/h]	146	968	76	136	595	76	121	235	135	187	358	148
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	21	0	15	21	0	12	21	0	13	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	25	25	7	25	25	6	13	13	9	16	16
g / C, Green / Cycle	0.10	0.36	0.36	0.10	0.35	0.35	0.09	0.19	0.19	0.13	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.08	0.28	0.28	0.08	0.18	0.18	0.07	0.10	0.11	0.11	0.19	0.09
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1797	1781	1870	1647	1781	1870	1589
c, Capacity [veh/h]	188	671	654	177	659	633	164	346	305	230	415	353
d1, Uniform Delay [s]	30.60	20.12	20.13	30.85	18.03	18.03	31.06	26.03	26.12	29.78	26.31	23.45
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.68	9.07	9.33	6.86	2.91	3.03	6.30	1.42	1.73	6.85	5.42	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.79	0.79	0.77	0.52	0.52	0.74	0.56	0.58	0.81	0.86	0.42
d, Delay for Lane Group [s/veh]	37.28	29.19	29.47	37.71	20.93	21.06	37.37	27.45	27.85	36.63	31.73	24.25
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.63	8.58	8.42	2.47	4.50	4.35	2.12	2.80	2.57	3.29	5.86	2.01
50th-Percentile Queue Length [ft/ln]	65.71	214.46	210.52	61.64	112.48	108.75	53.06	70.03	64.31	82.19	146.44	50.16
95th-Percentile Queue Length [veh/ln]	4.73	13.38	13.18	4.44	7.98	7.77	3.82	5.04	4.63	5.92	9.83	3.61
95th-Percentile Queue Length [ft/ln]	118.29	334.54	329.49	110.95	199.45	194.27	95.51	126.06	115.76	147.93	245.67	90.29

Movement, Approach, & Intersection Results

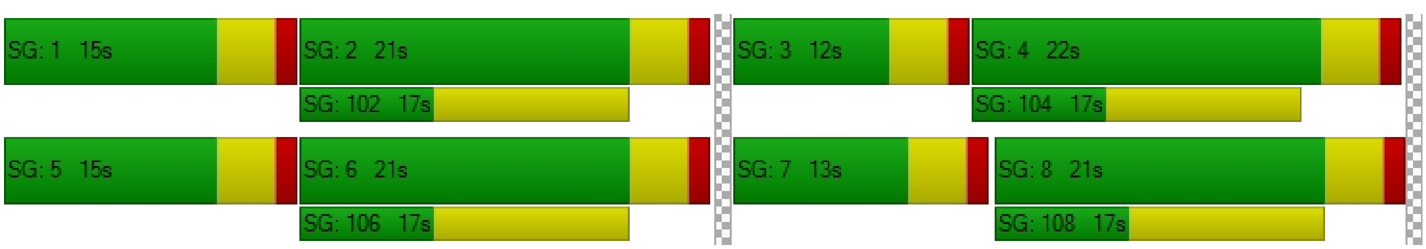
d_M, Delay for Movement [s/veh]	37.28	29.32	29.47	37.71	20.99	21.06	37.37	27.52	27.85	36.63	31.73	24.25
Movement LOS	D	C	C	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	30.30			23.81			30.04			31.45		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	28.87											
Intersection LOS	C											
Intersection V/C	0.802											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.838	2.751	2.509	2.582
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	486	514
d_b, Bicycle Delay [s]	20.06	20.06	20.06	19.31
I_b,int, Bicycle LOS Score for Intersection	2.541	2.225	1.965	2.703
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	38.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.934

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	83	278	43	28	181	9	32	57	82	68	51	26
Total Analysis Volume [veh/h]	331	1110	172	113	722	36	129	229	326	273	203	102
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	31	0	11	22	0	17	21	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	28	28	6	18	18	7	17	17	13	23	23
g / C, Green / Cycle	0.20	0.35	0.35	0.08	0.23	0.23	0.09	0.21	0.21	0.16	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.19	0.31	0.11	0.06	0.20	0.02	0.07	0.12	0.21	0.15	0.11	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	356	1234	551	144	809	361	164	393	334	290	525	446
d1, Uniform Delay [s]	31.46	24.84	19.17	36.11	29.98	24.46	35.56	28.45	31.41	33.15	23.23	22.13
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.71	10.61	1.48	9.03	14.25	0.55	8.02	1.37	18.76	14.24	0.47	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.90	0.31	0.79	0.89	0.10	0.79	0.58	0.98	0.94	0.39	0.23
d, Delay for Lane Group [s/veh]	42.18	35.45	20.65	45.14	44.24	25.01	43.59	29.82	50.16	47.40	23.70	22.39
Lane Group LOS	D	D	C	D	D	C	D	C	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.93	10.86	2.39	2.45	7.98	0.57	2.71	3.85	7.56	6.15	2.99	1.43
50th-Percentile Queue Length [ft/ln]	173.33	271.42	59.70	61.29	199.55	14.36	67.73	96.35	189.08	153.63	74.87	35.82
95th-Percentile Queue Length [veh/ln]	11.25	16.26	4.30	4.41	12.62	1.03	4.88	6.94	12.07	10.21	5.39	2.58
95th-Percentile Queue Length [ft/ln]	281.29	406.51	107.45	110.33	315.39	25.84	121.91	173.43	301.83	255.27	134.77	64.48

Movement, Approach, & Intersection Results

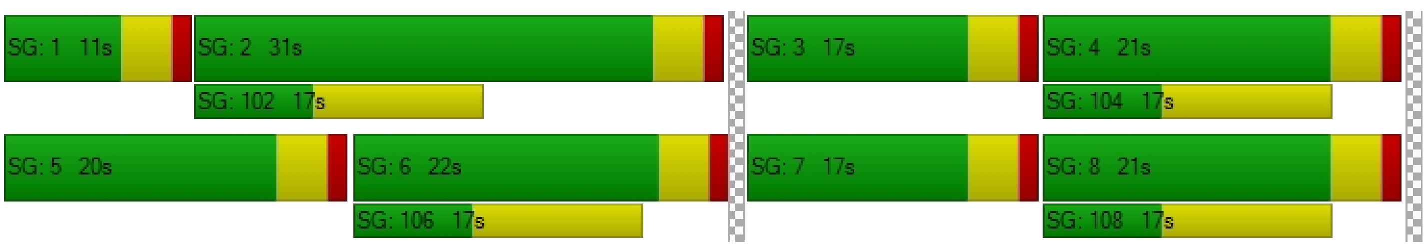
d_M, Delay for Movement [s/veh]	42.18	35.45	20.65	45.14	44.24	25.01	43.59	29.82	50.16	47.40	23.70	22.39
Movement LOS	D	D	C	D	D	C	D	C	D	D	C	C
d_A, Approach Delay [s/veh]		35.25			43.56			42.11			34.66	
Approach LOS		D			D			D			C	
d_I, Intersection Delay [s/veh]	38.34											
Intersection LOS	D											
Intersection V/C	0.934											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
I_p,int, Pedestrian LOS Score for Intersection	3.196	2.866	2.619	2.435
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	675	450	425	425
d_b, Bicycle Delay [s]	17.56	24.03	24.81	24.81
I_b,int, Bicycle LOS Score for Intersection	2.890	2.278	2.688	2.513
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	40.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.953

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	80	341	73	29	191	49	61	106	44	41	89	44
Total Analysis Volume [veh/h]	319	1363	291	115	765	195	242	424	176	162	356	174
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	37	0	11	28	0	16	24	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	33	33	7	24	24	12	20	20	9	17	17
g / C, Green / Cycle	0.19	0.39	0.39	0.08	0.28	0.28	0.14	0.23	0.23	0.11	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.18	0.38	0.18	0.06	0.15	0.12	0.14	0.23	0.11	0.09	0.19	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	335	1393	622	145	1450	452	252	436	370	189	370	314
d1, Uniform Delay [s]	34.13	25.53	19.29	38.35	25.61	24.81	36.29	32.36	28.14	37.38	33.81	30.74
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.19	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.88	19.47	2.52	9.26	1.38	2.98	18.64	20.80	0.95	10.64	15.00	1.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.98	0.47	0.79	0.53	0.43	0.96	0.97	0.48	0.86	0.96	0.55
d, Delay for Lane Group [s/veh]	48.01	45.00	21.81	47.60	26.99	27.79	54.92	53.16	29.08	48.02	48.81	32.26
Lane Group LOS	D	D	C	D	C	C	D	D	C	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.09	14.97	4.05	2.55	4.06	3.24	5.86	10.23	2.88	3.60	8.09	3.04
50th-Percentile Queue Length [ft/ln]	177.29	374.32	101.25	63.66	101.40	81.04	146.42	255.81	72.05	90.11	202.35	76.12
95th-Percentile Queue Length [veh/ln]	11.46	21.32	7.29	4.58	7.30	5.84	9.83	15.48	5.19	6.49	12.76	5.48
95th-Percentile Queue Length [ft/ln]	286.47	532.96	182.24	114.59	182.51	145.88	245.64	386.96	129.70	162.21	318.99	137.02

Movement, Approach, & Intersection Results

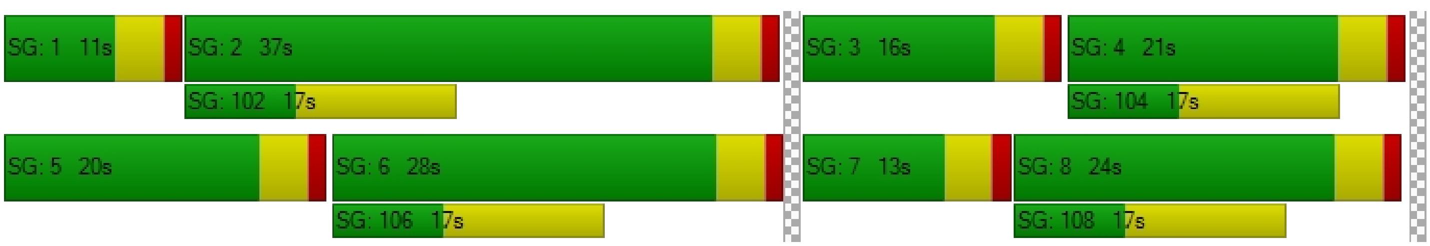
d_M, Delay for Movement [s/veh]	48.01	45.00	21.81	47.60	26.99	27.79	54.92	53.16	29.08	48.02	48.81	32.26
Movement LOS	D	D	C	D	C	C	D	D	C	D	D	C
d_A, Approach Delay [s/veh]		42.07			29.34			48.63			44.47	
Approach LOS		D			C			D			D	
d_I, Intersection Delay [s/veh]	40.65											
Intersection LOS	D											
Intersection V/C	0.953											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.472	3.360	2.959	2.841
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	776	565	471	400
d_b, Bicycle Delay [s]	15.91	21.89	24.85	27.20
I_b,int, Bicycle LOS Score for Intersection	3.187	2.151	2.949	2.701
Bicycle LOS	C	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.751

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	468	103	10	245	17	19	45	18	43	23	10
Total Analysis Volume [veh/h]	111	1873	412	38	978	67	77	180	70	171	92	39
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	53	0	0	53	0	21	18	0	14	11	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	52	52	52	52	52	52	6	14	7	15
g / C, Green / Cycle	0.62	0.62	0.62	0.62	0.62	0.62	0.07	0.16	0.08	0.17
(v / s)_i Volume / Saturation Flow Rate	0.19	0.53	0.26	0.16	0.27	0.04	0.04	0.14	0.05	0.07
s, saturation flow rate [veh/h]	575	3560	1589	244	3560	1589	1781	1782	3459	1777
c, Capacity [veh/h]	342	2192	979	125	2192	979	125	288	283	308
d1, Uniform Delay [s]	16.06	13.26	8.48	35.01	8.66	6.56	38.44	34.80	37.71	31.40
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.50	4.51	1.33	6.15	0.66	0.14	4.86	7.93	2.06	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.85	0.42	0.30	0.45	0.07	0.62	0.87	0.60	0.43
d, Delay for Lane Group [s/veh]	18.57	17.77	9.81	41.16	9.32	6.70	43.29	42.73	39.78	32.33
Lane Group LOS	B	B	A	D	A	A	D	D	D	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.45	10.92	3.05	0.91	3.46	0.37	1.65	5.35	1.71	2.34
50th-Percentile Queue Length [ft/ln]	36.18	272.93	76.20	22.73	86.43	9.36	41.26	133.85	42.81	58.40
95th-Percentile Queue Length [veh/ln]	2.61	16.34	5.49	1.64	6.22	0.67	2.97	9.15	3.08	4.20
95th-Percentile Queue Length [ft/ln]	65.13	408.40	137.16	40.91	155.57	16.86	74.27	228.72	77.05	105.12

Movement, Approach, & Intersection Results

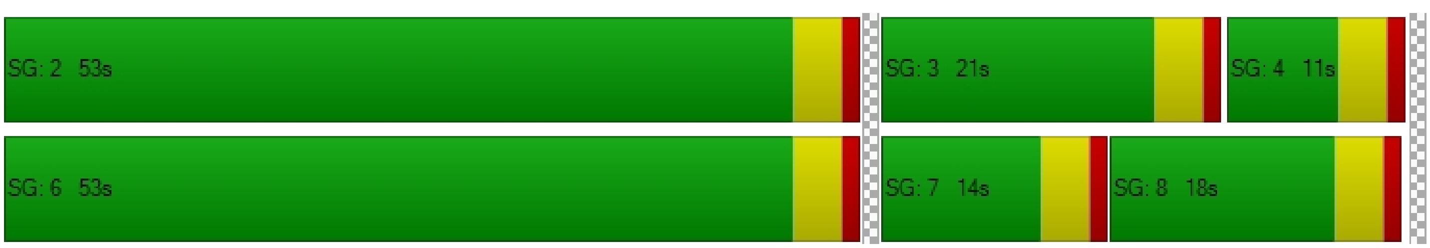
d_M, Delay for Movement [s/veh]	18.57	17.77	9.81	41.16	9.32	6.70	43.29	42.73	42.73	39.78	32.33	32.33
Movement LOS	B	B	A	D	A	A	D	D	D	D	C	C
d_A, Approach Delay [s/veh]	16.44			10.28			42.86			36.55		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	18.40											
Intersection LOS	B											
Intersection V/C	0.751											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1153	1153	329	165
d_b, Bicycle Delay [s]	7.62	7.62	29.65	35.79
I_b,int, Bicycle LOS Score for Intersection	3.536	2.453	2.099	2.058
Bicycle LOS	D	B	B	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	49.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.044

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	570	30	50	246	0	0	0	0	21	0	68
Total Analysis Volume [veh/h]	1	2279	120	200	983	0	0	1	1	84	1	271
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	79	0	11	79	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	75	75	7	82	82	26	26
g / C, Green / Cycle	0.00	0.62	0.62	0.06	0.68	0.68	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.00	0.64	0.65	0.06	0.26	0.26	0.00	0.23
s, saturation flow rate [veh/h]	1781	1870	1838	3459	1870	1870	1587	1557
c, Capacity [veh/h]	4	1168	1147	203	1273	1273	374	375
d1, Uniform Delay [s]	59.73	22.53	22.53	56.41	8.29	8.29	36.84	47.57
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.39
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	26.01	33.51	39.22	25.89	0.89	0.89	0.01	30.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	1.03	1.05	0.98	0.39	0.39	0.01	0.95
d, Delay for Lane Group [s/veh]	85.74	56.04	61.75	82.30	9.18	9.18	36.84	77.82
Lane Group LOS	F	F	F	F	A	A	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.06	36.55	37.73	3.61	4.57	4.57	0.04	13.34
50th-Percentile Queue Length [ft/ln]	1.50	913.71	943.37	90.24	114.17	114.17	1.12	333.47
95th-Percentile Queue Length [veh/ln]	0.11	47.58	49.70	6.50	8.07	8.07	0.08	19.33
95th-Percentile Queue Length [ft/ln]	2.69	1189.58	1242.55	162.44	201.79	201.79	2.02	483.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	85.74	58.74	61.75	82.30	9.18	9.18	36.84	36.84	36.84	77.82	77.82	77.82
Movement LOS	F	E	E	F	A	A	D	D	D	E	E	E
d_A, Approach Delay [s/veh]	58.91			21.54			36.84			77.82		
Approach LOS	E			C			D			E		
d_I, Intersection Delay [s/veh]	49.39											
Intersection LOS	D											
Intersection V/C	1.044											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	49.50	49.50
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.648	1.732	2.447
Crosswalk LOS	F	D	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1250	1250	433	433
d_b, Bicycle Delay [s]	8.44	8.44	36.82	36.82
I_b,int, Bicycle LOS Score for Intersection	3.540	2.536	1.563	2.147
Bicycle LOS	D	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	50.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.951

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐├			┐│┌			┐├			┐├		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	96	26	44	44	18	7	71	33	18	112	70
Total Analysis Volume [veh/h]	230	385	102	176	175	72	27	282	133	72	448	278
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	30	0	14	22	0	12	45	0	11	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	27	10	23	23	4	41	6	43
g / C, Green / Cycle	0.15	0.27	0.10	0.23	0.23	0.04	0.41	0.06	0.43
(v / s)_i Volume / Saturation Flow Rate	0.13	0.27	0.10	0.09	0.05	0.02	0.23	0.04	0.41
s, saturation flow rate [veh/h]	1781	1803	1781	1870	1589	1781	1770	1781	1752
c, Capacity [veh/h]	263	495	178	424	360	66	717	108	751
d1, Uniform Delay [s]	41.69	36.07	44.94	33.01	31.34	47.09	23.12	45.99	27.88
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.13	0.11	0.42
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.81	36.76	28.58	2.96	1.25	4.04	0.92	6.92	23.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.98	0.99	0.41	0.20	0.41	0.58	0.67	0.97
d, Delay for Lane Group [s/veh]	50.50	72.83	73.52	35.97	32.58	51.13	24.04	52.91	50.89
Lane Group LOS	D	E	E	D	C	D	C	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.19	16.74	5.69	3.90	1.51	0.72	7.33	1.91	20.32
50th-Percentile Queue Length [ft/ln]	154.85	418.41	142.23	97.46	37.79	17.90	183.15	47.87	508.07
95th-Percentile Queue Length [veh/ln]	10.28	23.45	9.60	7.02	2.72	1.29	11.77	3.45	27.72
95th-Percentile Queue Length [ft/ln]	256.89	586.14	240.03	175.44	68.01	32.21	294.13	86.17	692.90

Movement, Approach, & Intersection Results

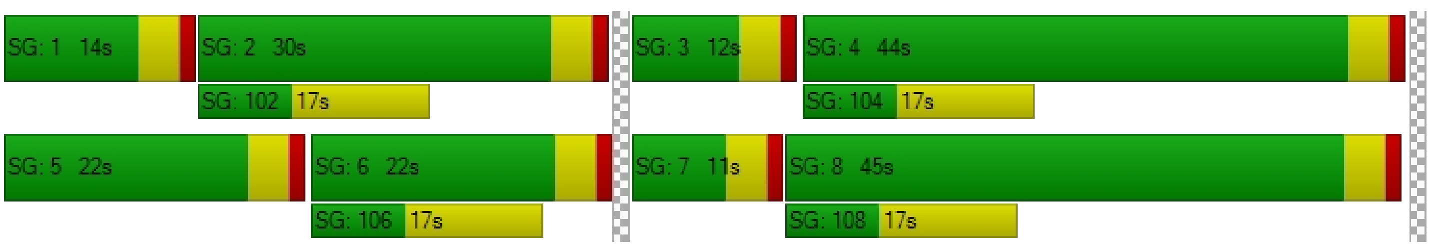
d_M, Delay for Movement [s/veh]	50.50	72.83	72.83	73.52	35.97	32.58	51.13	24.04	24.04	52.91	50.89	50.89
Movement LOS	D	E	E	E	D	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]		65.67			51.02			25.70			51.07	
Approach LOS		E			D			C			D	
d_I, Intersection Delay [s/veh]	50.75											
Intersection LOS	D											
Intersection V/C	0.951											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	2.359	2.452	2.523	2.534
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	360	820	800
d_b, Bicycle Delay [s]	27.38	33.62	17.41	18.00
I_b,int, Bicycle LOS Score for Intersection	2.743	2.258	2.289	2.876
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.852

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	187	74	10	95	37	66	78	29	24	46	5
Total Analysis Volume [veh/h]	228	746	297	41	381	147	263	312	115	97	185	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	28	0	11	23	0	18	21	0	20	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	35	35	4	28	28	14	18	18	6	11
g / C, Green / Cycle	0.15	0.44	0.44	0.05	0.34	0.34	0.17	0.23	0.23	0.08	0.14
(v / s)_i Volume / Saturation Flow Rate	0.13	0.40	0.19	0.02	0.20	0.09	0.15	0.17	0.07	0.05	0.11
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	1781	1837
c, Capacity [veh/h]	267	820	697	96	641	544	304	428	364	140	252
d1, Uniform Delay [s]	33.22	21.02	15.54	36.74	21.77	19.10	32.39	28.61	25.69	36.00	33.61
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.55	15.86	1.90	2.97	4.04	1.22	7.41	2.39	0.49	5.97	6.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.91	0.43	0.43	0.59	0.27	0.87	0.73	0.32	0.69	0.82
d, Delay for Lane Group [s/veh]	40.77	36.88	17.44	39.71	25.81	20.32	39.79	30.99	26.19	41.98	39.96
Lane Group LOS	D	D	B	D	C	C	D	C	C	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.46	14.07	3.45	0.79	5.78	1.90	5.08	5.21	1.68	1.92	3.97
50th-Percentile Queue Length [ft/ln]	111.42	351.87	86.18	19.87	144.46	47.43	127.11	130.19	41.99	48.12	99.23
95th-Percentile Queue Length [veh/ln]	7.92	20.23	6.20	1.43	9.72	3.42	8.78	8.95	3.02	3.46	7.14
95th-Percentile Queue Length [ft/ln]	197.98	505.69	155.12	35.76	243.02	85.38	219.56	223.75	75.59	86.61	178.61

Movement, Approach, & Intersection Results

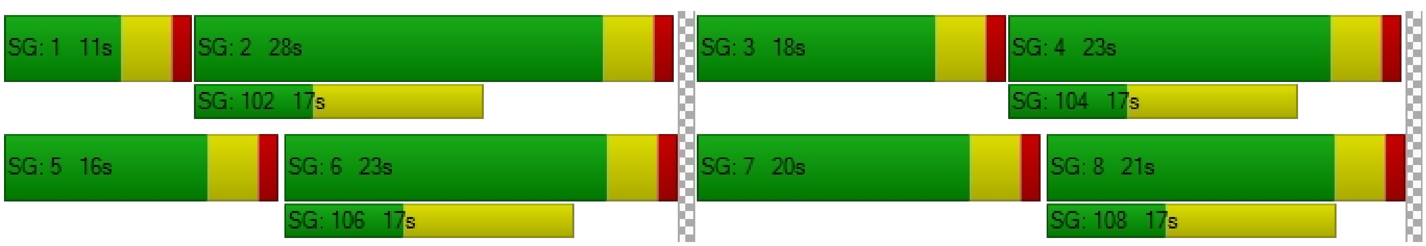
d_M, Delay for Movement [s/veh]	40.77	36.88	17.44	39.71	25.81	20.32	39.79	30.99	26.19	41.98	39.96	39.96
Movement LOS	D	D	B	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	33.04			25.39			33.55			40.61		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	32.43											
Intersection LOS	C											
Intersection V/C	0.852											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	29.76	29.76	29.76
I_p,int, Pedestrian LOS Score for Intersection	2.960	2.839	2.683	2.550
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	475	425	475
d_b, Bicycle Delay [s]	19.60	23.26	24.81	23.26
I_b,int, Bicycle LOS Score for Intersection	3.657	2.498	2.698	2.060
Bicycle LOS	D	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	54.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.005

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	710	188	282	170	162	1598
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	710	188	282	170	162	1598
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	178	47	71	43	41	400
Total Analysis Volume [veh/h]	710	188	282	170	162	1598
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	0	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	45	0	0	60	60	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	41	41	56	56	56	56
g / C, Green / Cycle	0.39	0.39	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.40	0.12	0.12	0.09	0.09	0.57
s, saturation flow rate [veh/h]	1781	1589	2377	1870	1870	2813
c, Capacity [veh/h]	694	620	1185	998	998	1502
d1, Uniform Delay [s]	31.99	22.14	16.72	12.53	12.47	24.44
k, delay calibration	0.48	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	39.28	0.27	0.47	0.37	0.35	42.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.02	0.30	0.24	0.17	0.16	1.06
d, Delay for Lane Group [s/veh]	71.27	22.41	17.19	12.90	12.82	66.74
Lane Group LOS	F	C	B	B	B	F
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	23.22	2.98	1.91	1.89	1.79	24.25
50th-Percentile Queue Length [ft/ln]	580.58	74.49	47.70	47.32	44.87	606.26
95th-Percentile Queue Length [veh/ln]	31.64	5.36	3.43	3.41	3.23	33.92
95th-Percentile Queue Length [ft/ln]	790.93	134.09	85.85	85.17	80.76	848.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	71.27	22.41	17.19	12.90	12.82	66.74
Movement LOS	F	C	B	B	B	F
d_A, Approach Delay [s/veh]	61.04		15.58		61.78	
Approach LOS	E		B		E	
d_I, Intersection Delay [s/veh]	54.85					
Intersection LOS	D					
Intersection V/C	1.005					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.50	52.50	52.50
I_b,int, Bicycle LOS Score for Intersection	4.132	4.878	7.036
Bicycle LOS	D	E	F

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	28.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.825

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	14	62	37	5	6	9	129	7	15	59	27
Total Analysis Volume [veh/h]	70	55	246	147	19	25	34	517	29	61	235	106
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	466	412	418	445	449	380	413
Degree of Utilization, x	0.80	0.46	0.08	0.61	0.61	0.16	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	7.27	2.39	0.26	4.01	3.94	0.56	7.65
95th-Percentile Queue Length [ft]	181.79	59.75	6.60	100.28	98.48	14.12	191.30
Approach Delay [s/veh]	34.68	19.09	21.95			37.03	
Approach LOS	D	C	C			E	
Intersection Delay [s/veh]	28.58						
Intersection LOS	D						

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.082

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	433	1686	215	18	806	0	0	302	305	159	810	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	433	1686	215	18	806	0	0	302	305	159	810	64
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	422	54	5	202	0	0	76	76	40	203	16
Total Analysis Volume [veh/h]	433	1686	215	18	806	0	0	302	305	159	810	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	33	33	19	19	19	19	19
g / C, Green / Cycle	0.55	0.55	0.55	0.55	0.55	0.55	0.32	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.64	0.33	0.14	0.06	0.16	0.00	0.09	0.09	0.19	0.37	0.34
s, saturation flow rate [veh/h]	676	5094	1589	292	5094	1589	1685	1702	1589	1242	1669
c, Capacity [veh/h]	408	2792	871	203	2792	871	597	543	507	477	532
d1, Uniform Delay [s]	21.01	9.18	7.10	16.41	7.29	0.00	15.20	15.31	17.26	22.71	20.48
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.26	0.22
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	61.91	0.98	0.68	0.86	0.26	0.00	0.22	0.28	1.15	21.71	50.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.06	0.60	0.25	0.09	0.29	0.00	0.25	0.28	0.60	0.96	1.08
d, Delay for Lane Group [s/veh]	82.92	10.16	7.78	17.27	7.56	0.00	15.42	15.59	18.41	44.42	71.10
Lane Group LOS	F	B	A	B	A	A	B	B	B	D	F
Critical Lane Group	Yes	No	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	12.64	4.15	1.32	0.19	1.04	0.00	1.42	1.46	3.37	9.08	14.12
50th-Percentile Queue Length [ft/ln]	316.00	103.76	32.93	4.79	26.00	0.00	35.61	36.45	84.24	227.07	353.06
95th-Percentile Queue Length [veh/ln]	19.29	7.47	2.37	0.34	1.87	0.00	2.56	2.62	6.07	14.03	21.25
95th-Percentile Queue Length [ft/ln]	482.16	186.76	59.27	8.62	46.80	0.00	64.11	65.61	151.63	350.63	531.36

Movement, Approach, & Intersection Results

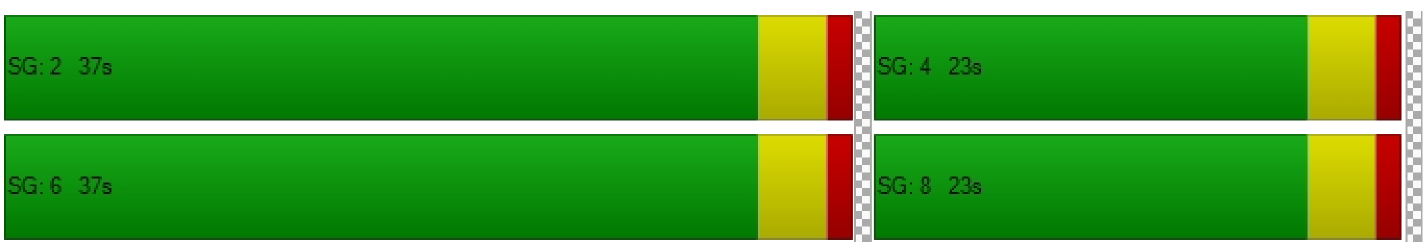
d_M, Delay for Movement [s/veh]	82.92	10.16	7.78	17.27	7.56	0.00	15.42	15.50	18.41	44.42	61.24	71.10
Movement LOS	F	B	A	B	A	A	B	B	B	D	E	E
d_A, Approach Delay [s/veh]	23.44			7.77			16.96			59.26		
Approach LOS	C			A			B			E		
d_I, Intersection Delay [s/veh]	27.64											
Intersection LOS	C											
Intersection V/C	1.082											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1100	1100	633	633
d_b, Bicycle Delay [s]	6.08	6.08	14.01	14.01
I_b,int, Bicycle LOS Score for Intersection	2.843	2.013	2.060	2.412
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



PROPOSED GENERAL PLAN BUILDOUT

Desert Hot Springs General Plan Update

Vistro File: G:\...\PGP AM.vistro
Report File: G:\...\Proposed GP AM.pdf

Scenario 1 Proposed General Plan
6/4/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	NB Thru	0.985	35.9	D
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.941	46.3	D
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.480	15.2	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.985	235.0	F
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Thru	0.967	10,000.0	F
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Thru	3.402	635.3	F
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	1.110	85.3	F
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	WB Left	0.774	18.0	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	2.087	233.3	F
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	SB Thru	1.818	209.2	F
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	2.251	350.6	F
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	SB Thru	0.679	16.0	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.424	11.4	B
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.559	23.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.512	19.4	B
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	WB Left	1.022	51.1	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	1.217	111.5	F

19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	WB Thru	34.355	10,000.0	F
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	EB Thru	1.426	162.8	F
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.619	26.6	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.981	61.9	E
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	SB Left	2.488	403.6	F
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.922	25.9	D
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Thru	2.170	10,000.0	F
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Thru	0.708	10,000.0	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.985

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	4	244	350	0	0	0	0	0	0	76
Total Analysis Volume [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	17	0	55	61	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	13	13	51	64	64	19	19	19
g / C, Green / Cycle	0.00	0.14	0.14	0.54	0.67	0.67	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.12	0.01	0.55	0.39	0.00	0.00	0.00	0.19
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1870	1589
c, Capacity [veh/h]	1	492	219	954	2397	1070	412	412	318
d1, Uniform Delay [s]	0.00	40.18	35.61	22.06	8.36	0.00	30.41	0.00	37.55
k, delay calibration	0.11	0.50	0.50	0.49	0.50	0.50	0.11	0.11	0.16
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	19.79	0.56	34.78	1.05	0.00	0.00	0.00	19.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.88	0.06	1.02	0.58	0.00	0.00	0.00	0.95
d, Delay for Lane Group [s/veh]	0.00	59.97	36.16	56.85	9.40	0.00	30.41	0.00	56.71
Lane Group LOS	A	E	D	F	A	A	C	A	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	5.86	0.29	26.09	5.65	0.00	0.02	0.00	8.09
50th-Percentile Queue Length [ft/ln]	0.00	146.44	7.31	652.33	141.27	0.00	0.46	0.00	202.26
95th-Percentile Queue Length [veh/ln]	0.00	9.83	0.53	35.12	9.55	0.00	0.03	0.00	12.76
95th-Percentile Queue Length [ft/ln]	0.00	245.67	13.15	878.11	238.74	0.00	0.83	0.00	318.88

Movement, Approach, & Intersection Results

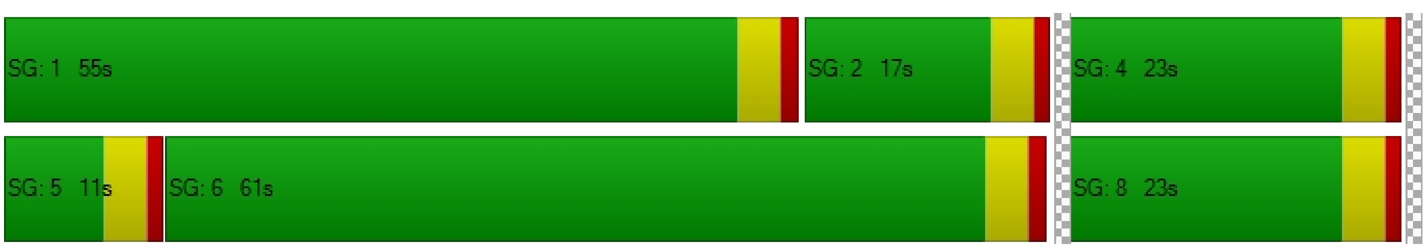
d_M, Delay for Movement [s/veh]	0.00	59.97	36.16	56.85	9.40	0.00	30.41	30.41	30.41	0.00	0.00	56.71
Movement LOS	A	E	D	F	A	A	C	C	C	A	A	E
d_A, Approach Delay [s/veh]	59.22			28.89			30.41			56.71		
Approach LOS	E			C			C			E		
d_I, Intersection Delay [s/veh]	35.92											
Intersection LOS	D											
Intersection V/C	0.985											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	274	1200	400	400
d_b, Bicycle Delay [s]	35.39	7.60	30.40	30.40
I_b,int, Bicycle LOS Score for Intersection	1.928	3.520	1.561	2.060
Bicycle LOS	A	D	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	46.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.941

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	128	32	25	498	1	1	6	4	101	5	10
Total Analysis Volume [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	59	59	0	0	11	0	0	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	60	60	9	66	66	5	5	30	30
g / C, Green / Cycle	0.02	0.50	0.50	0.07	0.55	0.55	0.04	0.04	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.08	0.06	0.56	0.00	0.01	0.01	0.24	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1863	1589	1785	1589
c, Capacity [veh/h]	30	1773	791	127	1966	878	81	69	454	404
d1, Uniform Delay [s]	58.32	17.66	16.44	54.84	26.88	12.07	55.67	55.44	43.79	34.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.32	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.19	0.41	0.43	10.25	23.51	0.01	2.14	1.56	21.12	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.29	0.16	0.79	1.01	0.00	0.31	0.22	0.93	0.09
d, Delay for Lane Group [s/veh]	64.51	18.07	16.87	65.09	50.39	12.08	57.81	57.00	64.90	34.30
Lane Group LOS	E	B	B	E	F	B	E	E	E	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.34	3.75	1.77	3.17	29.32	0.04	0.78	0.47	14.25	0.82
50th-Percentile Queue Length [ft/ln]	8.42	93.66	44.27	79.20	733.07	1.10	19.58	11.73	356.34	20.57
95th-Percentile Queue Length [veh/ln]	0.61	6.74	3.19	5.70	38.62	0.08	1.41	0.84	20.45	1.48
95th-Percentile Queue Length [ft/ln]	15.15	168.59	79.69	142.56	965.38	1.99	35.25	21.12	511.13	37.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.51	18.07	16.87	65.09	50.39	12.08	57.81	57.81	57.00	64.90	64.90	34.30
Movement LOS	E	B	B	E	F	B	E	E	E	E	E	C
d_A, Approach Delay [s/veh]	18.56			51.02			57.51			62.38		
Approach LOS	B			D			E			E		
d_I, Intersection Delay [s/veh]	46.25											
Intersection LOS	D											
Intersection V/C	0.941											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	917	117	583
d_b, Bicycle Delay [s]	53.20	17.60	53.20	30.10
I_b,int, Bicycle LOS Score for Intersection	2.093	3.288	1.626	2.322
Bicycle LOS	B	C	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	258.00	103.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Base Volume Input [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	33	17	24	98	10	4	4	5	51	3	18
Total Analysis Volume [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	17	40	0	0	20	0	0	20	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No	No			No			No	
Maximum Recall		No		No	No			No			No	
Pedestrian Recall		No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	6	25	27	27	27
g / C, Green / Cycle	0.26	0.26	0.09	0.42	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.11	0.04	0.05	0.23	0.03	0.15	0.05
s, saturation flow rate [veh/h]	1312	1589	1781	1839	1580	1376	1626
c, Capacity [veh/h]	411	418	170	781	778	665	719
d1, Uniform Delay [s]	17.92	17.09	26.03	13.01	9.63	11.07	9.88
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	0.18	2.99	0.61	0.16	1.20	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.17	0.57	0.55	0.06	0.31	0.12
d, Delay for Lane Group [s/veh]	18.45	17.27	29.02	13.62	9.78	12.27	10.22
Lane Group LOS	B	B	C	B	A	B	B
Critical Lane Group	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.38	0.62	1.28	3.30	0.36	1.55	0.57
50th-Percentile Queue Length [ft/ln]	34.59	15.49	31.97	82.47	8.91	38.84	14.16
95th-Percentile Queue Length [veh/ln]	2.49	1.12	2.30	5.94	0.64	2.80	1.02
95th-Percentile Queue Length [ft/ln]	62.26	27.89	57.55	148.45	16.03	69.91	25.49

Movement, Approach, & Intersection Results

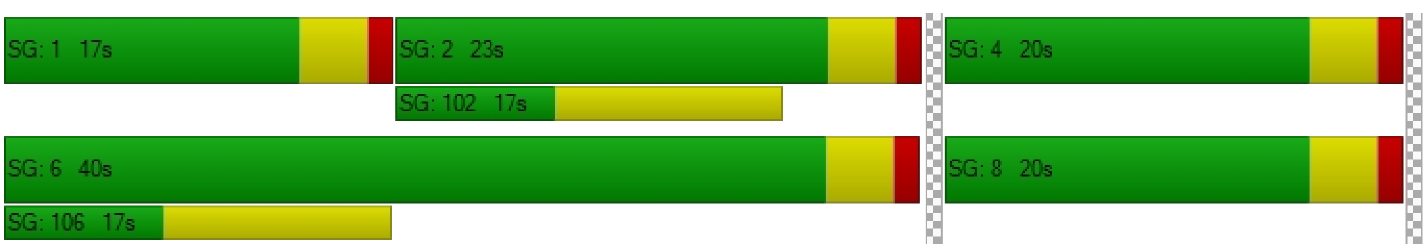
d_M, Delay for Movement [s/veh]	18.45	18.45	17.27	29.02	13.62	13.62	9.78	9.78	9.78	12.27	10.22	10.22
Movement LOS	B	B	B	C	B	B	A	A	A	B	B	B
d_A, Approach Delay [s/veh]		18.07			16.44			9.78			11.66	
Approach LOS		B			B			A			B	
d_I, Intersection Delay [s/veh]						15.19						
Intersection LOS						B						
Intersection V/C						0.480						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.773	2.300
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	1200	533	533
d_b, Bicycle Delay [s]	14.01	4.80	16.13	16.13
I_b,int, Bicycle LOS Score for Intersection	1.916	2.432	1.640	2.040
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	235.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.985

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	56	50	17	144	30	11	63	48	84	54	4
Total Analysis Volume [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	378	414	762	378	411	571
Degree of Utilization, x	0.83	0.48	1.98	0.78	0.46	1.51

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	7.64	2.54	52.69	6.59	2.37	31.13
95th-Percentile Queue Length [ft]	191.09	63.45	1317.13	164.78	59.37	778.28
Approach Delay [s/veh]	35.30		473.71	31.19		269.49
Approach LOS	E		F	D		F
Intersection Delay [s/veh]	234.96					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.967

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Base Volume Input [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	129	6	8	334	2	6	27	5	9	14	10
Total Analysis Volume [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.03	0.01	0.00	4.99	1.92	0.11	0.00	0.97	0.07
d_M, Delay for Movement [s/veh]	12.12	0.00	0.00	8.60	0.00	0.00	3646.49	2962.46	2916.62	10000.0	10000.0	10000.0
Movement LOS	B	A	A	A	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.09	0.09	0.09	19.03	19.03	19.03	18.84	18.84	18.84
95th-Percentile Queue Length [ft/ln]	1.04	1.04	1.04	2.33	2.33	2.33	475.85	475.85	475.85	470.95	470.95	470.95
d_A, Approach Delay [s/veh]	0.16			0.19			3065.79			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	800.10											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	635.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.402

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	120	48	16	316	21	2	72	49	135	107	11
Total Analysis Volume [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	561	424	1327	422	379	409	968	420
Degree of Utilization, x	1.44	0.45	3.40	0.19	0.78	0.48	2.56	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	28.72	2.26	121.22	0.71	6.46	2.55	78.35	0.33
95th-Percentile Queue Length [ft]	718.07	56.55	3030.61	17.80	161.49	63.68	1958.87	8.28
Approach Delay [s/veh]	180.99		1042.25		30.76		699.40	
Approach LOS	F		F		D		F	
Intersection Delay [s/veh]	635.33							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	85.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.110

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	202	65	21	513	16	26	0	137	118	17	31
Total Analysis Volume [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	34	0	26	46	0	39	41	0	19	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	45	45	7	42	42	9	37	37	15	43	43
g / C, Green / Cycle	0.08	0.38	0.38	0.06	0.35	0.35	0.07	0.31	0.31	0.13	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.09	0.23	0.16	0.05	0.39	0.39	0.06	0.00	0.34	0.14	0.06	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1841	1781	1870	1589	3459	1771	1589
c, Capacity [veh/h]	148	1337	597	105	1250	646	130	574	488	432	636	571
d1, Uniform Delay [s]	55.00	30.24	27.93	55.70	38.93	38.93	54.74	0.00	41.57	52.50	26.09	26.11
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	52.67	2.02	2.27	11.83	62.46	72.26	10.38	0.00	78.75	50.03	0.11	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.06	0.60	0.43	0.78	1.11	1.12	0.79	0.00	1.12	1.09	0.16	0.16
d, Delay for Lane Group [s/veh]	107.67	32.26	30.20	67.53	101.39	111.19	65.13	0.00	120.32	102.53	26.21	26.24
Lane Group LOS	F	C	C	E	F	F	E	A	F	F	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.47	9.13	5.56	2.70	27.82	30.54	3.44	0.00	24.91	9.50	1.97	1.79
50th-Percentile Queue Length [ft/ln]	161.76	228.32	138.88	67.39	695.61	763.43	85.94	0.00	622.70	237.47	49.15	44.76
95th-Percentile Queue Length [veh/ln]	10.87	14.09	9.42	4.85	39.17	42.66	6.19	0.00	35.57	15.09	3.54	3.22
95th-Percentile Queue Length [ft/ln]	271.85	352.23	235.52	121.31	979.21	1066.44	154.69	0.00	889.26	377.35	88.46	80.58

Movement, Approach, & Intersection Results

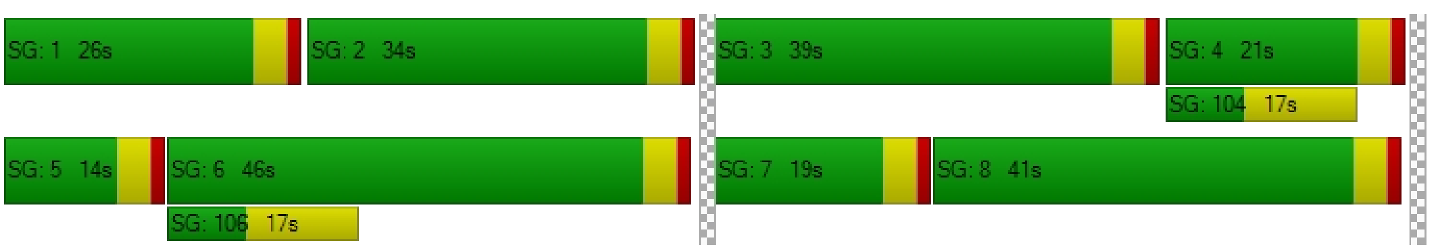
d_M, Delay for Movement [s/veh]	107.67	32.26	30.20	67.53	104.54	111.19	65.13	0.00	120.32	102.53	26.21	26.23
Movement LOS	F	C	C	E	F	F	E	A	F	F	C	C
d_A, Approach Delay [s/veh]	41.58			103.35			111.59			80.63		
Approach LOS	D			F			F			F		
d_I, Intersection Delay [s/veh]	85.35											
Intersection LOS	F											
Intersection V/C	1.110											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	49.50	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.428	2.374	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	700	617	283
d_b, Bicycle Delay [s]	33.75	25.35	28.70	44.20
I_b,int, Bicycle LOS Score for Intersection	2.568	2.767	2.634	2.652
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.774

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	10	45	8	33	5	4	27	24	98	31	6
Total Analysis Volume [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	467	541	457	487	536	457	489	539	508	546	610
Degree of Utilization, x	0.11	0.41	0.07	0.27	0.04	0.03	0.22	0.18	0.77	0.23	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	1.98	0.22	1.07	0.11	0.09	0.84	0.65	6.94	0.87	0.12
95th-Percentile Queue Length [ft]	9.13	49.41	5.44	26.70	2.75	2.36	20.93	16.26	173.44	21.70	2.94
Approach Delay [s/veh]	13.41		12.17			11.49			24.86		
Approach LOS	B		B			B			C		
Intersection Delay [s/veh]	17.98										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	233.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.087

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	46	22	37	144	26	27	64	37	30	66	24
Total Analysis Volume [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	391	827	382	420	384	423
Degree of Utilization, x	0.82	2.09	0.95	0.35	0.99	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	7.32	59.10	10.45	1.53	11.73	0.87
95th-Percentile Queue Length [ft]	183.04	1477.42	261.13	38.24	293.37	21.85
Approach Delay [s/veh]	42.12	518.23	50.54		62.28	
Approach LOS	E	F	F		F	
Intersection Delay [s/veh]	233.33					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	209.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.818

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	61	28	27	184	8	1	5	26	72	22	8
Total Analysis Volume [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	487	878	421	426	489
Degree of Utilization, x	0.87	1.82	0.31	0.88	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	9.35	55.33	1.30	9.09	0.21
95th-Percentile Queue Length [ft]	233.71	1383.33	32.43	227.16	5.24
Approach Delay [s/veh]	42.90	394.45	15.36	45.04	
Approach LOS	E	F	C	E	
Intersection Delay [s/veh]	209.18				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	350.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.251

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	16	12	75	83	109	32	53	42	51	154	45
Total Analysis Volume [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	396	1066	401	440	409	793
Degree of Utilization, x	0.40	2.25	0.32	0.86	0.50	1.79

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.89	79.11	1.37	8.76	2.67	49.83
95th-Percentile Queue Length [ft]	47.25	1977.76	34.23	218.97	66.86	1245.73
Approach Delay [s/veh]	18.04	586.97	37.15		311.00	
Approach LOS	C	F	E		F	
Intersection Delay [s/veh]	350.64					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	12	18	13	70	22	11	9	45	35	11	4
Total Analysis Volume [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	582	619	596	543
Degree of Utilization, x	0.41	0.68	0.44	0.37

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.01	5.24	2.20	1.67
95th-Percentile Queue Length [ft]	50.33	130.99	55.08	41.75
Approach Delay [s/veh]	13.47	20.23	13.62	13.41
Approach LOS	B	C	B	B
Intersection Delay [s/veh]	16.03			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.424

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	4	6	0	7	1	1	9	58	19	11	1
Total Analysis Volume [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	568	617	702	554	624	605	693	558	663
Degree of Utilization, x	0.42	0.02	0.04	0.05	0.01	0.06	0.34	0.22	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.10	0.07	0.11	0.15	0.02	0.20	1.47	0.82	0.01
95th-Percentile Queue Length [ft]	52.49	1.87	2.76	3.83	0.48	5.02	36.86	20.45	0.23
Approach Delay [s/veh]		12.85		9.40		10.30		10.88	
Approach LOS		B		A		B		B	
Intersection Delay [s/veh]					11.38				
Intersection LOS					B				

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	77	14	11	125	12	8	50	47	20	51	11
Total Analysis Volume [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	17	27	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	34	34	4	28	28	3	11	11	6	13	13
g / C, Green / Cycle	0.15	0.48	0.48	0.06	0.39	0.39	0.05	0.15	0.15	0.08	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.12	0.10	0.10	0.02	0.15	0.15	0.02	0.11	0.12	0.05	0.07	0.07
s, saturation flow rate [veh/h]	1781	1870	1772	1781	1870	1812	1781	1870	1589	1781	1870	1761
c, Capacity [veh/h]	260	896	849	106	735	712	84	285	242	144	348	327
d1, Uniform Delay [s]	29.08	10.58	10.59	31.85	15.20	15.22	32.44	28.27	28.62	31.07	24.94	24.98
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.13	0.53	0.56	2.57	1.48	1.54	2.65	3.16	5.21	3.38	0.62	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.21	0.21	0.41	0.38	0.38	0.37	0.70	0.77	0.56	0.36	0.37
d, Delay for Lane Group [s/veh]	35.20	11.10	11.15	34.42	16.68	16.75	35.09	31.43	33.83	34.45	25.56	25.67
Lane Group LOS	D	B	B	C	B	B	D	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.70	1.58	1.52	0.76	3.13	3.06	0.55	3.25	3.19	1.39	1.75	1.70
50th-Percentile Queue Length [ft/ln]	92.55	39.42	37.89	19.07	78.13	76.38	13.75	81.34	79.83	34.80	43.86	42.60
95th-Percentile Queue Length [veh/ln]	6.66	2.84	2.73	1.37	5.63	5.50	0.99	5.86	5.75	2.51	3.16	3.07
95th-Percentile Queue Length [ft/ln]	166.60	70.95	68.19	34.32	140.63	137.48	24.75	146.41	143.69	62.64	78.96	76.67

Movement, Approach, & Intersection Results

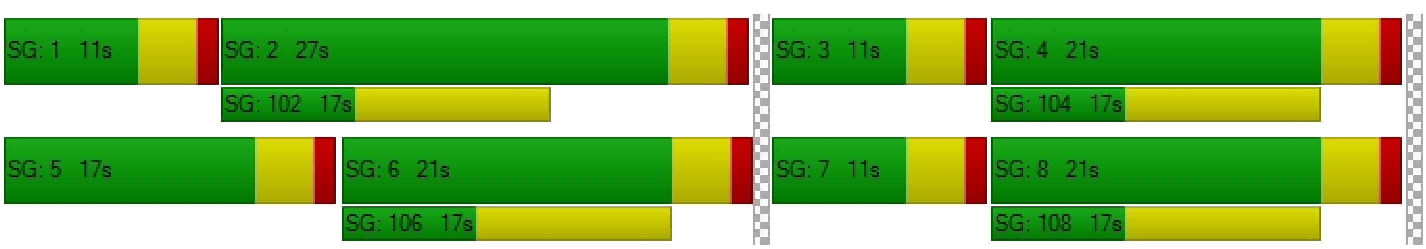
d_M, Delay for Movement [s/veh]	35.20	11.12	11.15	34.42	16.71	16.75	35.09	31.43	33.83	34.45	25.60	25.67
Movement LOS	D	B	B	C	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.99			18.03			32.77			27.81		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	23.51											
Intersection LOS	C											
Intersection V/C	0.559											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.591	2.507	2.486	2.428
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	657	486	486	486
d_b, Bicycle Delay [s]	15.78	20.06	20.06	20.06
I_b,int, Bicycle LOS Score for Intersection	2.035	2.047	1.904	1.828
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	156	12	26	181	7	7	34	26	33	34	31
Total Analysis Volume [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	30	30	6	31	31	3	7	7	6	10	10
g / C, Green / Cycle	0.07	0.46	0.46	0.09	0.48	0.48	0.05	0.11	0.11	0.10	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.06	0.20	0.20	0.02	0.07	0.07	0.07	0.07	0.08
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1846	1781	1870	1616	1781	1870	1589
c, Capacity [veh/h]	125	850	829	166	893	882	82	200	173	178	301	256
d1, Uniform Delay [s]	29.12	11.87	11.87	28.51	11.16	11.16	30.18	27.85	28.00	28.58	24.80	24.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	1.40	1.44	3.91	1.47	1.49	2.54	3.04	4.28	6.14	1.08	1.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.40	0.40	0.63	0.42	0.42	0.35	0.61	0.66	0.75	0.46	0.48
d, Delay for Lane Group [s/veh]	31.55	13.27	13.31	32.42	12.63	12.65	32.72	30.89	32.28	34.72	25.88	26.28
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.86	3.12	3.05	1.67	3.35	3.31	0.46	1.83	1.76	2.17	1.84	1.66
50th-Percentile Queue Length [ft/ln]	21.59	77.91	76.32	41.64	83.78	82.82	11.56	45.80	44.04	54.18	46.05	41.60
95th-Percentile Queue Length [veh/ln]	1.55	5.61	5.50	3.00	6.03	5.96	0.83	3.30	3.17	3.90	3.32	3.00
95th-Percentile Queue Length [ft/ln]	38.86	140.23	137.38	74.96	150.80	149.08	20.81	82.43	79.28	97.53	82.89	74.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.55	13.29	13.31	32.42	12.64	12.65	32.72	31.02	32.28	34.72	25.88	26.28
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.67			15.07			31.69			29.00		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.36											
Intersection LOS	B											
Intersection V/C	0.512											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.754	2.652	2.291	2.459
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.158	2.266	1.780	2.206
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	51.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.022

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	163	52	26	244	8	13	63	103	88	62	24
Total Analysis Volume [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	11	28	0	12	27	0	21	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	27	27	7	24	24	5	23	23	17	35	35
g / C, Green / Cycle	0.11	0.31	0.31	0.07	0.27	0.27	0.06	0.25	0.25	0.19	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.13	0.06	0.27	0.02	0.03	0.13	0.26	0.20	0.13	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	198	1089	486	131	954	426	101	475	404	336	722	614
d1, Uniform Delay [s]	40.01	26.57	24.94	41.02	32.95	24.60	41.25	28.95	33.58	36.52	19.58	18.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.29	0.15	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	30.74	2.44	2.72	9.97	34.42	0.33	3.96	0.92	37.70	38.89	0.28	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.00	0.60	0.43	0.79	1.02	0.07	0.51	0.53	1.02	1.04	0.34	0.15
d, Delay for Lane Group [s/veh]	70.75	29.01	27.66	50.99	67.37	24.93	45.21	29.87	71.28	75.41	19.86	18.17
Lane Group LOS	F	C	C	D	F	C	D	C	F	F	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.90	5.98	3.71	2.56	14.48	0.52	1.20	4.58	12.51	10.76	3.57	1.25
50th-Percentile Queue Length [ft/ln]	147.59	149.51	92.67	63.89	361.93	13.00	29.91	114.43	312.76	268.98	89.18	31.36
95th-Percentile Queue Length [veh/ln]	9.90	9.99	6.67	4.60	20.97	0.94	2.15	8.09	18.47	16.49	6.42	2.26
95th-Percentile Queue Length [ft/ln]	247.62	249.77	166.80	115.00	524.30	23.40	53.83	202.15	461.83	412.13	160.53	56.46

Movement, Approach, & Intersection Results

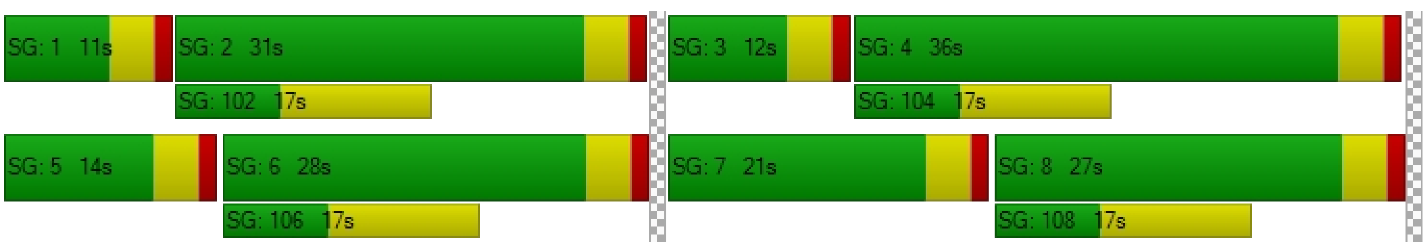
d_M, Delay for Movement [s/veh]	70.75	29.01	27.66	50.99	67.37	24.93	45.21	29.87	71.28	75.41	19.86	18.17
Movement LOS	F	C	C	D	F	C	D	C	F	F	B	B
d_A, Approach Delay [s/veh]	36.59			64.66			54.77			47.68		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	51.07											
Intersection LOS	D											
Intersection V/C	1.022											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
I_p,int, Pedestrian LOS Score for Intersection	3.112	2.814	2.610	2.488
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	533	511	711
d_b, Bicycle Delay [s]	22.05	24.20	24.94	18.69
I_b,int, Bicycle LOS Score for Intersection	2.433	2.474	2.738	2.706
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	111.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.217

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	155	23	14	505	24	10	19	77	93	58	16
Total Analysis Volume [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	49	0	19	56	0	11	23	0	24	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	54	54	6	52	52	5	19	19	20	34	34
g / C, Green / Cycle	0.07	0.47	0.47	0.05	0.45	0.45	0.04	0.16	0.16	0.17	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.08	0.17	0.06	0.03	0.57	0.06	0.02	0.04	0.19	0.21	0.12	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	125	1683	751	90	1613	720	79	306	260	310	549	466
d1, Uniform Delay [s]	53.50	19.38	16.98	53.48	31.45	18.32	53.74	41.88	48.10	47.51	32.80	29.88
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.26	0.31	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	73.66	0.62	0.33	6.29	118.14	0.39	4.93	0.40	101.33	109.23	0.52	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.12	0.37	0.12	0.60	1.25	0.13	0.51	0.24	1.18	1.20	0.42	0.13
d, Delay for Lane Group [s/veh]	127.16	20.00	17.32	59.77	149.59	18.71	58.67	42.28	149.43	156.75	33.32	30.01
Lane Group LOS	F	C	B	E	F	B	E	D	F	F	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.96	4.89	1.30	1.62	46.34	1.47	1.19	1.78	14.39	17.80	5.01	1.21
50th-Percentile Queue Length [ft/ln]	148.95	122.24	32.53	40.58	1158.42	36.71	29.84	44.54	359.76	444.95	125.28	30.30
95th-Percentile Queue Length [veh/ln]	10.31	8.52	2.34	2.92	67.01	2.64	2.15	3.21	22.25	26.97	8.68	2.18
95th-Percentile Queue Length [ft/ln]	257.70	212.90	58.56	73.04	1675.13	66.09	53.70	80.17	556.32	674.36	217.06	54.54

Movement, Approach, & Intersection Results

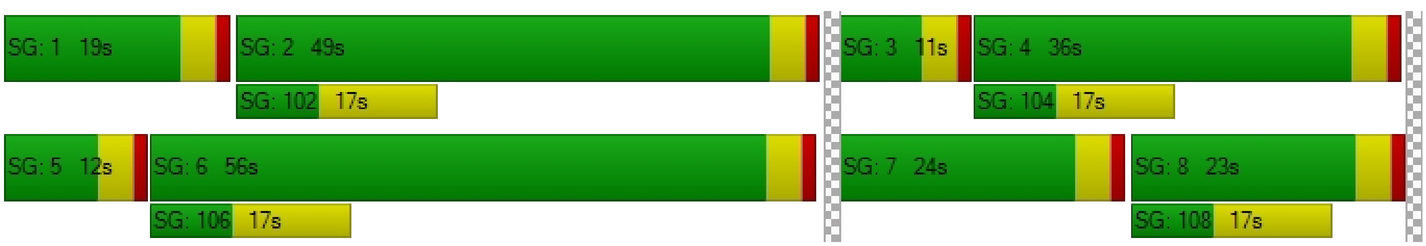
d_M, Delay for Movement [s/veh]	127.16	20.00	17.32	59.77	149.59	18.71	58.67	42.28	149.43	156.75	33.32	30.01
Movement LOS	F	C	B	E	F	B	E	D	F	F	C	C
d_A, Approach Delay [s/veh]	37.20			141.50			122.04			101.93		
Approach LOS	D			F			F			F		
d_I, Intersection Delay [s/veh]	111.46											
Intersection LOS	F											
Intersection V/C	1.217											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
I_p,int, Pedestrian LOS Score for Intersection	3.595	3.344	2.541	2.540
Crosswalk LOS	D	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	783	904	330	557
d_b, Bicycle Delay [s]	21.30	17.26	40.07	29.95
I_b,int, Bicycle LOS Score for Intersection	2.263	3.349	2.256	2.662
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	34.355

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	190	14	4	680	11	14	21	9	71	28	2
Total Analysis Volume [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.33	0.01	0.00	0.02	0.03	0.00	0.00	26.85	0.27	0.00	34.35	0.01
d_M, Delay for Movement [s/veh]	42.55	0.00	0.00	9.55	0.00	0.00	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Movement LOS	E	A	A	A	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	1.31	0.00	0.00	0.06	0.00	0.00	24.80	24.80	24.80	52.84	52.84	52.84
95th-Percentile Queue Length [ft/ln]	32.80	0.00	0.00	1.61	0.00	0.00	620.03	620.03	620.03	1320.97	1320.97	1320.97
d_A, Approach Delay [s/veh]	2.27			0.06			10000.00			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1367.80											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	162.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.426

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	197	30	37	742	16	25	91	35	41	29	8
Total Analysis Volume [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	21	0	62	72	0	0	22	0	0	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	64	64	11	69	69	18	18
g / C, Green / Cycle	0.06	0.61	0.61	0.10	0.66	0.66	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.04	0.22	0.07	0.08	0.83	0.04	0.36	0.39
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1653	789
c, Capacity [veh/h]	101	2177	972	182	2339	1044	324	188
d1, Uniform Delay [s]	48.40	10.18	8.56	46.14	18.01	6.43	44.53	45.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.07	0.47	0.26	8.40	124.79	0.11	397.37	316.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.36	0.12	0.81	1.27	0.06	1.86	1.65
d, Delay for Lane Group [s/veh]	54.47	10.64	8.81	54.53	142.81	6.54	441.90	362.70
Lane Group LOS	D	B	A	D	F	A	F	F
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.69	3.72	0.97	3.97	60.09	0.40	43.90	21.27
50th-Percentile Queue Length [ft/ln]	42.27	92.98	24.26	99.15	1502.31	10.04	1097.52	531.80
95th-Percentile Queue Length [veh/ln]	3.04	6.69	1.75	7.14	87.54	0.72	68.36	34.70
95th-Percentile Queue Length [ft/ln]	76.08	167.37	43.66	178.46	2188.41	18.08	1709.06	867.44

Movement, Approach, & Intersection Results

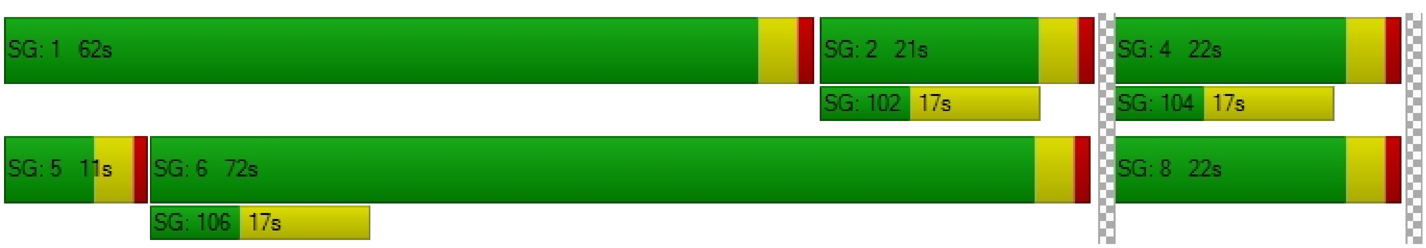
d_M, Delay for Movement [s/veh]	54.47	10.64	8.81	54.53	142.81	6.54	441.90	441.90	441.90	362.70	362.70	362.70
Movement LOS	D	B	A	D	F	A	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	13.27			136.04			441.90			362.70		
Approach LOS	B			F			F			F		
d_I, Intersection Delay [s/veh]	162.84											
Intersection LOS	F											
Intersection V/C	1.426											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.885	2.475	2.563
Crosswalk LOS	F	D	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	324	1295	343	343
d_b, Bicycle Delay [s]	36.88	6.52	36.04	36.04
I_b,int, Bicycle LOS Score for Intersection	2.359	4.182	2.553	2.073
Bicycle LOS	B	D	B	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	30	9	47	37	6	5	67	33	22	73	28
Total Analysis Volume [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	21	0	12	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	19	8	21	21	2	16	6	20
g / C, Green / Cycle	0.09	0.29	0.12	0.32	0.32	0.03	0.25	0.09	0.31
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.11	0.08	0.02	0.01	0.22	0.05	0.23
s, saturation flow rate [veh/h]	1781	1795	1781	1870	1589	1781	1767	1781	1783
c, Capacity [veh/h]	164	527	220	608	516	58	442	155	544
d1, Uniform Delay [s]	28.50	17.82	27.96	16.11	15.07	30.82	23.61	28.57	20.34
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.94	1.45	8.88	0.94	0.17	3.25	6.71	3.31	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.30	0.85	0.24	0.05	0.33	0.90	0.57	0.74
d, Delay for Lane Group [s/veh]	32.44	19.27	36.84	17.05	15.24	34.07	30.31	31.87	22.37
Lane Group LOS	C	B	D	B	B	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.68	1.95	3.20	1.61	0.25	0.32	6.04	1.38	5.12
50th-Percentile Queue Length [ft/ln]	42.09	48.83	80.09	40.26	6.15	8.11	151.11	34.41	127.88
95th-Percentile Queue Length [veh/ln]	3.03	3.52	5.77	2.90	0.44	0.58	10.08	2.48	8.82
95th-Percentile Queue Length [ft/ln]	75.77	87.89	144.16	72.46	11.07	14.59	251.91	61.94	220.60

Movement, Approach, & Intersection Results

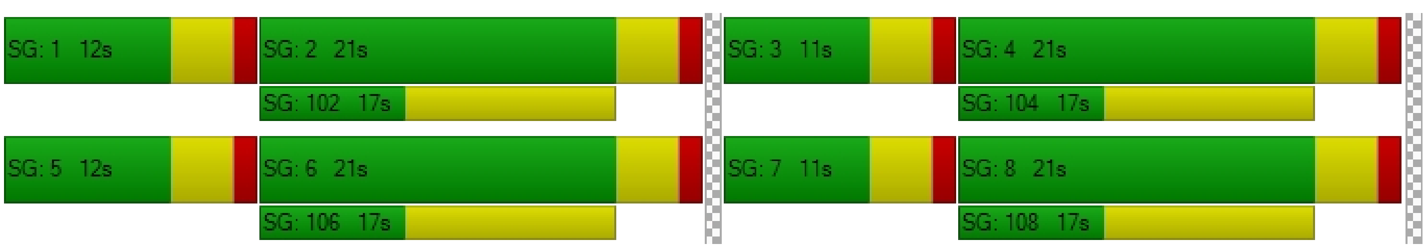
d_M, Delay for Movement [s/veh]	32.44	19.27	19.27	36.84	17.05	15.24	34.07	30.31	30.31	31.87	22.37	22.37
Movement LOS	C	B	B	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	24.49			27.27			30.48			24.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.64											
Intersection LOS	C											
Intersection V/C	0.619											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.092	2.286	2.384	2.348
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	1.989	2.150	2.246	2.373
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	61.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.981

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	29	13	2	131	60	19	41	66	58	89	5
Total Analysis Volume [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	27	0	35	51	0	26	34	0	19	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	53	1	48	6	30	15	39
g / C, Green / Cycle	0.05	0.46	0.01	0.42	0.06	0.26	0.13	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.00	0.43	0.04	0.25	0.13	0.20
s, saturation flow rate [veh/h]	1781	1772	1781	1772	1781	1686	1781	1853
c, Capacity [veh/h]	89	815	19	746	98	438	232	620
d1, Uniform Delay [s]	53.51	18.53	56.47	33.29	53.55	42.18	50.00	31.95
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.43	0.11	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.30	0.58	9.02	39.22	10.92	33.71	28.08	1.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.21	0.31	1.02	0.75	0.97	1.00	0.61
d, Delay for Lane Group [s/veh]	59.81	19.11	65.48	72.51	64.47	75.89	78.08	33.44
Lane Group LOS	E	B	E	F	E	E	F	C
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.59	2.60	0.21	26.80	2.32	15.28	8.16	8.40
50th-Percentile Queue Length [ft/ln]	39.84	65.12	5.35	669.99	57.96	381.94	204.05	210.07
95th-Percentile Queue Length [veh/ln]	2.87	4.69	0.39	35.93	4.17	21.69	12.86	13.16
95th-Percentile Queue Length [ft/ln]	71.72	117.22	9.63	898.27	104.32	542.20	321.55	328.92

Movement, Approach, & Intersection Results

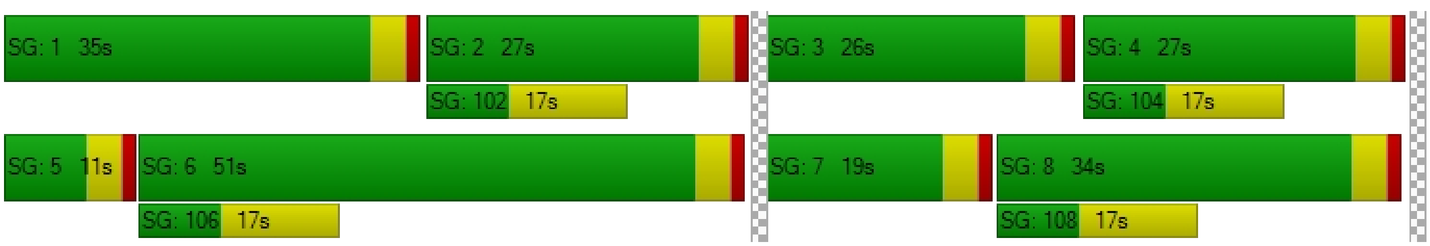
d_M, Delay for Movement [s/veh]	59.81	19.11	19.11	65.48	72.51	72.51	64.47	75.89	75.89	78.08	33.44	33.44
Movement LOS	E	B	B	E	E	E	E	E	E	F	C	C
d_A, Approach Delay [s/veh]	28.82			72.46			74.20			50.49		
Approach LOS	C			E			E			D		
d_I, Intersection Delay [s/veh]	61.89											
Intersection LOS	E											
Intersection V/C	0.981											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
I_p,int, Pedestrian LOS Score for Intersection	2.692	2.536	2.637	2.448
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	817	522	400
d_b, Bicycle Delay [s]	36.80	20.10	31.41	36.80
I_b,int, Bicycle LOS Score for Intersection	1.926	2.830	2.385	2.566
Bicycle LOS	A	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	403.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.488

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	1158	136	23	502	204	297
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1158	136	23	502	204	297
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	290	34	6	126	51	74
Total Analysis Volume [veh/h]	1158	136	23	502	204	297
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1294	529	473	520
Degree of Utilization, x	2.49	0.99	0.43	0.57

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	101.52	13.82	2.14	3.54
95th-Percentile Queue Length [ft]	2538.08	345.58	53.56	88.53
Approach Delay [s/veh]	691.00	63.60	17.43	
Approach LOS	F	F	C	
Intersection Delay [s/veh]	403.56			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	25.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.922

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	16	25	5	7	8	42	24	41	116	34
Total Analysis Volume [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	579	553	533	600	582	653
Degree of Utilization, x	0.13	0.27	0.06	0.43	0.28	0.92

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	1.08	0.20	2.19	1.16	12.16
95th-Percentile Queue Length [ft]	10.76	27.07	4.94	54.86	29.03	303.89
Approach Delay [s/veh]	10.12	11.89	12.86		35.07	
Approach LOS	B	B	B		E	
Intersection Delay [s/veh]	25.86					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.170

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	33	1273	69	0	267	332	485	301	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	33	1273	69	0	267	332	485	301	0
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	1.0000	1.0000	1.0000	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	8	318	17	0	67	83	121	75	0
Total Analysis Volume [veh/h]	0	0	0	33	1273	69	0	267	332	485	301	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	1.75	1.62	0.00	2.17	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1124.73	1118.76	10000.0	10000.0	0.00
Movement LOS				A	A	A		F	F	F	F	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.65	56.65	101.16	101.16	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1416.13	1416.13	2529.09	2529.09	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			1121.42			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	3091.21											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.708

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	74	425	90	0	0	0	0	270	0	0	646	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	425	90	0	0	0	0	270	0	0	646	42
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	106	23	0	0	0	0	68	0	0	162	11
Total Analysis Volume [veh/h]	74	425	90	0	0	0	0	270	0	0	646	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	1.50	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	10000.0	0.00	0.00	291.47	288.80
Movement LOS	A	A	A				F	F			F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	36.52	36.52	0.00	0.00	38.05	38.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	913.06	913.06	0.00	0.00	951.36	951.36
d_A, Approach Delay [s/veh]	0.00			0.00			10000.00			291.30		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1874.87											
Intersection LOS	F											

Desert Hot Springs General Plan Update

Vistro File: G:\...\PGP PM.vistro
Report File: G:\...\Proposed GP PM.pdf

Scenario 1 Proposed General Plan
6/4/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	WB Right	1.657	273.9	F
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.772	20.2	C
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.668	17.4	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	2.373	344.1	F
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Two-way stop	HCM 6th Edition	WB Thru	4.676	10,000.0	F
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	4.223	736.5	F
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	1.095	83.6	F
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	NB Right	0.872	22.6	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	2.341	305.8	F
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	All-way stop	HCM 6th Edition	NB Thru	2.758	492.4	F
12	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.919	304.0	F
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	NB Left	1.196	76.5	F
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.401	10.4	B
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.502	20.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.737	24.2	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Thru	1.021	48.6	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Thru	1.054	64.3	E

19	Palm Dr (NS) at 20th Ave (EW)	Two-way stop	HCM 6th Edition	EB Thru	81.160	10,000.0	F
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	WB Thru	1.945	293.2	F
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Thru	0.813	34.6	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.683	24.4	C
23	Mountain View Rd (NS) at Varner Rd (EW)	All-way stop	HCM 6th Edition	WB Right	2.264	350.6	F
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Thru	1.272	79.7	F
101	SR-62 SB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	WB Left	71.288	10,000.0	F
102	SR-62 NB (NS) at Pierson Blvd (EW)	Two-way stop	HCM 6th Edition	EB Thru	4.925	10,000.0	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	273.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.657

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	325	4	131	191	0	0	0	0	1	0	328
Total Analysis Volume [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	25	44	0	0	60	0	0	60	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	26	26	21	47	47	56	56	56
g / C, Green / Cycle	0.00	0.23	0.23	0.18	0.41	0.41	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.00	0.36	0.01	0.29	0.21	0.00	0.00	0.00	0.82
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1870	1491	1589
c, Capacity [veh/h]	1	809	361	326	1458	651	939	781	772
d1, Uniform Delay [s]	0.00	44.42	34.68	46.98	25.53	20.05	0.00	15.26	29.57
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	278.19	0.23	288.19	1.35	0.00	0.00	0.00	319.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	1.61	0.04	1.61	0.52	0.00	0.00	0.01	1.70
d, Delay for Lane Group [s/veh]	0.00	322.61	34.91	335.17	26.88	20.06	0.00	15.27	349.53
Lane Group LOS	A	F	C	F	C	C	A	B	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	41.85	0.35	34.86	7.51	0.02	0.00	0.08	87.18
50th-Percentile Queue Length [ft/ln]	0.00	1046.31	8.75	871.50	187.75	0.39	0.00	1.89	2179.54
95th-Percentile Queue Length [veh/ln]	0.00	64.63	0.63	54.01	12.00	0.03	0.00	0.14	137.44
95th-Percentile Queue Length [ft/ln]	0.00	1615.64	15.75	1350.29	300.10	0.70	0.00	3.39	3436.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	322.61	34.91	335.17	26.88	20.06	0.00	0.00	0.00	15.27	15.27	349.53
Movement LOS	A	F	C	F	C	C	A	A	A	B	B	F
d_A, Approach Delay [s/veh]		319.11			152.10			0.00			348.01	
Approach LOS		F			F			A			F	
d_I, Intersection Delay [s/veh]	273.88											
Intersection LOS	F											
Intersection V/C	1.657											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	452	696	974	974
d_b, Bicycle Delay [s]	34.44	24.46	15.13	15.13
I_b,int, Bicycle LOS Score for Intersection	2.644	2.624	1.560	3.733
Bicycle LOS	B	B	A	D

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	344	43	7	280	1	1	2	4	78	4	67
Total Analysis Volume [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	11	0	0	18	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	34	34	3	36	36	3	3	14	14
g / C, Green / Cycle	0.02	0.48	0.48	0.04	0.51	0.51	0.04	0.04	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.39	0.11	0.02	0.31	0.00	0.01	0.01	0.18	0.17
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1842	1589	1785	1589
c, Capacity [veh/h]	29	1721	768	79	1820	813	82	71	357	318
d1, Uniform Delay [s]	34.15	15.28	10.52	32.61	12.25	8.40	32.30	32.40	27.52	27.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.02	4.00	0.68	2.72	1.57	0.01	0.89	1.60	9.45	6.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.80	0.23	0.36	0.62	0.00	0.16	0.23	0.92	0.85
d, Delay for Lane Group [s/veh]	39.16	19.29	11.20	35.33	13.82	8.41	33.19	34.00	36.96	33.20
Lane Group LOS	D	B	B	D	B	A	C	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	7.20	1.22	0.46	4.50	0.01	0.23	0.29	5.57	4.29
50th-Percentile Queue Length [ft/ln]	3.97	179.95	30.60	11.55	112.57	0.28	5.66	7.15	139.16	107.18
95th-Percentile Queue Length [veh/ln]	0.29	11.60	2.20	0.83	7.98	0.02	0.41	0.51	9.44	7.68
95th-Percentile Queue Length [ft/ln]	7.14	289.95	55.09	20.80	199.57	0.51	10.19	12.86	235.89	192.07

Movement, Approach, & Intersection Results

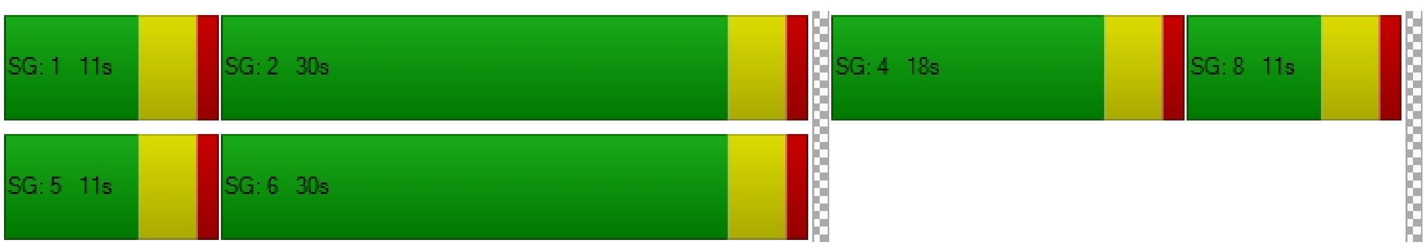
d_M, Delay for Movement [s/veh]	39.16	19.29	11.20	35.33	13.82	8.41	33.19	33.19	34.00	36.96	36.96	33.20
Movement LOS	D	B	B	D	B	A	C	C	C	D	D	C
d_A, Approach Delay [s/veh]	18.49			14.33			33.63			35.26		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	20.18											
Intersection LOS	C											
Intersection V/C	0.772											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	743	743	200	400
d_b, Bicycle Delay [s]	13.83	13.83	28.35	22.40
I_b,int, Bicycle LOS Score for Intersection	2.845	2.509	1.607	2.543
Bicycle LOS	C	B	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.668

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	258.00	103.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Base Volume Input [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	139	45	24	51	14	13	8	8	22	8	60
Total Analysis Volume [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	30	0	19	49	0	0	11	0	0	11	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No	No			No			No	
Maximum Recall		No		No	No			No			No	
Pedestrian Recall		No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	6	31	21	21	21
g / C, Green / Cycle	0.36	0.36	0.09	0.52	0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.31	0.11	0.05	0.15	0.12	0.07	0.17
s, saturation flow rate [veh/h]	1848	1589	1781	1801	899	1342	1617
c, Capacity [veh/h]	721	566	169	932	402	281	565
d1, Uniform Delay [s]	18.07	14.03	26.04	8.19	14.83	14.63	15.31
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	0.31	2.93	0.16	1.72	2.94	2.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.31	0.56	0.28	0.28	0.32	0.48
d, Delay for Lane Group [s/veh]	20.33	14.35	28.97	8.36	16.55	17.57	18.23
Lane Group LOS	C	B	C	A	B	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.10	1.40	1.25	1.29	1.14	0.95	2.76
50th-Percentile Queue Length [ft/ln]	152.45	34.98	31.29	32.15	28.55	23.74	69.02
95th-Percentile Queue Length [veh/ln]	10.15	2.52	2.25	2.31	2.06	1.71	4.97
95th-Percentile Queue Length [ft/ln]	253.70	62.96	56.32	57.87	51.40	42.73	124.24

Movement, Approach, & Intersection Results

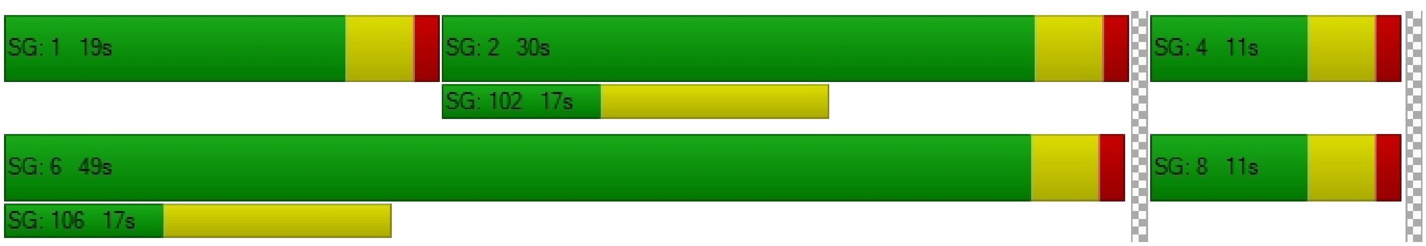
d_M, Delay for Movement [s/veh]	20.33	20.33	14.35	28.97	8.36	8.36	16.55	16.55	16.55	17.57	18.23	18.23
Movement LOS	C	C	B	C	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	18.92			13.84			16.55			18.06		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	17.42											
Intersection LOS	B											
Intersection V/C	0.668											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.832	2.378
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	1500	233	233
d_b, Bicycle Delay [s]	9.63	1.88	23.41	23.41
I_b,int, Bicycle LOS Score for Intersection	2.809	2.149	1.744	2.155
Bicycle LOS	C	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	344.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.373

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	180	62	13	80	13	22	48	18	52	93	18
Total Analysis Volume [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	915	422	422	366	402	653
Degree of Utilization, x	2.37	0.59	1.11	0.76	0.18	1.73

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	71.01	3.66	15.52	6.08	0.66	40.47
95th-Percentile Queue Length [ft]	1775.21	91.62	387.88	151.91	16.41	1011.75
Approach Delay [s/veh]	512.79		111.07	32.58		361.87
Approach LOS	F		F	D		F
Intersection Delay [s/veh]	344.14					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.676

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Base Volume Input [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	375	7	12	150	4	4	19	2	10	38	21
Total Analysis Volume [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.02	0.00	0.11	0.01	0.00	0.00	2.36	0.02	0.00	4.68	0.57
d_M, Delay for Movement [s/veh]	8.78	0.00	0.00	14.25	0.00	0.00	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Movement LOS	A	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.36	0.36	0.36	15.00	15.00	15.00	37.40	37.40	37.40
95th-Percentile Queue Length [ft/ln]	0.79	0.79	0.79	9.00	9.00	9.00	375.00	375.00	375.00	935.06	935.06	935.06
d_A, Approach Delay [s/veh]	0.06			1.01			10000.00			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1461.53											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	736.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.223

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	353	120	10	131	13	14	103	26	81	102	26
Total Analysis Volume [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1594	480	563	394	466	398	730	398
Degree of Utilization, x	4.22	1.17	1.54	0.13	1.27	0.26	2.02	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	155.91	18.58	31.41	0.43	20.73	1.02	51.37	1.02
95th-Percentile Queue Length [ft]	3897.65	464.38	785.25	10.78	518.31	25.49	1284.18	25.49
Approach Delay [s/veh]	1163.65		259.28		140.90		431.09	
Approach LOS	F		F		F		F	
Intersection Delay [s/veh]	736.52							
Intersection LOS	F							

Intersection Level Of Service Report

Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	83.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.095

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	158	488	2	2	282	29	15	0	87	124	36	70
Total Analysis Volume [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	42	61	0	11	30	0	12	28	0	20	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	38	63	63	1	26	26	6	24	24	16	34	34
g / C, Green / Cycle	0.32	0.52	0.52	0.01	0.22	0.22	0.05	0.20	0.20	0.13	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.35	0.55	0.00	0.00	0.23	0.23	0.03	0.00	0.22	0.14	0.12	0.13
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1783	1781	1870	1589	3459	1767	1589
c, Capacity [veh/h]	564	1864	832	19	776	389	90	372	316	461	498	448
d1, Uniform Delay [s]	41.01	28.58	13.68	58.92	46.93	46.93	55.97	38.54	48.08	52.00	35.24	35.66
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.36	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	75.14	34.01	0.02	8.88	51.11	64.37	7.92	0.00	72.16	43.94	0.59	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.12	1.05	0.01	0.31	1.07	1.07	0.66	0.00	1.10	1.08	0.43	0.47
d, Delay for Lane Group [s/veh]	116.15	62.59	13.69	67.79	98.04	111.30	63.89	38.55	120.24	95.94	35.83	36.43
Lane Group LOS	F	F	B	E	F	F	E	D	F	F	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	27.24	32.04	0.09	0.22	16.46	17.91	1.95	0.02	15.72	9.74	5.23	5.19
50th-Percentile Queue Length [ft/ln]	680.95	800.98	2.19	5.55	411.48	447.81	48.83	0.60	393.01	243.51	130.74	129.67
95th-Percentile Queue Length [veh/ln]	38.47	42.85	0.16	0.40	23.93	25.76	3.52	0.04	23.34	15.34	8.98	8.92
95th-Percentile Queue Length [ft/ln]	961.80	1071.36	3.95	9.98	598.37	644.04	87.90	1.08	583.40	383.54	224.49	223.05

Movement, Approach, & Intersection Results

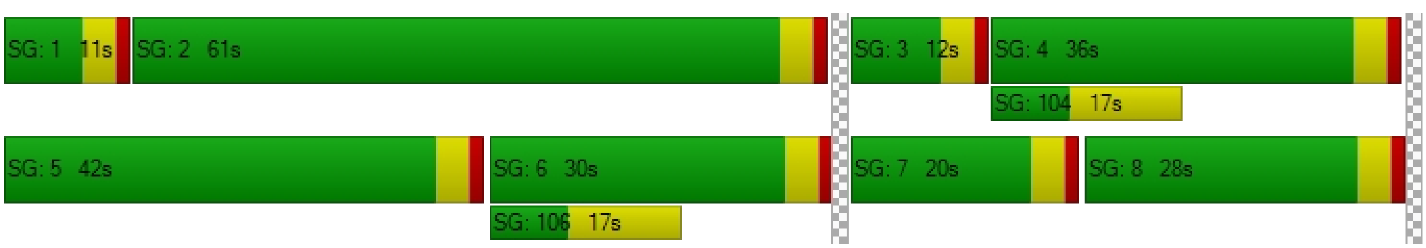
d_M, Delay for Movement [s/veh]	116.15	62.59	13.69	67.79	101.57	111.30	63.89	38.55	120.24	95.94	35.83	36.28
Movement LOS	F	F	B	E	F	F	E	D	F	F	D	D
d_A, Approach Delay [s/veh]		75.52			102.30			111.87			68.37	
Approach LOS		E			F			F			E	
d_I, Intersection Delay [s/veh]	83.57											
Intersection LOS	F											
Intersection V/C	1.095											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	49.50	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.520	2.461	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	950	433	400	533
d_b, Bicycle Delay [s]	16.54	36.82	38.40	32.27
I_b,int, Bicycle LOS Score for Intersection	3.695	2.245	2.231	3.081
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.872

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	29	100	3	18	3	6	24	21	53	31	6
Total Analysis Volume [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	507	591	432	459	502	424	450	494	445	474	522
Degree of Utilization, x	0.48	0.87	0.03	0.16	0.02	0.06	0.22	0.17	0.48	0.26	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.58	9.97	0.09	0.56	0.07	0.19	0.81	0.62	2.52	1.02	0.14
95th-Percentile Queue Length [ft]	64.50	249.29	2.14	14.04	1.84	4.69	20.23	15.42	62.97	25.43	3.61
Approach Delay [s/veh]	30.17		11.69			12.18			15.71		
Approach LOS	D		B			B			C		
Intersection Delay [s/veh]	22.65										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	305.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.341

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			┥┏			┥┏		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	179	26	37	86	14	17	47	9	16	80	70
Total Analysis Volume [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	972	547	369	404	394	430
Degree of Utilization, x	2.34	1.32	0.69	0.09	0.97	0.65

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	74.49	24.88	5.00	0.29	11.26	4.48
95th-Percentile Queue Length [ft]	1862.36	621.93	124.91	7.29	281.38	111.88
Approach Delay [s/veh]	629.94	186.01	29.31		50.32	
Approach LOS	F	F	D		F	
Intersection Delay [s/veh]	305.77					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	All-way stop	Delay (sec / veh):	492.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.758

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	202	98	13	79	6	6	25	25	49	10	27
Total Analysis Volume [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1390	481	443	412	472
Degree of Utilization, x	2.76	0.80	0.50	0.57	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	115.27	7.47	2.76	3.46	0.87
95th-Percentile Queue Length [ft]	2881.71	186.67	69.10	86.39	21.87
Approach Delay [s/veh]	812.20	34.36	19.08	19.37	
Approach LOS	F	D	C	C	
Intersection Delay [s/veh]	492.36				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	304.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.919

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	80	39	43	39	59	116	121	24	24	102	82
Total Analysis Volume [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	642	562	464	579	353	736
Degree of Utilization, x	1.69	1.46	1.31	1.54	0.27	1.92

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	38.92	29.42	21.71	32.02	1.10	49.62
95th-Percentile Queue Length [ft]	973.03	735.38	542.85	800.61	27.47	1240.60
Approach Delay [s/veh]	344.20	247.26	237.35		394.65	
Approach LOS	F	F	F		F	
Intersection Delay [s/veh]	303.97					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	76.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.196

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┼			┼			┼			┼		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	77	15	2	41	10	8	1	21	40	10	8
Total Analysis Volume [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	766	587	545	540
Degree of Utilization, x	1.20	0.36	0.22	0.43

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	26.52	1.63	0.84	2.14
95th-Percentile Queue Length [ft]	662.96	40.74	21.06	53.60
Approach Delay [s/veh]	123.19	12.55	11.48	14.61
Approach LOS	F	B	B	B
Intersection Delay [s/veh]	76.53			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	5	14	0	2	1	1	9	41	10	8	0
Total Analysis Volume [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	613	670	771	589	673	631	723	581	691
Degree of Utilization, x	0.40	0.03	0.07	0.01	0.01	0.06	0.23	0.12	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.93	0.09	0.24	0.04	0.02	0.19	0.88	0.40	0.00
95th-Percentile Queue Length [ft]	48.28	2.19	5.97	1.03	0.45	4.80	21.93	10.04	0.11
Approach Delay [s/veh]	11.38			8.63		9.08		9.70	
Approach LOS	B			A		A		A	
Intersection Delay [s/veh]	10.36								
Intersection LOS	B								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.502

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐ǁ├			┐ǁ├			┐ǁ├			┐ǁ├		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	150	17	7	92	17	15	29	44	19	39	11
Total Analysis Volume [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	32	32	3	26	26	5	10	10	5	10	10
g / C, Green / Cycle	0.12	0.49	0.49	0.04	0.40	0.40	0.07	0.15	0.15	0.08	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.18	0.01	0.12	0.12	0.03	0.06	0.11	0.04	0.05	0.06
s, saturation flow rate [veh/h]	1781	1870	1806	1781	1870	1773	1781	1870	1589	1781	1870	1733
c, Capacity [veh/h]	221	904	873	76	752	713	132	274	233	146	289	268
d1, Uniform Delay [s]	27.99	10.64	10.64	30.35	13.23	13.25	28.97	25.33	26.75	28.71	24.68	24.74
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.70	1.19	1.23	2.63	1.00	1.07	2.50	1.02	5.04	2.77	0.74	0.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.38	0.38	0.34	0.29	0.30	0.46	0.42	0.76	0.51	0.35	0.37
d, Delay for Lane Group [s/veh]	36.70	11.83	11.87	32.98	14.22	14.32	31.47	26.35	31.78	31.48	25.42	25.58
Lane Group LOS	D	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.20	2.87	2.78	0.43	2.14	2.07	0.95	1.59	2.78	1.17	1.38	1.34
50th-Percentile Queue Length [ft/ln]	79.93	71.64	69.48	10.78	53.47	51.83	23.86	39.76	69.61	29.27	34.52	33.46
95th-Percentile Queue Length [veh/ln]	5.75	5.16	5.00	0.78	3.85	3.73	1.72	2.86	5.01	2.11	2.49	2.41
95th-Percentile Queue Length [ft/ln]	143.87	128.95	125.07	19.40	96.24	93.30	42.95	71.56	125.30	52.69	62.13	60.23

Movement, Approach, & Intersection Results

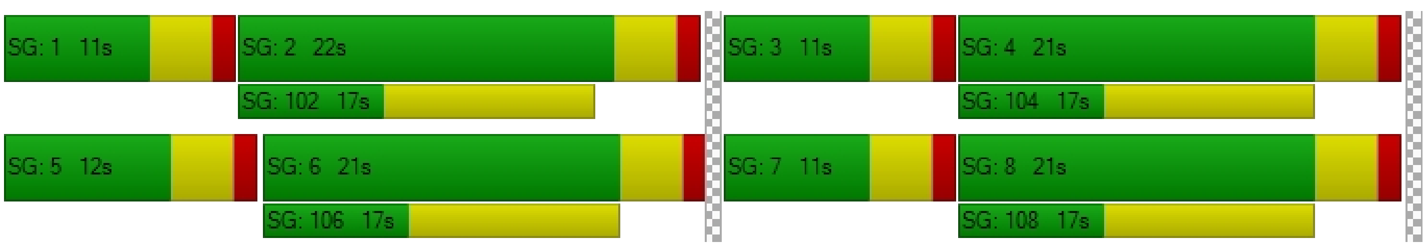
d_M, Delay for Movement [s/veh]	36.70	11.85	11.87	32.98	14.26	14.32	31.47	26.35	31.78	31.48	25.48	25.58
Movement LOS	D	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.29			15.33			29.96			27.13		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.52											
Intersection LOS	C											
Intersection V/C	0.502											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.617	2.547	2.455	2.392
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.264	1.940	1.851	1.787
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.737

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	242	21	45	149	12	12	35	21	47	54	31
Total Analysis Volume [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	27	27	7	28	28	4	7	7	8	11	11
g / C, Green / Cycle	0.10	0.42	0.42	0.11	0.43	0.43	0.06	0.11	0.11	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.07	0.28	0.28	0.10	0.17	0.17	0.03	0.06	0.07	0.11	0.11	0.08
s, saturation flow rate [veh/h]	1781	1870	1819	1781	1870	1820	1781	1870	1646	1781	1870	1589
c, Capacity [veh/h]	172	777	756	193	800	779	117	199	176	221	308	262
d1, Uniform Delay [s]	28.52	15.57	15.58	28.81	12.94	12.94	29.30	27.77	27.89	27.99	25.70	24.67
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.69	4.85	5.00	16.03	1.54	1.58	2.38	2.68	3.55	8.70	2.80	1.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.68	0.68	0.92	0.41	0.41	0.42	0.58	0.62	0.85	0.69	0.47
d, Delay for Lane Group [s/veh]	33.21	20.42	20.58	44.85	14.48	14.52	31.68	30.45	31.44	36.70	28.50	25.97
Lane Group LOS	C	C	C	D	B	B	C	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.88	6.58	6.44	3.44	3.20	3.12	0.75	1.71	1.64	3.15	3.08	1.66
50th-Percentile Queue Length [ft/ln]	47.08	164.61	161.12	85.94	79.89	78.06	18.76	42.71	41.08	78.74	77.09	41.59
95th-Percentile Queue Length [veh/ln]	3.39	10.79	10.61	6.19	5.75	5.62	1.35	3.08	2.96	5.67	5.55	2.99
95th-Percentile Queue Length [ft/ln]	84.75	269.82	265.20	154.70	143.80	140.51	33.78	76.88	73.94	141.74	138.75	74.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.21	20.49	20.58	44.85	14.50	14.52	31.68	30.62	31.44	36.70	28.50	25.97
Movement LOS	C	C	C	D	B	B	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	21.77			21.07			31.06			30.83		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	24.18											
Intersection LOS	C											
Intersection V/C	0.737											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.820	2.728	2.352	2.522
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.522	2.238	1.786	2.424
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	48.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.021

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	278	82	52	181	6	28	97	63	87	58	35
Total Analysis Volume [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	30	0	14	26	0	15	21	0	20	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	26	26	10	24	24	7	17	17	16	26	26
g / C, Green / Cycle	0.15	0.31	0.31	0.12	0.28	0.28	0.08	0.20	0.20	0.19	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.13	0.31	0.21	0.12	0.20	0.02	0.06	0.21	0.16	0.19	0.12	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	261	1094	489	210	992	443	141	371	315	335	575	489
d1, Uniform Delay [s]	35.42	29.45	25.69	37.47	27.75	22.46	38.44	34.09	32.45	34.52	23.28	22.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15	0.11	0.12	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.86	30.81	7.12	26.88	4.66	0.23	9.06	36.38	4.58	32.73	0.46	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	1.01	0.67	0.99	0.73	0.05	0.78	1.04	0.80	1.03	0.40	0.28
d, Delay for Lane Group [s/veh]	43.28	60.27	32.80	64.36	32.41	22.69	47.51	70.46	37.03	67.25	23.74	22.63
Lane Group LOS	D	F	C	E	C	C	D	F	D	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.86	14.98	6.33	5.74	6.95	0.37	2.51	10.96	5.04	9.68	3.59	2.04
50th-Percentile Queue Length [ft/ln]	121.48	374.54	158.33	143.54	173.84	9.21	62.84	274.00	126.10	242.09	89.80	51.00
95th-Percentile Queue Length [veh/ln]	8.47	21.52	10.46	9.67	11.28	0.66	4.52	16.73	8.73	15.02	6.47	3.67
95th-Percentile Queue Length [ft/ln]	211.85	538.07	261.51	241.78	281.96	16.57	113.11	418.15	218.19	375.50	161.63	91.81

Movement, Approach, & Intersection Results

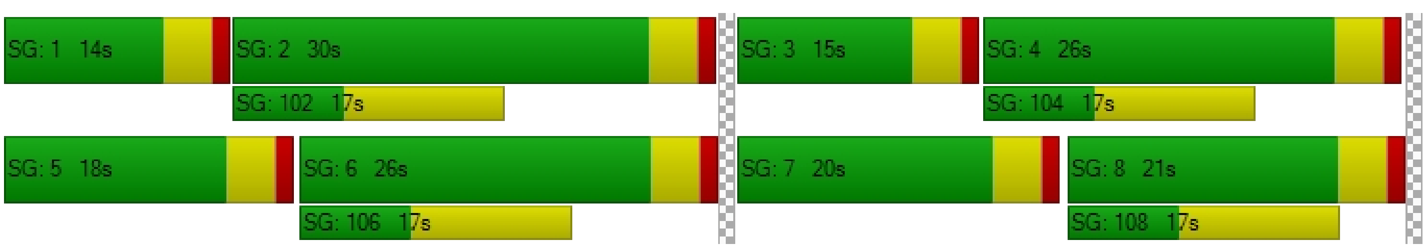
d_M, Delay for Movement [s/veh]	43.28	60.27	32.80	64.36	32.41	22.69	47.51	70.46	37.03	67.25	23.74	22.63
Movement LOS	D	F	C	E	C	C	D	F	D	F	C	C
d_A, Approach Delay [s/veh]	52.58			39.13			55.85			44.52		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	48.61											
Intersection LOS	D											
Intersection V/C	1.021											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.144	2.888	2.615	2.593
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	612	518	400	518
d_b, Bicycle Delay [s]	20.48	23.35	27.20	23.35
I_b,int, Bicycle LOS Score for Intersection	2.929	2.347	2.792	2.743
Bicycle LOS	C	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	64.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.054

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	110	408	124	33	194	46	49	105	49	61	97	48
Total Analysis Volume [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	31	48	0	12	29	0	17	27	0	18	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	44	44	8	25	25	13	23	23	14	24	24
g / C, Green / Cycle	0.26	0.42	0.42	0.08	0.24	0.24	0.12	0.22	0.22	0.13	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.25	0.46	0.31	0.07	0.22	0.12	0.11	0.22	0.12	0.14	0.21	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	458	1498	669	136	854	381	221	406	345	238	424	360
d1, Uniform Delay [s]	38.49	30.43	25.65	48.42	38.77	34.29	45.29	41.11	36.65	45.51	39.59	35.69
k, delay calibration	0.35	0.50	0.50	0.11	0.50	0.50	0.11	0.29	0.11	0.11	0.25	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	26.90	52.04	7.34	30.83	15.02	4.28	11.40	43.25	1.43	31.81	15.74	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.96	1.09	0.74	0.98	0.91	0.48	0.89	1.03	0.56	1.02	0.91	0.53
d, Delay for Lane Group [s/veh]	65.39	82.47	32.98	79.25	53.79	38.57	56.69	84.36	38.08	77.31	55.34	36.90
Lane Group LOS	E	F	C	E	D	D	E	F	D	F	E	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	13.60	27.20	10.53	4.46	10.77	4.21	5.44	14.63	4.29	7.93	10.89	4.14
50th-Percentile Queue Length [ft/ln]	340.05	680.05	263.15	111.50	269.26	105.31	136.05	365.81	107.23	198.25	272.19	103.49
95th-Percentile Queue Length [veh/ln]	19.65	38.04	15.85	7.92	16.15	7.58	9.27	21.30	7.69	12.65	16.30	7.45
95th-Percentile Queue Length [ft/ln]	491.26	951.00	396.17	198.09	403.81	189.45	231.69	532.43	192.14	316.18	407.48	186.28

Movement, Approach, & Intersection Results

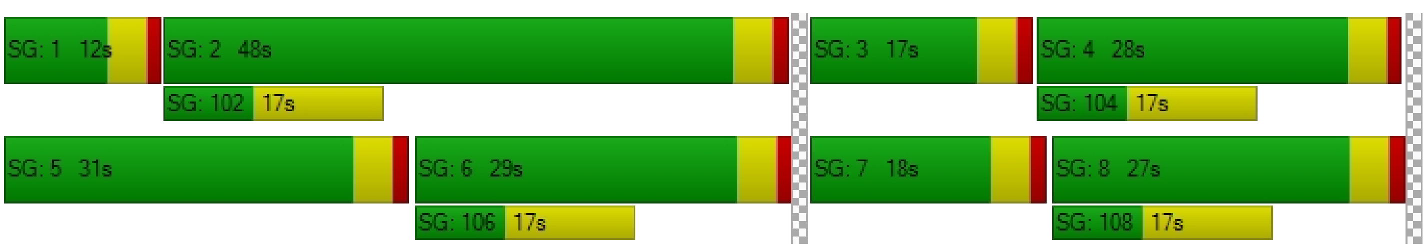
d_M, Delay for Movement [s/veh]	65.39	82.47	32.98	79.25	53.79	38.57	56.69	84.36	38.08	77.31	55.34	36.90
Movement LOS	E	F	C	E	D	D	E	F	D	F	E	D
d_A, Approach Delay [s/veh]	69.98			54.34			66.58			57.53		
Approach LOS	E			D			E			E		
d_I, Intersection Delay [s/veh]	64.31											
Intersection LOS	E											
Intersection V/C	1.054											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	3.654	3.395	2.952	2.974
Crosswalk LOS	D	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	838	476	438	457
d_b, Bicycle Delay [s]	17.72	30.48	32.02	31.24
I_b,int, Bicycle LOS Score for Intersection	3.680	2.459	2.896	2.913
Bicycle LOS	D	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	81.160

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	675	101	10	283	19	8	12	5	34	16	10
Total Analysis Volume [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.03	0.00	0.39	0.01	0.00	0.00	81.16	0.04	0.00	65.10	0.29
d_M, Delay for Movement [s/veh]	12.77	0.00	0.00	60.72	0.00	0.00	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Movement LOS	B	A	A	F	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.71	0.00	0.00	1.59	0.00	0.00	14.87	14.87	14.87	33.00	33.00	33.00
95th-Percentile Queue Length [ft/ln]	17.77	0.00	0.00	39.71	0.00	0.00	371.79	371.79	371.79	825.00	825.00	825.00
d_A, Approach Delay [s/veh]	0.44			1.95			10000.00			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	711.22											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	293.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.945

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	743	35	24	286	29	28	59	16	53	139	75
Total Analysis Volume [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	64	0	11	62	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	60	60	7	59	59	41	41
g / C, Green / Cycle	0.07	0.50	0.50	0.06	0.49	0.49	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.06	0.83	0.09	0.05	0.32	0.07	0.39	0.86
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1042	1234
c, Capacity [veh/h]	123	1778	794	107	1745	779	393	457
d1, Uniform Delay [s]	54.97	30.01	16.49	55.92	22.95	16.82	40.20	41.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.13	304.35	0.49	19.80	1.94	0.41	56.19	607.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	1.67	0.18	0.88	0.66	0.15	1.04	2.34
d, Delay for Lane Group [s/veh]	66.11	334.36	16.98	75.72	24.89	17.22	96.39	648.69
Lane Group LOS	E	F	B	E	C	B	F	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.16	97.19	2.03	3.28	11.20	1.70	17.43	90.04
50th-Percentile Queue Length [ft/ln]	78.93	2429.68	50.74	81.89	280.08	42.42	435.80	2251.06
95th-Percentile Queue Length [veh/ln]	5.68	151.93	3.65	5.90	16.69	3.05	24.92	145.31
95th-Percentile Queue Length [ft/ln]	142.07	3798.15	91.33	147.39	417.31	76.35	622.92	3632.84

Movement, Approach, & Intersection Results

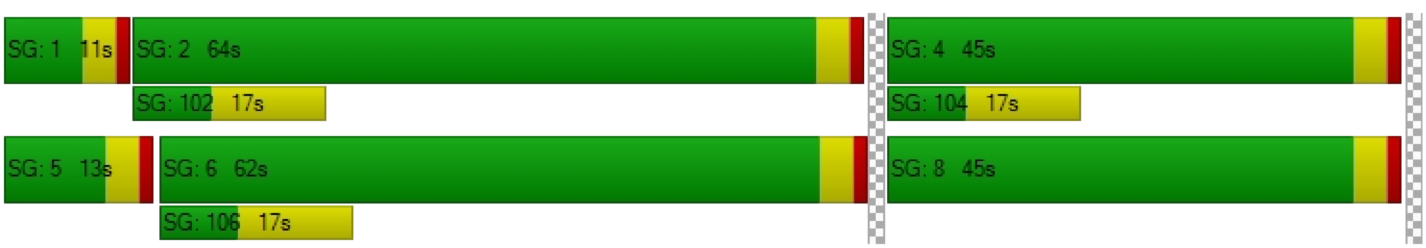
d_M, Delay for Movement [s/veh]	66.11	334.36	16.98	75.72	24.89	17.22	96.39	96.39	96.39	648.69	648.69	648.69
Movement LOS	E	F	B	E	C	B	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	312.22			27.75			96.39			648.69		
Approach LOS	F			C			F			F		
d_I, Intersection Delay [s/veh]	293.17											
Intersection LOS	F											
Intersection V/C	1.945											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	49.50	49.50
I_p,int, Pedestrian LOS Score for Intersection	0.000	4.083	2.781	3.101
Crosswalk LOS	F	D	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	967	683	683
d_b, Bicycle Delay [s]	15.00	16.02	26.00	26.00
I_b,int, Bicycle LOS Score for Intersection	4.207	2.677	2.234	3.319
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.813

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach		Northbound			Southbound			Eastbound			Westbound	
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]		25.00			35.00			40.00			40.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		No			No			No			No	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	64	17	35	24	10	6	66	33	14	84	75
Total Analysis Volume [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	13	21	0	13	21	0	11	30	0	11	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	20	7	18	18	3	27	5	29
g / C, Green / Cycle	0.12	0.26	0.10	0.24	0.24	0.04	0.36	0.06	0.39
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.08	0.05	0.02	0.01	0.22	0.03	0.37
s, saturation flow rate [veh/h]	1781	1802	1781	1870	1589	1781	1765	1781	1726
c, Capacity [veh/h]	214	475	173	451	383	68	640	113	669
d1, Uniform Delay [s]	32.27	24.78	33.13	22.75	22.13	35.20	19.66	33.95	22.28
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.13	0.11	0.39
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.16	7.68	8.07	1.05	0.52	3.32	1.16	3.15	20.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.68	0.80	0.21	0.10	0.37	0.62	0.48	0.95
d, Delay for Lane Group [s/veh]	40.43	32.47	41.20	23.80	22.65	38.52	20.82	37.10	43.13
Lane Group LOS	D	C	D	C	C	D	C	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.59	6.03	2.74	1.39	0.55	0.49	5.28	1.00	13.36
50th-Percentile Queue Length [ft/ln]	89.63	150.66	68.42	34.73	13.74	12.15	132.01	24.99	333.89
95th-Percentile Queue Length [veh/ln]	6.45	10.05	4.93	2.50	0.99	0.87	9.05	1.80	19.35
95th-Percentile Queue Length [ft/ln]	161.33	251.31	123.16	62.52	24.74	21.87	226.22	44.98	483.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.43	32.47	32.47	41.20	23.80	22.65	38.52	20.82	20.82	37.10	43.13	43.13
Movement LOS	D	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	35.29			32.53			21.87			42.66		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	34.60											
Intersection LOS	C											
Intersection V/C	0.813											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	27.31	27.31	27.31	27.31
I_p,int, Pedestrian LOS Score for Intersection	2.142	2.363	2.437	2.433
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	453	453	693	693
d_b, Bicycle Delay [s]	22.43	22.43	16.01	16.01
I_b,int, Bicycle LOS Score for Intersection	2.388	2.005	2.254	2.698
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.683

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	72	58	6	41	14	22	51	16	24	40	3
Total Analysis Volume [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	29	2	25	6	12	6	12
g / C, Green / Cycle	0.10	0.45	0.04	0.39	0.09	0.18	0.09	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.30	0.01	0.12	0.05	0.15	0.05	0.09
s, saturation flow rate [veh/h]	1781	1733	1781	1790	1781	1794	1781	1845
c, Capacity [veh/h]	177	772	67	687	155	325	162	341
d1, Uniform Delay [s]	28.56	14.31	30.61	14.14	28.59	25.76	28.53	23.89
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.82	4.59	2.81	1.24	3.09	5.42	3.52	1.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.67	0.33	0.32	0.56	0.83	0.60	0.50
d, Delay for Lane Group [s/veh]	34.39	18.90	33.41	15.38	31.68	31.17	32.04	25.03
Lane Group LOS	C	B	C	B	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.01	5.39	0.35	2.03	1.26	3.91	1.43	2.13
50th-Percentile Queue Length [ft/ln]	50.25	134.69	8.78	50.64	31.60	97.73	35.87	53.29
95th-Percentile Queue Length [veh/ln]	3.62	9.19	0.63	3.65	2.28	7.04	2.58	3.84
95th-Percentile Queue Length [ft/ln]	90.44	229.86	15.80	91.15	56.88	175.92	64.57	95.91

Movement, Approach, & Intersection Results

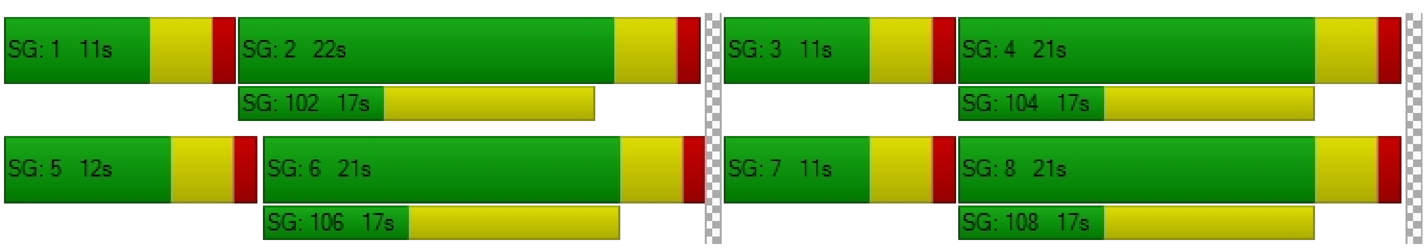
d_M, Delay for Movement [s/veh]	34.39	18.90	18.90	33.41	15.38	15.38	31.68	31.17	31.17	32.04	25.03	25.03
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	22.01			17.02			31.30			27.57		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	24.37											
Intersection LOS	C											
Intersection V/C	0.683											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.503	2.296	2.339	2.354
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.627	1.961	2.145	2.002
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	350.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.264

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	426	171	162	434	799	1178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	426	171	162	434	799	1178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	43	41	109	200	295
Total Analysis Volume [veh/h]	426	171	162	434	799	1178
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	597	596	799	1178
Degree of Utilization, x	1.16	1.19	1.69	2.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	20.93	21.94	47.15	87.27
95th-Percentile Queue Length [ft]	523.37	548.61	1178.79	2181.74
Approach Delay [s/veh]	115.96	127.25	488.75	
Approach LOS	F	F	F	
Intersection Delay [s/veh]	350.58			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	79.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.272

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	10	46	32	5	6	9	139	10	15	85	22
Total Analysis Volume [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	478	425	436	595	438	476
Degree of Utilization, x	0.66	0.41	0.08	1.27	0.14	0.90

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.72	1.98	0.25	24.86	0.48	10.01
95th-Percentile Queue Length [ft]	117.90	49.51	6.31	621.50	11.99	250.26
Approach Delay [s/veh]	23.96	17.31	153.59		42.92	
Approach LOS	C	C	F		E	
Intersection Delay [s/veh]	79.71					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	71.288

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	0	0	0	20	754	0	0	320	266	161	770	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	20	754	0	0	320	266	161	770	0
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	1.0000	1.0000	1.0000	1.0000	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	5	189	0	0	80	67	40	193	0
Total Analysis Volume [veh/h]	0	0	0	20	754	0	0	320	266	161	770	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00	0.00	1.00	0.65	71.29	2.40	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	331.74	329.31	10000.0	10000.0	0.00
Movement LOS				A	A	A		F	F	F	F	
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.07	35.07	117.76	117.76	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	876.84	876.84	2944.01	2944.01	0.00
d_A, Approach Delay [s/veh]	0.00			0.00			330.63			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	4148.30											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 102: SR-62 NB (NS) at Pierson Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.925

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	40.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			30.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	303	1256	99	0	0	0	0	311	0	0	527	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	303	1256	99	0	0	0	0	311	0	0	527	84
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	314	25	0	0	0	0	78	0	0	132	21
Total Analysis Volume [veh/h]	303	1256	99	0	0	0	0	311	0	0	527	84
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00	0.00	4.93	0.00	0.00	7.24	0.40
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	10000.0	0.00	0.00	3093.66	3061.43
Movement LOS	A	A	A				F	F			F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	41.67	41.67	0.00	0.00	69.67	69.67
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	1041.84	1041.84	0.00	0.00	1741.70	1741.70
d_A, Approach Delay [s/veh]	0.00			0.00			10000.00			3089.23		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1937.02											
Intersection LOS	F											

Desert Hot Springs General Plan Update

Vistro File: G:\...\PGP AM.vistro
Scenario 2 Proposed General Plan With Improvements
Report File: G:\...\Proposed GP AM IMP.pdf
6/4/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	EB Thru	0.615	16.9	B
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.941	46.3	D
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.480	15.2	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.842	23.1	C
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Signalized	HCM 6th Edition	EB Thru	0.840	14.0	B
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.747	31.5	C
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	0.850	44.0	D
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	WB Left	0.774	18.0	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.681	16.2	B
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	Signalized	HCM 6th Edition	WB Left	0.781	18.7	B
12	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.787	33.7	C
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	SB Thru	0.689	15.9	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.424	11.4	B
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.559	23.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.512	19.4	B
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	WB Left	1.022	51.1	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.869	42.5	D

19	Palm Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.811	14.7	B
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	EB Thru	0.956	54.8	D
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.619	26.6	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.921	46.5	D
23	Mountain View Rd (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	EB Thru	0.988	46.2	D
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.785	17.0	C
101	SR-62 SB (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.850	22.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	4	244	350	0	0	0	0	0	0	76
Total Analysis Volume [veh/h]	0	433	14	976	1400	0	0	1	0	0	0	303
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	30	30	0	0	12	0	0	12	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	20	20	21	41	41	0	8	8
g / C, Green / Cycle	0.00	0.30	0.30	0.33	0.63	0.63	0.00	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.00	0.09	0.01	0.28	0.39	0.00	0.00	0.00	0.11
s, saturation flow rate [veh/h]	1781	5094	1589	3459	3560	1589	1870	1870	2813
c, Capacity [veh/h]	2	1531	478	1133	2233	997	5	231	347
d1, Uniform Delay [s]	0.00	17.41	16.07	20.52	7.46	0.00	32.40	0.00	28.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.46	0.11	2.07	1.34	0.00	16.31	0.00	6.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.28	0.03	0.86	0.63	0.00	0.19	0.00	0.87
d, Delay for Lane Group [s/veh]	0.00	17.88	16.19	22.59	8.81	0.00	48.72	0.00	34.87
Lane Group LOS	A	B	B	C	A	A	D	A	C
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.35	0.13	5.86	3.54	0.00	0.04	0.00	2.34
50th-Percentile Queue Length [ft/ln]	0.00	33.76	3.25	146.61	88.38	0.00	0.98	0.00	58.44
95th-Percentile Queue Length [veh/ln]	0.00	2.43	0.23	9.84	6.36	0.00	0.07	0.00	4.21
95th-Percentile Queue Length [ft/ln]	0.00	60.77	5.86	245.89	159.08	0.00	1.76	0.00	105.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	17.88	16.19	22.59	8.81	0.00	48.72	48.72	48.72	0.00	0.00	34.87
Movement LOS	A	B	B	C	A	A	D	D	D	A	A	C
d_A, Approach Delay [s/veh]		17.82			14.47			48.72			34.87	
Approach LOS		B			B			D			C	
d_I, Intersection Delay [s/veh]	16.94											
Intersection LOS	B											
Intersection V/C	0.615											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	215	800	246	246
d_b, Bicycle Delay [s]	25.88	11.70	24.99	24.99
I_b,int, Bicycle LOS Score for Intersection	1.805	3.520	1.561	2.060
Bicycle LOS	A	D	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	46.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.941

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	128	32	25	498	1	1	6	4	101	5	10
Total Analysis Volume [veh/h]	10	510	126	100	1991	4	2	23	15	403	21	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	11	0	59	59	0	0	11	0	0	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	60	60	9	66	66	5	5	30	30
g / C, Green / Cycle	0.02	0.50	0.50	0.07	0.55	0.55	0.04	0.04	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.08	0.06	0.56	0.00	0.01	0.01	0.24	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1863	1589	1785	1589
c, Capacity [veh/h]	30	1773	791	127	1966	878	81	69	454	404
d1, Uniform Delay [s]	58.32	17.66	16.44	54.84	26.88	12.07	55.67	55.44	43.79	34.20
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.32	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.19	0.41	0.43	10.25	23.51	0.01	2.14	1.56	21.12	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.29	0.16	0.79	1.01	0.00	0.31	0.22	0.93	0.09
d, Delay for Lane Group [s/veh]	64.51	18.07	16.87	65.09	50.39	12.08	57.81	57.00	64.90	34.30
Lane Group LOS	E	B	B	E	F	B	E	E	E	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.34	3.75	1.77	3.17	29.32	0.04	0.78	0.47	14.25	0.82
50th-Percentile Queue Length [ft/ln]	8.42	93.66	44.27	79.20	733.07	1.10	19.58	11.73	356.34	20.57
95th-Percentile Queue Length [veh/ln]	0.61	6.74	3.19	5.70	38.62	0.08	1.41	0.84	20.45	1.48
95th-Percentile Queue Length [ft/ln]	15.15	168.59	79.69	142.56	965.38	1.99	35.25	21.12	511.13	37.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.51	18.07	16.87	65.09	50.39	12.08	57.81	57.81	57.00	64.90	64.90	34.30
Movement LOS	E	B	B	E	F	B	E	E	E	E	E	C
d_A, Approach Delay [s/veh]	18.56			51.02			57.51			62.38		
Approach LOS	B			D			E			E		
d_I, Intersection Delay [s/veh]	46.25											
Intersection LOS	D											
Intersection V/C	0.941											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	917	117	583
d_b, Bicycle Delay [s]	53.20	17.60	53.20	30.10
I_b,int, Bicycle LOS Score for Intersection	2.093	3.288	1.626	2.322
Bicycle LOS	B	C	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	258.00	103.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Base Volume Input [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	33	17	24	98	10	4	4	5	51	3	18
Total Analysis Volume [veh/h]	16	131	69	97	391	41	16	14	19	205	13	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	17	40	0	0	20	0	0	20	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No	No			No			No	
Maximum Recall		No		No	No			No			No	
Pedestrian Recall		No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	6	25	27	27	27
g / C, Green / Cycle	0.26	0.26	0.09	0.42	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.11	0.04	0.05	0.23	0.03	0.15	0.05
s, saturation flow rate [veh/h]	1312	1589	1781	1839	1580	1376	1626
c, Capacity [veh/h]	411	418	170	781	778	665	719
d1, Uniform Delay [s]	17.92	17.09	26.03	13.01	9.63	11.07	9.88
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	0.18	2.99	0.61	0.16	1.20	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.17	0.57	0.55	0.06	0.31	0.12
d, Delay for Lane Group [s/veh]	18.45	17.27	29.02	13.62	9.78	12.27	10.22
Lane Group LOS	B	B	C	B	A	B	B
Critical Lane Group	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.38	0.62	1.28	3.30	0.36	1.55	0.57
50th-Percentile Queue Length [ft/ln]	34.59	15.49	31.97	82.47	8.91	38.84	14.16
95th-Percentile Queue Length [veh/ln]	2.49	1.12	2.30	5.94	0.64	2.80	1.02
95th-Percentile Queue Length [ft/ln]	62.26	27.89	57.55	148.45	16.03	69.91	25.49

Movement, Approach, & Intersection Results

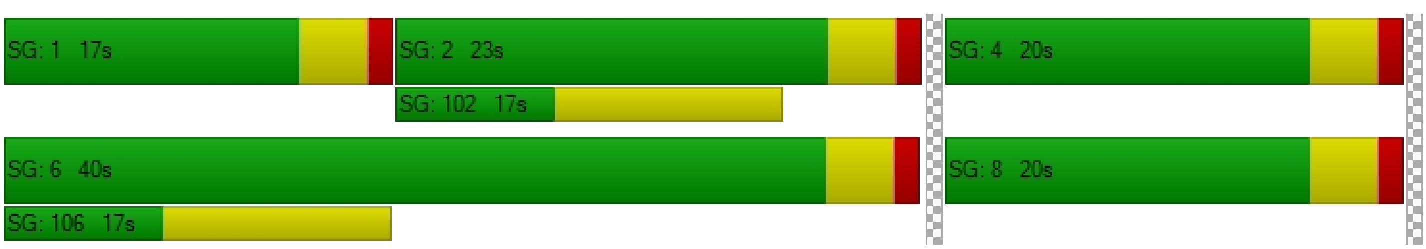
d_M, Delay for Movement [s/veh]	18.45	18.45	17.27	29.02	13.62	13.62	9.78	9.78	9.78	12.27	10.22	10.22
Movement LOS	B	B	B	C	B	B	A	A	A	B	B	B
d_A, Approach Delay [s/veh]	18.07			16.44			9.78			11.66		
Approach LOS	B			B			A			B		
d_I, Intersection Delay [s/veh]	15.19											
Intersection LOS	B											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.773	2.300
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	1200	533	533
d_b, Bicycle Delay [s]	14.01	4.80	16.13	16.13
I_b,int, Bicycle LOS Score for Intersection	1.916	2.432	1.640	2.040
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	23.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	56	50	17	144	30	11	63	48	84	54	4
Total Analysis Volume [veh/h]	93	222	199	68	574	120	43	253	190	337	217	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	35	0	0	35	0	0	30	0	0	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	26	26	26	26
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.12	0.12	0.13	0.43	0.15	0.15	0.36	0.13
s, saturation flow rate [veh/h]	750	1870	1589	1756	1757	1479	946	1846
c, Capacity [veh/h]	142	890	756	896	770	594	365	741
d1, Uniform Delay [s]	21.95	10.15	10.23	15.62	13.58	13.73	25.97	13.36
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.28	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	20.99	0.67	0.85	9.98	0.26	0.39	21.16	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.25	0.26	0.85	0.34	0.38	0.92	0.32
d, Delay for Lane Group [s/veh]	42.94	10.82	11.07	25.59	13.84	14.12	47.13	13.60
Lane Group LOS	D	B	B	C	B	B	D	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.10	1.54	1.42	9.71	2.14	1.85	6.95	1.94
50th-Percentile Queue Length [ft/ln]	52.42	38.41	35.40	242.66	53.59	46.22	173.84	48.38
95th-Percentile Queue Length [veh/ln]	3.77	2.77	2.55	14.82	3.86	3.33	11.28	3.48
95th-Percentile Queue Length [ft/ln]	94.35	69.14	63.71	370.39	96.46	83.19	281.95	87.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.94	10.82	11.07	25.59	25.59	25.59	13.84	13.88	14.12	47.13	13.60	13.60
Movement LOS	D	B	B	C	C	C	B	B	B	D	B	B
d_A, Approach Delay [s/veh]	16.73			25.59			13.97			33.39		
Approach LOS	B			C			B			C		
d_I, Intersection Delay [s/veh]	23.13											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	954	954	800	800
d_b, Bicycle Delay [s]	8.89	8.89	11.70	11.70
I_b,int, Bicycle LOS Score for Intersection	2.408	2.817	1.961	2.502
Bicycle LOS	B	C	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Base Volume Input [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	129	6	8	334	2	6	27	5	9	14	10
Total Analysis Volume [veh/h]	7	515	23	31	1335	9	24	106	20	35	54	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	83	0	0	83	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C
C, Cycle Length [s]	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	79	79	79	8	8
g / C, Green / Cycle	0.83	0.83	0.83	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.30	0.04	0.72	0.08	0.08
s, saturation flow rate [veh/h]	1833	867	1868	1766	1621
c, Capacity [veh/h]	1561	258	1551	194	186
d1, Uniform Delay [s]	1.93	2.91	4.86	43.36	43.10
k, delay calibration	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.62	0.95	6.76	6.36	4.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.12	0.87	0.77	0.70
d, Delay for Lane Group [s/veh]	2.55	3.86	11.62	49.72	47.76
Lane Group LOS	A	A	B	D	D
Critical Lane Group	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.60	0.10	5.00	3.83	3.24
50th-Percentile Queue Length [ft/ln]	15.08	2.43	124.97	95.68	81.11
95th-Percentile Queue Length [veh/ln]	1.09	0.17	8.67	6.89	5.84
95th-Percentile Queue Length [ft/ln]	27.15	4.37	216.64	172.23	146.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.55	2.55	2.55	3.86	11.62	11.62	49.72	49.72	49.72	47.76	47.76	47.76
Movement LOS	A	A	A	A	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]		2.55			11.45			49.72			47.76	
Approach LOS		A			B			D			D	
d_I, Intersection Delay [s/veh]	14.00											
Intersection LOS	B											
Intersection V/C	0.840											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	37.14	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.834	0.000
Crosswalk LOS	F	F	A	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1663	1663	168	168
d_b, Bicycle Delay [s]	1.35	1.35	39.84	39.84
I_b,int, Bicycle LOS Score for Intersection	2.459	3.828	1.807	1.774
Bicycle LOS	B	D	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	31.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	120	48	16	316	21	2	72	49	135	107	11
Total Analysis Volume [veh/h]	81	480	190	64	1263	82	8	286	197	541	427	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	16	0	29	34	0	12	18	0	17	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	32	32	5	31	31	1	14	14	13	26	26
g / C, Green / Cycle	0.07	0.40	0.40	0.07	0.39	0.39	0.01	0.17	0.17	0.16	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.05	0.13	0.12	0.04	0.35	0.05	0.00	0.15	0.12	0.16	0.23	0.03
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	3459	1870	1589
c, Capacity [veh/h]	131	1416	632	119	1392	622	26	324	275	562	600	510
d1, Uniform Delay [s]	36.00	16.78	16.49	36.16	23.00	15.65	39.04	32.32	31.25	33.27	23.92	18.96
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.16	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.71	0.65	1.22	3.73	10.15	0.44	6.43	7.94	3.47	10.75	2.38	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.34	0.30	0.54	0.91	0.13	0.31	0.88	0.72	0.96	0.71	0.08
d, Delay for Lane Group [s/veh]	40.71	17.44	17.71	39.89	33.15	16.09	45.47	40.26	34.72	44.03	26.30	19.03
Lane Group LOS	D	B	B	D	C	B	D	D	C	D	C	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.58	2.73	2.24	1.23	11.29	0.90	0.19	5.56	3.49	5.52	6.51	0.49
50th-Percentile Queue Length [ft/ln]	39.45	68.25	55.96	30.85	282.20	22.49	4.76	138.94	87.29	138.00	162.85	12.16
95th-Percentile Queue Length [veh/ln]	2.84	4.91	4.03	2.22	16.80	1.62	0.34	9.42	6.28	9.37	10.70	0.88
95th-Percentile Queue Length [ft/ln]	71.02	122.86	100.73	55.53	419.96	40.49	8.57	235.60	157.12	234.33	267.49	21.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.71	17.44	17.71	39.89	33.15	16.09	45.47	40.26	34.72	44.03	26.30	19.03
Movement LOS	D	B	B	D	C	B	D	D	C	D	C	B
d_A, Approach Delay [s/veh]	20.02			32.47			38.12			35.49		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	31.51											
Intersection LOS	C											
Intersection V/C	0.747											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	300	750	350	475
d_b, Bicycle Delay [s]	28.90	15.63	27.23	23.26
I_b,int, Bicycle LOS Score for Intersection	2.179	2.722	2.370	3.226
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	44.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.850

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	202	65	21	513	16	26	0	137	118	17	31
Total Analysis Volume [veh/h]	158	806	258	82	2050	64	103	0	548	472	68	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	20	27	0	39	46	0	13	16	16	18	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	52	52	6	42	42	7	12	32	14	19	19
g / C, Green / Cycle	0.16	0.52	0.52	0.06	0.42	0.42	0.07	0.12	0.32	0.14	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.09	0.23	0.16	0.05	0.39	0.39	0.06	0.00	0.34	0.14	0.06	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1841	1781	1870	1589	3459	1771	1589
c, Capacity [veh/h]	279	1843	823	112	1509	780	130	224	503	484	331	297
d1, Uniform Delay [s]	39.03	15.05	13.90	46.03	27.26	27.33	45.63	0.00	34.19	42.83	35.04	35.06
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.80	0.76	1.00	8.84	10.82	18.54	10.42	0.00	66.88	13.91	0.50	0.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.44	0.31	0.73	0.92	0.93	0.79	0.00	1.09	0.97	0.30	0.30
d, Delay for Lane Group [s/veh]	40.83	15.80	14.89	54.87	38.08	45.86	56.05	0.00	101.07	56.73	35.54	35.64
Lane Group LOS	D	B	B	D	D	D	E	A	F	E	D	D
Critical Lane Group	No	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.50	5.08	3.12	2.17	15.98	18.29	2.88	0.00	21.17	6.68	2.12	1.94
50th-Percentile Queue Length [ft/ln]	87.55	127.08	77.97	54.18	399.52	457.33	71.90	0.00	529.14	166.90	53.09	48.43
95th-Percentile Queue Length [veh/ln]	6.30	8.78	5.61	3.90	22.54	25.31	5.18	0.00	30.33	10.91	3.82	3.49
95th-Percentile Queue Length [ft/ln]	157.59	219.52	140.34	97.52	563.42	632.69	129.42	0.00	758.18	272.84	95.57	87.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.83	15.80	14.89	54.87	40.58	45.86	56.05	0.00	101.07	56.73	35.54	35.61
Movement LOS	D	B	B	D	D	D	E	A	F	E	D	D
d_A, Approach Delay [s/veh]	18.85			41.26			93.95			50.66		
Approach LOS	B			D			F			D		
d_I, Intersection Delay [s/veh]	44.04											
Intersection LOS	D											
Intersection V/C	0.850											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.451	2.365	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	460	840	240	340
d_b, Bicycle Delay [s]	29.65	16.82	38.72	34.45
I_b,int, Bicycle LOS Score for Intersection	2.568	2.767	2.634	2.652
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.774

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	10	45	8	33	5	4	27	24	98	31	6
Total Analysis Volume [veh/h]	51	40	181	31	130	19	14	108	97	393	124	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	467	541	457	487	536	457	489	539	508	546	610
Degree of Utilization, x	0.11	0.41	0.07	0.27	0.04	0.03	0.22	0.18	0.77	0.23	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	1.98	0.22	1.07	0.11	0.09	0.84	0.65	6.94	0.87	0.12
95th-Percentile Queue Length [ft]	9.13	49.41	5.44	26.70	2.75	2.36	20.93	16.26	173.44	21.70	2.94
Approach Delay [s/veh]	13.41		12.17			11.49			24.86		
Approach LOS	B		B			B			C		
Intersection Delay [s/veh]	17.98										
Intersection LOS	C										

Intersection Level Of Service Report
Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	46	22	37	144	26	27	64	37	30	66	24
Total Analysis Volume [veh/h]	45	185	89	148	577	102	108	254	146	118	263	97
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	42	0	0	42	0	0	18	0	0	18	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	38	38	14	14	14	14	14	14
g / C, Green / Cycle	0.63	0.63	0.23	0.23	0.23	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.20	0.50	0.10	0.14	0.09	0.10	0.14	0.06
s, saturation flow rate [veh/h]	1584	1670	1116	1870	1589	1125	1870	1589
c, Capacity [veh/h]	1069	1125	212	440	374	219	440	374
d1, Uniform Delay [s]	4.96	7.74	27.91	20.33	19.34	27.83	20.44	18.71
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.71	4.28	1.88	1.20	0.67	2.07	1.31	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.73	0.51	0.58	0.39	0.54	0.60	0.26
d, Delay for Lane Group [s/veh]	5.68	12.02	29.79	21.53	20.01	29.90	21.75	19.07
Lane Group LOS	A	B	C	C	C	C	C	B
Critical Lane Group	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.03	5.23	1.49	2.79	1.51	1.63	2.91	0.97
50th-Percentile Queue Length [ft/ln]	25.78	130.70	37.21	69.63	37.80	40.83	72.67	24.13
95th-Percentile Queue Length [veh/ln]	1.86	8.98	2.68	5.01	2.72	2.94	5.23	1.74
95th-Percentile Queue Length [ft/ln]	46.40	224.45	66.97	125.33	68.05	73.49	130.80	43.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.68	5.68	5.68	12.02	12.02	12.02	29.79	21.53	20.01	29.90	21.75	19.07
Movement LOS	A	A	A	B	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	5.68			12.02			22.85			23.22		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	16.16											
Intersection LOS	B											
Intersection V/C	0.681											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1267	1267	467	467
d_b, Bicycle Delay [s]	4.03	4.03	17.63	17.63
I_b,int, Bicycle LOS Score for Intersection	2.086	2.924	2.398	2.348
Bicycle LOS	B	C	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	Signalized	Delay (sec / veh):	18.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.781

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	61	28	27	184	8	1	5	26	72	22	8
Total Analysis Volume [veh/h]	71	243	111	108	737	33	4	21	105	288	87	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	36	0	0	36	0	0	24	0	0	24	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	19	19	19	19
g / C, Green / Cycle	0.54	0.54	0.54	0.54	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.10	0.13	0.07	0.50	0.08	0.23	0.05	0.02
s, saturation flow rate [veh/h]	699	1870	1589	1753	1632	1264	1870	1589
c, Capacity [veh/h]	172	1012	861	1016	593	366	609	517
d1, Uniform Delay [s]	13.35	7.26	6.79	12.43	14.85	20.98	14.33	13.95
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.14	0.56	0.31	9.71	0.18	3.76	0.11	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.24	0.13	0.86	0.22	0.79	0.14	0.06
d, Delay for Lane Group [s/veh]	20.49	7.82	7.10	22.14	15.03	24.74	14.44	14.00
Lane Group LOS	C	A	A	C	B	C	B	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.89	1.17	0.51	8.93	1.21	3.69	0.72	0.26
50th-Percentile Queue Length [ft/ln]	22.15	29.18	12.63	223.23	30.33	92.16	18.01	6.46
95th-Percentile Queue Length [veh/ln]	1.60	2.10	0.91	13.83	2.18	6.64	1.30	0.47
95th-Percentile Queue Length [ft/ln]	39.88	52.53	22.74	345.75	54.60	165.89	32.41	11.63

Movement, Approach, & Intersection Results

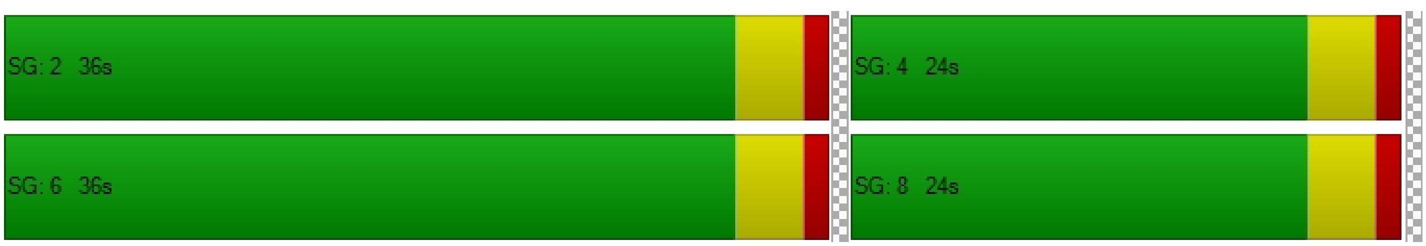
d_M, Delay for Movement [s/veh]	20.49	7.82	7.10	22.14	22.14	22.14	15.03	15.03	15.03	24.74	14.44	14.00
Movement LOS	C	A	A	C	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	9.75			22.14			15.03			21.69		
Approach LOS	A			C			B			C		
d_I, Intersection Delay [s/veh]	18.68											
Intersection LOS	B											
Intersection V/C	0.781											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	1067	667	667
d_b, Bicycle Delay [s]	6.53	6.53	13.33	13.33
I_b,int, Bicycle LOS Score for Intersection	2.261	3.008	1.774	2.231
Bicycle LOS	B	C	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	33.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.787

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	16	12	75	83	109	32	53	42	51	154	45
Total Analysis Volume [veh/h]	49	63	47	300	330	436	129	213	167	203	615	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	11	0	19	11	0	68	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	29	7	36	12	42
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.08	0.41	0.14	0.47
(v / s)_i Volume / Saturation Flow Rate	0.05	0.03	0.03	0.22	0.18	0.27	0.04	0.22	0.11	0.44
s, saturation flow rate [veh/h]	1050	1870	1589	1339	1870	1589	3459	1735	1781	1799
c, Capacity [veh/h]	264	606	515	470	606	515	265	702	246	838
d1, Uniform Delay [s]	32.13	21.29	21.20	29.17	24.98	28.35	39.89	20.46	37.76	22.98
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.55	0.34	0.35	6.51	3.49	15.66	1.38	0.65	6.83	10.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.10	0.09	0.64	0.54	0.85	0.49	0.54	0.82	0.95
d, Delay for Lane Group [s/veh]	33.68	21.63	21.55	35.68	28.47	44.01	41.27	21.12	44.59	33.05
Lane Group LOS	C	C	C	D	C	D	D	C	D	C
Critical Lane Group	No	No	No	No	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.03	0.97	0.73	6.15	5.75	9.99	1.33	5.41	4.49	15.54
50th-Percentile Queue Length [ft/ln]	25.65	24.31	18.24	153.83	143.81	249.65	33.26	135.29	112.18	388.61
95th-Percentile Queue Length [veh/ln]	1.85	1.75	1.31	10.22	9.69	15.17	2.39	9.23	7.96	22.01
95th-Percentile Queue Length [ft/ln]	46.16	43.76	32.83	255.53	242.15	379.21	59.87	230.67	199.03	550.26

Movement, Approach, & Intersection Results

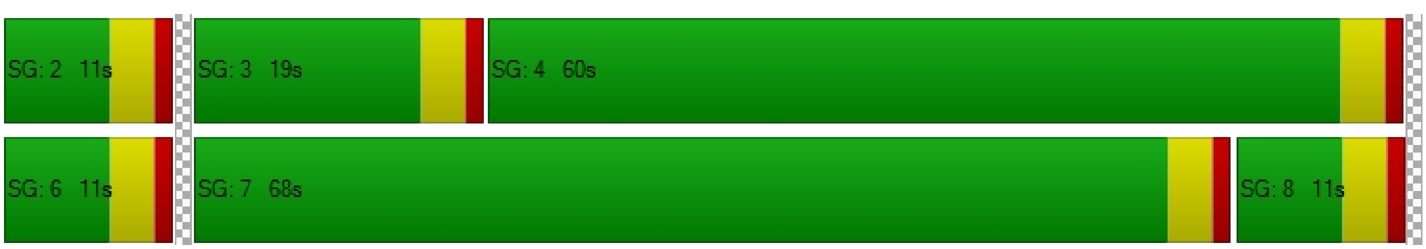
d_M, Delay for Movement [s/veh]	33.68	21.63	21.55	35.68	28.47	44.01	41.27	21.12	21.12	44.59	33.05	33.05
Movement LOS	C	C	C	D	C	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	25.32			36.85			26.22			35.40		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	33.67											
Intersection LOS	C											
Intersection V/C	0.787											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	156	156	156	1244
d_b, Bicycle Delay [s]	38.27	38.27	38.27	6.42
I_b,int, Bicycle LOS Score for Intersection	1.822	3.319	2.399	3.203
Bicycle LOS	A	C	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	12	18	13	70	22	11	9	45	35	11	4
Total Analysis Volume [veh/h]	119	48	73	53	280	87	45	34	181	139	43	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	495	568	609	600	546
Degree of Utilization, x	0.24	0.21	0.69	0.43	0.36

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.93	0.80	5.42	2.18	1.66
95th-Percentile Queue Length [ft]	23.30	20.00	135.44	54.58	41.41
Approach Delay [s/veh]	11.50		20.98	13.51	13.32
Approach LOS	B		C	B	B
Intersection Delay [s/veh]	15.85				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.424

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	4	6	0	7	1	1	9	58	19	11	1
Total Analysis Volume [veh/h]	241	15	25	1	26	4	4	34	232	77	44	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	568	617	702	554	624	605	693	558	663
Degree of Utilization, x	0.42	0.02	0.04	0.05	0.01	0.06	0.34	0.22	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.10	0.07	0.11	0.15	0.02	0.20	1.47	0.82	0.01
95th-Percentile Queue Length [ft]	52.49	1.87	2.76	3.83	0.48	5.02	36.86	20.45	0.23
Approach Delay [s/veh]	12.85			9.40		10.30		10.88	
Approach LOS	B			A		B		B	
Intersection Delay [s/veh]	11.38								
Intersection LOS	B								

Intersection Level Of Service Report
Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┑╎┣			┑╎┣			┑╎┣			┑╎┣		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	77	14	11	125	12	8	50	47	20	51	11
Total Analysis Volume [veh/h]	212	308	56	44	498	49	31	200	187	81	202	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	17	27	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	34	34	4	28	28	3	11	11	6	13	13
g / C, Green / Cycle	0.15	0.48	0.48	0.06	0.39	0.39	0.05	0.15	0.15	0.08	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.12	0.10	0.10	0.02	0.15	0.15	0.02	0.11	0.12	0.05	0.07	0.07
s, saturation flow rate [veh/h]	1781	1870	1772	1781	1870	1812	1781	1870	1589	1781	1870	1761
c, Capacity [veh/h]	260	896	849	106	735	712	84	285	242	144	348	327
d1, Uniform Delay [s]	29.08	10.58	10.59	31.85	15.20	15.22	32.44	28.27	28.62	31.07	24.94	24.98
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.13	0.53	0.56	2.57	1.48	1.54	2.65	3.16	5.21	3.38	0.62	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.21	0.21	0.41	0.38	0.38	0.37	0.70	0.77	0.56	0.36	0.37
d, Delay for Lane Group [s/veh]	35.20	11.10	11.15	34.42	16.68	16.75	35.09	31.43	33.83	34.45	25.56	25.67
Lane Group LOS	D	B	B	C	B	B	D	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.70	1.58	1.52	0.76	3.13	3.06	0.55	3.25	3.19	1.39	1.75	1.70
50th-Percentile Queue Length [ft/ln]	92.55	39.42	37.89	19.07	78.13	76.38	13.75	81.34	79.83	34.80	43.86	42.60
95th-Percentile Queue Length [veh/ln]	6.66	2.84	2.73	1.37	5.63	5.50	0.99	5.86	5.75	2.51	3.16	3.07
95th-Percentile Queue Length [ft/ln]	166.60	70.95	68.19	34.32	140.63	137.48	24.75	146.41	143.69	62.64	78.96	76.67

Movement, Approach, & Intersection Results

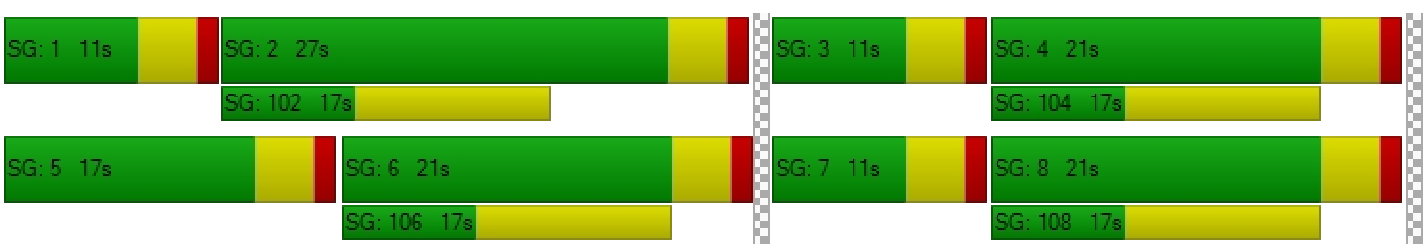
d_M, Delay for Movement [s/veh]	35.20	11.12	11.15	34.42	16.71	16.75	35.09	31.43	33.83	34.45	25.60	25.67
Movement LOS	D	B	B	C	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.99			18.03			32.77			27.81		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	23.51											
Intersection LOS	C											
Intersection V/C	0.559											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	2.591	2.507	2.606	2.428
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	657	486	486	486
d_b, Bicycle Delay [s]	15.78	20.06	20.06	20.06
I_b,int, Bicycle LOS Score for Intersection	2.035	2.047	1.904	1.828
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	156	12	26	181	7	7	34	26	33	34	31
Total Analysis Volume [veh/h]	55	622	48	105	723	28	29	136	102	133	137	122
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	30	30	6	31	31	3	7	7	6	10	10
g / C, Green / Cycle	0.07	0.46	0.46	0.09	0.48	0.48	0.05	0.11	0.11	0.10	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.06	0.20	0.20	0.02	0.07	0.07	0.07	0.07	0.08
s, saturation flow rate [veh/h]	1781	1870	1823	1781	1870	1846	1781	1870	1616	1781	1870	1589
c, Capacity [veh/h]	125	850	829	166	893	882	82	200	173	178	301	256
d1, Uniform Delay [s]	29.12	11.87	11.87	28.51	11.16	11.16	30.18	27.85	28.00	28.58	24.80	24.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	1.40	1.44	3.91	1.47	1.49	2.54	3.04	4.28	6.14	1.08	1.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.40	0.40	0.63	0.42	0.42	0.35	0.61	0.66	0.75	0.46	0.48
d, Delay for Lane Group [s/veh]	31.55	13.27	13.31	32.42	12.63	12.65	32.72	30.89	32.28	34.72	25.88	26.28
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.86	3.12	3.05	1.67	3.35	3.31	0.46	1.83	1.76	2.17	1.84	1.66
50th-Percentile Queue Length [ft/ln]	21.59	77.91	76.32	41.64	83.78	82.82	11.56	45.80	44.04	54.18	46.05	41.60
95th-Percentile Queue Length [veh/ln]	1.55	5.61	5.50	3.00	6.03	5.96	0.83	3.30	3.17	3.90	3.32	3.00
95th-Percentile Queue Length [ft/ln]	38.86	140.23	137.38	74.96	150.80	149.08	20.81	82.43	79.28	97.53	82.89	74.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.55	13.29	13.31	32.42	12.64	12.65	32.72	31.02	32.28	34.72	25.88	26.28
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]		14.67			15.07			31.69			29.00	
Approach LOS		B			B			C			C	
d_I, Intersection Delay [s/veh]						19.36						
Intersection LOS						B						
Intersection V/C						0.512						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.754	2.652	2.291	2.459
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.158	2.266	1.780	2.206
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	51.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.022

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]	40.00			35.00			40.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	163	52	26	244	8	13	63	103	88	62	24
Total Analysis Volume [veh/h]	199	653	207	103	974	31	52	252	410	351	249	95
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	11	28	0	12	27	0	21	36	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	27	27	7	24	24	5	23	23	17	35	35
g / C, Green / Cycle	0.11	0.31	0.31	0.07	0.27	0.27	0.06	0.25	0.25	0.19	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.13	0.06	0.27	0.02	0.03	0.13	0.26	0.20	0.13	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	198	1089	486	131	954	426	101	475	404	336	722	614
d1, Uniform Delay [s]	40.01	26.57	24.94	41.02	32.95	24.60	41.25	28.95	33.58	36.52	19.58	18.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.29	0.15	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	30.74	2.44	2.72	9.97	34.42	0.33	3.96	0.92	37.70	38.89	0.28	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.00	0.60	0.43	0.79	1.02	0.07	0.51	0.53	1.02	1.04	0.34	0.15
d, Delay for Lane Group [s/veh]	70.75	29.01	27.66	50.99	67.37	24.93	45.21	29.87	71.28	75.41	19.86	18.17
Lane Group LOS	F	C	C	D	F	C	D	C	F	F	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.90	5.98	3.71	2.56	14.48	0.52	1.20	4.58	12.51	10.76	3.57	1.25
50th-Percentile Queue Length [ft/ln]	147.59	149.51	92.67	63.89	361.93	13.00	29.91	114.43	312.76	268.98	89.18	31.36
95th-Percentile Queue Length [veh/ln]	9.90	9.99	6.67	4.60	20.97	0.94	2.15	8.09	18.47	16.49	6.42	2.26
95th-Percentile Queue Length [ft/ln]	247.62	249.77	166.80	115.00	524.30	23.40	53.83	202.15	461.83	412.13	160.53	56.46

Movement, Approach, & Intersection Results

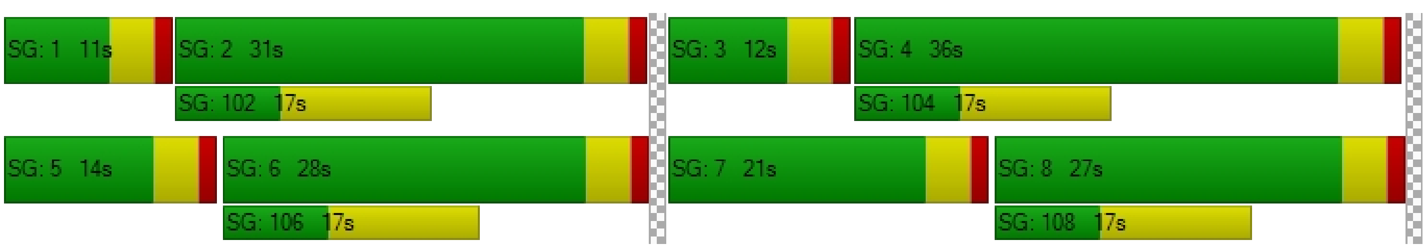
d_M, Delay for Movement [s/veh]	70.75	29.01	27.66	50.99	67.37	24.93	45.21	29.87	71.28	75.41	19.86	18.17
Movement LOS	F	C	C	D	F	C	D	C	F	F	B	B
d_A, Approach Delay [s/veh]	36.59			64.66			54.77			47.68		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	51.07											
Intersection LOS	D											
Intersection V/C	1.022											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
I_p,int, Pedestrian LOS Score for Intersection	3.112	2.814	2.711	2.488
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	533	511	711
d_b, Bicycle Delay [s]	22.05	24.20	24.94	18.69
I_b,int, Bicycle LOS Score for Intersection	2.433	2.474	2.738	2.706
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	42.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.869

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	155	23	14	505	24	10	19	77	93	58	16
Total Analysis Volume [veh/h]	139	621	92	54	2018	97	40	74	308	373	233	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	26	0	37	52	0	11	21	21	16	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	57	57	5	55	55	5	10	21	12	17	17
g / C, Green / Cycle	0.07	0.57	0.57	0.05	0.55	0.55	0.05	0.10	0.21	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.06	0.03	0.57	0.06	0.02	0.04	0.19	0.11	0.12	0.04
s, saturation flow rate [veh/h]	3459	3560	1589	1781	3560	1589	1781	1870	1589	3459	1870	1589
c, Capacity [veh/h]	245	2015	899	99	1960	875	86	184	332	417	319	271
d1, Uniform Delay [s]	45.04	11.43	10.02	46.06	22.50	10.77	46.41	42.39	38.85	43.41	39.33	35.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.19	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.06	0.40	0.23	4.64	28.28	0.26	3.91	1.42	17.25	6.92	3.21	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.31	0.10	0.55	1.03	0.11	0.47	0.40	0.93	0.89	0.73	0.23
d, Delay for Lane Group [s/veh]	47.11	11.83	10.24	50.70	50.78	11.03	50.32	43.80	56.11	50.33	42.54	36.26
Lane Group LOS	D	B	B	D	F	B	D	D	E	D	D	D
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.63	3.04	0.82	1.37	26.15	0.94	1.01	1.69	8.46	4.67	5.35	1.26
50th-Percentile Queue Length [ft/ln]	40.84	76.12	20.46	34.16	653.63	23.40	25.30	42.34	211.48	116.80	133.68	31.48
95th-Percentile Queue Length [veh/ln]	2.94	5.48	1.47	2.46	35.36	1.68	1.82	3.05	13.23	8.22	9.14	2.27
95th-Percentile Queue Length [ft/ln]	73.51	137.01	36.84	61.48	884.01	42.12	45.53	76.22	330.73	205.43	228.49	56.66

Movement, Approach, & Intersection Results

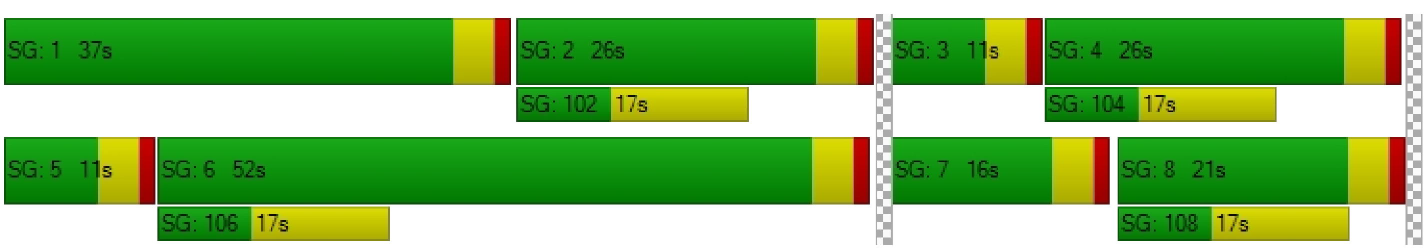
d_M, Delay for Movement [s/veh]	47.11	11.83	10.24	50.70	50.78	11.03	50.32	43.80	56.11	50.33	42.54	36.26
Movement LOS	D	B	B	D	F	B	D	D	E	D	D	D
d_A, Approach Delay [s/veh]	17.41			49.00			53.40			46.31		
Approach LOS	B			D			D			D		
d_I, Intersection Delay [s/veh]	42.47											
Intersection LOS	D											
Intersection V/C	0.869											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	3.623	3.337	2.623	2.622
Crosswalk LOS	D	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	440	960	340	440
d_b, Bicycle Delay [s]	30.42	13.52	34.45	30.42
I_b,int, Bicycle LOS Score for Intersection	2.263	3.349	2.256	2.662
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.811

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	190	14	4	680	11	14	21	9	71	28	2
Total Analysis Volume [veh/h]	46	759	57	17	2720	44	55	85	37	283	111	6
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	40	0	0	40	0	0	20	0	0	20	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	36	16	16	16
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.60	0.60	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.44	0.21	0.04	0.02	0.53	0.03	0.11	0.22	0.06
s, saturation flow rate [veh/h]	105	3560	1589	706	5094	1589	1595	1269	1853
c, Capacity [veh/h]	130	2131	951	439	3049	951	506	316	497
d1, Uniform Delay [s]	29.42	6.15	5.02	9.24	10.38	4.98	17.88	22.84	17.17
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.43	0.47	0.12	0.17	4.47	0.09	0.41	8.83	0.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.36	0.06	0.04	0.89	0.05	0.35	0.89	0.24
d, Delay for Lane Group [s/veh]	36.85	6.62	5.14	9.40	14.85	5.07	18.30	31.67	17.41
Lane Group LOS	D	A	A	A	B	A	B	C	B
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.84	1.31	0.18	0.11	5.99	0.13	1.76	4.19	1.11
50th-Percentile Queue Length [ft/ln]	20.98	32.79	4.39	2.63	149.86	3.36	43.89	104.81	27.84
95th-Percentile Queue Length [veh/ln]	1.51	2.36	0.32	0.19	10.01	0.24	3.16	7.55	2.00
95th-Percentile Queue Length [ft/ln]	37.77	59.02	7.91	4.73	250.25	6.04	79.01	188.65	50.11

Movement, Approach, & Intersection Results

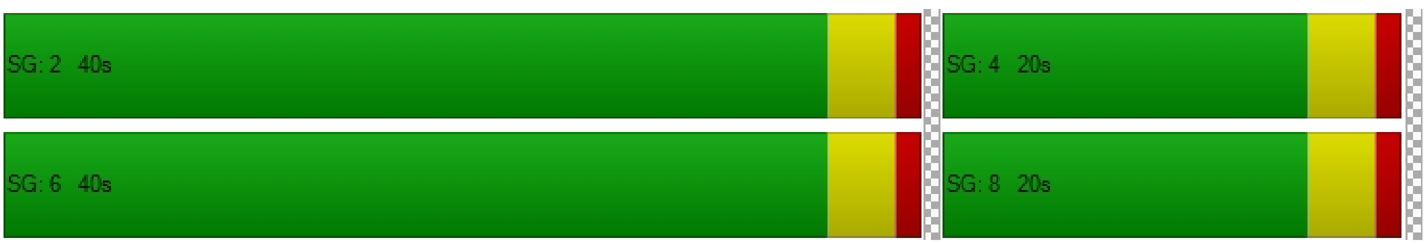
d_M, Delay for Movement [s/veh]	36.85	6.62	5.14	9.40	14.85	5.07	18.30	18.30	18.30	31.67	17.41	17.41
Movement LOS	D	A	A	A	B	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]		8.13			14.66			18.30			27.49	
Approach LOS		A			B			B			C	
d_I, Intersection Delay [s/veh]	14.70											
Intersection LOS	B											
Intersection V/C	0.811											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1200	1200	533	533
d_b, Bicycle Delay [s]	4.80	4.80	16.13	16.13
I_b,int, Bicycle LOS Score for Intersection	2.271	3.089	1.852	2.220
Bicycle LOS	B	C	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	54.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.956

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	197	30	37	742	16	25	91	35	41	29	8
Total Analysis Volume [veh/h]	63	788	118	148	2969	62	100	364	138	164	115	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	21	0	55	65	0	23	33	0	11	21	21
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	60	60	12	65	65	8	25	25	7	24	104
g / C, Green / Cycle	0.05	0.50	0.50	0.10	0.55	0.55	0.07	0.21	0.21	0.06	0.20	0.86
(v / s)_i Volume / Saturation Flow Rate	0.04	0.15	0.07	0.08	0.58	0.04	0.06	0.19	0.09	0.05	0.06	0.02
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	3459	1870	1589
c, Capacity [veh/h]	92	2533	790	179	2781	868	126	393	334	203	371	1371
d1, Uniform Delay [s]	55.96	17.94	16.38	52.98	27.25	12.87	54.92	46.46	40.98	55.82	41.09	1.15
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.29	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.70	0.32	0.40	9.37	38.44	0.16	10.74	20.36	0.81	7.42	0.47	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.69	0.31	0.15	0.83	1.07	0.07	0.80	0.93	0.41	0.81	0.31	0.02
d, Delay for Lane Group [s/veh]	64.66	18.26	16.78	62.35	65.68	13.03	65.67	66.82	41.79	63.25	41.56	1.16
Lane Group LOS	E	B	B	E	F	B	E	E	D	E	D	A
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.01	3.97	1.68	4.62	32.16	0.74	3.23	12.29	3.44	2.56	2.83	0.02
50th-Percentile Queue Length [ft/ln]	50.25	99.21	42.11	115.52	804.07	18.54	80.81	307.31	86.05	64.12	70.67	0.51
95th-Percentile Queue Length [veh/ln]	3.62	7.14	3.03	8.15	43.71	1.34	5.82	18.04	6.20	4.62	5.09	0.04
95th-Percentile Queue Length [ft/ln]	90.44	178.57	75.81	203.66	1092.72	33.38	145.46	451.06	154.89	115.42	127.21	0.93

Movement, Approach, & Intersection Results

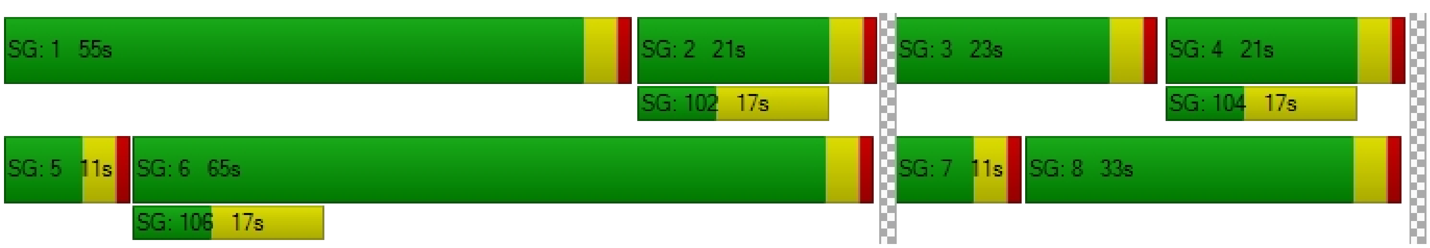
d_M, Delay for Movement [s/veh]	64.66	18.26	16.78	62.35	65.68	13.03	65.67	66.82	41.79	63.25	41.56	1.16
Movement LOS	E	B	B	E	F	B	E	E	D	E	D	A
d_A, Approach Delay [s/veh]	21.10			64.50			60.89			48.84		
Approach LOS	C			E			E			D		
d_I, Intersection Delay [s/veh]	54.80											
Intersection LOS	D											
Intersection V/C	0.956											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	49.50	49.50
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.738	2.615	2.650
Crosswalk LOS	F	D	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	283	1017	483	283
d_b, Bicycle Delay [s]	44.20	14.50	34.50	44.20
I_b,int, Bicycle LOS Score for Intersection	2.093	3.308	2.553	2.073
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐├			┐|┌			┐├			┐├		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	30	9	47	37	6	5	67	33	22	73	28
Total Analysis Volume [veh/h]	103	120	37	187	147	24	19	266	131	89	292	112
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	21	0	12	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	19	8	21	21	2	16	6	20
g / C, Green / Cycle	0.09	0.29	0.12	0.32	0.32	0.03	0.25	0.09	0.31
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.11	0.08	0.02	0.01	0.22	0.05	0.23
s, saturation flow rate [veh/h]	1781	1795	1781	1870	1589	1781	1767	1781	1783
c, Capacity [veh/h]	164	527	220	608	516	58	442	155	544
d1, Uniform Delay [s]	28.50	17.82	27.96	16.11	15.07	30.82	23.61	28.57	20.34
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.94	1.45	8.88	0.94	0.17	3.25	6.71	3.31	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.30	0.85	0.24	0.05	0.33	0.90	0.57	0.74
d, Delay for Lane Group [s/veh]	32.44	19.27	36.84	17.05	15.24	34.07	30.31	31.87	22.37
Lane Group LOS	C	B	D	B	B	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.68	1.95	3.20	1.61	0.25	0.32	6.04	1.38	5.12
50th-Percentile Queue Length [ft/ln]	42.09	48.83	80.09	40.26	6.15	8.11	151.11	34.41	127.88
95th-Percentile Queue Length [veh/ln]	3.03	3.52	5.77	2.90	0.44	0.58	10.08	2.48	8.82
95th-Percentile Queue Length [ft/ln]	75.77	87.89	144.16	72.46	11.07	14.59	251.91	61.94	220.60

Movement, Approach, & Intersection Results

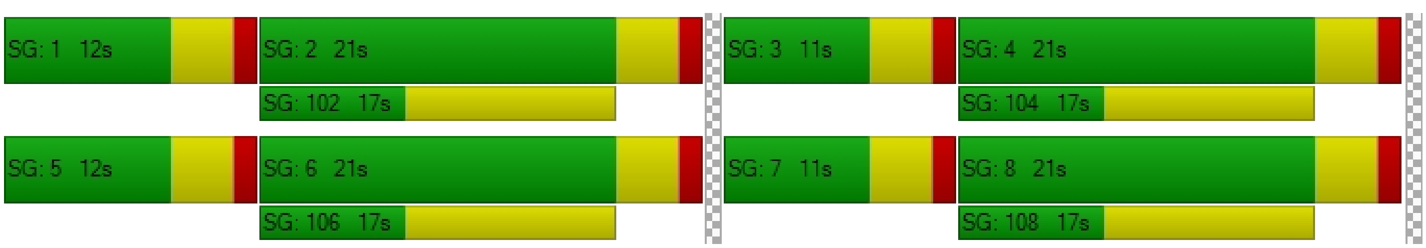
d_M, Delay for Movement [s/veh]	32.44	19.27	19.27	36.84	17.05	15.24	34.07	30.31	30.31	31.87	22.37	22.37
Movement LOS	C	B	B	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	24.49			27.27			30.48			24.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.64											
Intersection LOS	C											
Intersection V/C	0.619											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.092	2.286	2.384	2.433
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	1.989	2.150	2.246	2.373
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	46.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.921

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	29	13	2	131	60	19	41	66	58	89	5
Total Analysis Volume [veh/h]	53	116	53	6	524	240	74	163	263	233	357	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	26	0	11	26	0	17	56	0	12	51	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	51	1	47	6	29	8	31
g / C, Green / Cycle	0.05	0.48	0.01	0.44	0.06	0.27	0.08	0.29
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.00	0.43	0.04	0.25	0.07	0.20
s, saturation flow rate [veh/h]	1781	1772	1781	1772	1781	1686	3459	1853
c, Capacity [veh/h]	95	857	21	783	107	464	266	541
d1, Uniform Delay [s]	48.53	15.48	51.50	28.75	48.47	36.95	48.02	33.06
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.00	0.51	7.17	26.64	7.81	7.76	8.90	1.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.20	0.28	0.98	0.69	0.92	0.88	0.70
d, Delay for Lane Group [s/veh]	53.53	15.99	58.67	55.39	56.27	44.70	56.92	34.69
Lane Group LOS	D	B	E	E	E	D	E	C
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.42	2.18	0.19	22.22	2.04	10.77	3.19	8.12
50th-Percentile Queue Length [ft/ln]	35.56	54.48	4.79	555.50	51.01	269.25	79.82	203.04
95th-Percentile Queue Length [veh/ln]	2.56	3.92	0.34	29.95	3.67	16.15	5.75	12.80
95th-Percentile Queue Length [ft/ln]	64.00	98.07	8.62	748.77	91.81	403.81	143.68	319.88

Movement, Approach, & Intersection Results

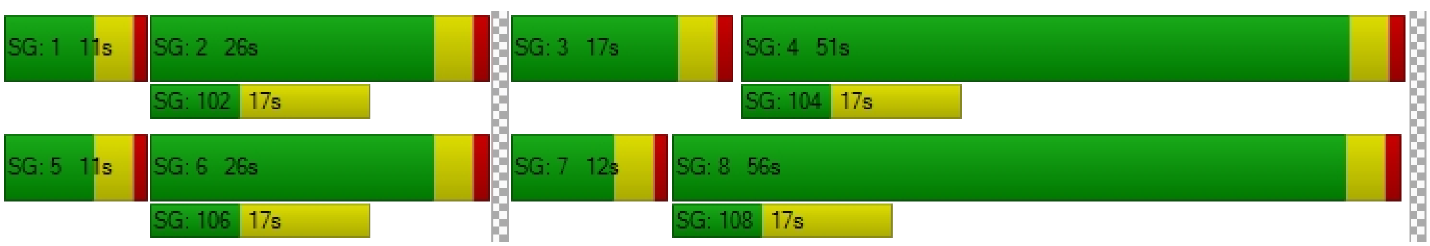
d_M, Delay for Movement [s/veh]	53.53	15.99	15.99	58.67	55.39	55.39	56.27	44.70	44.70	56.92	34.69	34.69
Movement LOS	D	B	B	E	E	E	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	24.96			55.42			46.42			43.18		
Approach LOS	C			E			D			D		
d_I, Intersection Delay [s/veh]	46.51											
Intersection LOS	D											
Intersection V/C	0.921											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	2.693	2.531	2.652	2.605
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	419	419	990	895
d_b, Bicycle Delay [s]	32.80	32.80	13.38	16.02
I_b,int, Bicycle LOS Score for Intersection	1.926	2.830	2.385	2.566
Bicycle LOS	A	C	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	46.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.988

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	1158	136	23	502	204	297
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1158	136	23	502	204	297
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	290	34	6	126	51	74
Total Analysis Volume [veh/h]	1158	136	23	502	204	297
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	0	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	51	0	0	24	24	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	C	R
C, Cycle Length [s]	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	20	20	20
g / C, Green / Cycle	0.63	0.63	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.65	0.09	0.29	0.11	0.19
s, saturation flow rate [veh/h]	1781	1589	1840	1870	1589
c, Capacity [veh/h]	1112	993	545	503	427
d1, Uniform Delay [s]	14.07	5.78	27.94	22.50	24.65
k, delay calibration	0.50	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	38.19	0.06	30.60	2.43	9.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.04	0.14	0.96	0.41	0.70
d, Delay for Lane Group [s/veh]	52.26	5.84	58.54	24.93	33.67
Lane Group LOS	F	A	E	C	C
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	22.99	0.58	12.87	2.91	5.17
50th-Percentile Queue Length [ft/ln]	574.75	14.47	321.83	72.77	129.33
95th-Percentile Queue Length [veh/ln]	31.90	1.04	18.76	5.24	8.90
95th-Percentile Queue Length [ft/ln]	797.58	26.05	468.93	130.98	222.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.26	5.84	58.54	58.54	24.93	33.67
Movement LOS	F	A	E	E	C	C
d_A, Approach Delay [s/veh]	47.38		58.54		30.11	
Approach LOS	D		E		C	
d_I, Intersection Delay [s/veh]	46.18					
Intersection LOS	D					
Intersection V/C	0.988					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.50	37.50	37.50
I_b,int, Bicycle LOS Score for Intersection	4.132	4.999	4.959
Bicycle LOS	D	E	E

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	16	25	5	7	8	42	24	41	116	34
Total Analysis Volume [veh/h]	0	9	64	99	21	29	33	167	94	165	465	136
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	501	551	472	533	488	524	565	547	593	669
Degree of Utilization, x	0.02	0.12	0.21	0.09	0.07	0.25	0.23	0.30	0.79	0.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.05	0.39	0.78	0.31	0.22	0.98	0.89	1.26	7.46	0.76
95th-Percentile Queue Length [ft]	1.37	9.80	19.56	7.72	5.42	24.42	22.18	31.54	186.56	18.91
Approach Delay [s/veh]	10.09		11.60		11.32			20.92		
Approach LOS	B		B		B			C		
Intersection Delay [s/veh]	17.02									
Intersection LOS	C									

Intersection Level Of Service Report

Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.850

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	74	425	90	33	1273	69	0	267	332	485	301	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	425	90	33	1273	69	0	267	332	485	301	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	106	23	8	318	17	0	67	83	121	75	11
Total Analysis Volume [veh/h]	74	425	90	33	1273	69	0	267	332	485	301	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	28	0	0	28	0	0	32	0	0	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	24	28	28	28	28
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.40	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.17	0.12	0.06	0.03	0.36	0.04	0.14	0.21	0.44	0.19
s, saturation flow rate [veh/h]	435	3560	1589	962	3560	1589	1870	1589	1112	1830
c, Capacity [veh/h]	136	1429	638	400	1429	638	931	740	502	853
d1, Uniform Delay [s]	29.86	12.26	11.44	15.66	16.80	11.28	10.03	10.87	21.97	10.58
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.36	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.67	0.53	0.46	0.40	8.71	0.34	0.17	0.43	26.89	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.54	0.30	0.14	0.08	0.89	0.11	0.29	0.45	0.97	0.40
d, Delay for Lane Group [s/veh]	44.53	12.79	11.90	16.07	25.51	11.62	10.20	11.29	48.86	10.89
Lane Group LOS	D	B	B	B	C	B	B	B	D	B
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.58	1.82	0.76	0.30	7.21	0.46	1.92	2.62	10.45	2.62
50th-Percentile Queue Length [ft/ln]	39.44	45.62	19.04	7.42	180.23	11.49	48.05	65.46	261.19	65.45
95th-Percentile Queue Length [veh/ln]	2.84	3.28	1.37	0.53	11.61	0.83	3.46	4.71	15.75	4.71
95th-Percentile Queue Length [ft/ln]	70.99	82.12	34.28	13.36	290.32	20.68	86.48	117.83	393.72	117.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.53	12.79	11.90	16.07	25.51	11.62	10.20	10.20	11.29	48.86	10.89	10.89
Movement LOS	D	B	B	B	C	B	B	B	B	D	B	B
d_A, Approach Delay [s/veh]	16.64			24.59			10.81			33.13		
Approach LOS	B			C			B			C		
d_I, Intersection Delay [s/veh]	22.86											
Intersection LOS	C											
Intersection V/C	0.850											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	800	933	933
d_b, Bicycle Delay [s]	10.80	10.80	8.53	8.53
I_b,int, Bicycle LOS Score for Intersection	2.046	2.694	2.548	2.926
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Desert Hot Springs General Plan Update

Vistro File: G:\...\PGP PM.vistro
Scenario 2 Proposed General Plan With Improvements

Report File: G:\...\Proposed GP PM IMP.pdf
6/4/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	SR-62 (NS) at Indian Canyon Dr (EW)	Signalized	HCM 6th Edition	NB Thru	0.974	54.2	D
3	SR-62 (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.772	20.2	C
4	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Signalized	HCM 6th Edition	SB Left	0.668	17.4	B
5	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.704	20.8	C
6	Indian Canyon Dr (NS) at 14th Ave (EW)	Signalized	HCM 6th Edition	SB Left	1.021	39.5	D
7	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Thru	0.769	33.4	C
8	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.970	39.0	D
9	Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)	All-way stop	HCM 6th Edition	NB Right	0.872	22.6	C
10	Little Morongo Rd (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	EB Left	0.834	19.3	B
11	Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)	Signalized	HCM 6th Edition	WB Left	0.641	14.5	B
12	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.777	35.8	D
13	Little Morongo Rd (NS) at 20th Ave (EW)	All-way stop	HCM 6th Edition	NB Left	0.728	17.7	C
14	Palm Dr (NS) at 16th St (EW)	All-way stop	HCM 6th Edition	NB Left	0.401	10.4	B
15	Palm Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.502	20.5	C
16	Palm Dr (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.737	24.2	C
17	Palm Dr (NS) at Two Bunch Palms Trail (EW)	Signalized	HCM 6th Edition	EB Thru	1.021	48.6	D
18	Palm Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	1.003	48.3	D

19	Palm Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.970	16.7	B
20	Palm Dr (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.981	43.3	D
21	Mountain View Rd (NS) at Hacienda Ave (EW)	Signalized	HCM 6th Edition	WB Thru	0.813	34.6	C
22	Mountain View Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.648	24.1	C
23	Mountain View Rd (NS) at Varner Rd (EW)	Signalized	HCM 6th Edition	SB Left	1.032	46.6	D
24	Long Canyon Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.738	20.0	C
101	SR-62 SB (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	NB Left	0.946	35.8	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: SR-62 (NS) at Indian Canyon Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	54.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.974

Intersection Setup

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	407.00	100.00	100.00	493.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			55.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Kolbe Rd			Indian Canyon Dr		
Base Volume Input [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	325	4	131	191	0	0	0	0	1	0	328
Total Analysis Volume [veh/h]	0	1299	16	524	765	1	0	0	0	5	1	1311
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	27	0	22	38	0	0	11	0	0	55	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0	30	30	18	48	48	0	51	51
g / C, Green / Cycle	0.00	0.26	0.26	0.16	0.42	0.42	0.00	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.00	0.26	0.01	0.15	0.21	0.00	0.00	0.00	0.47
s, saturation flow rate [veh/h]	1781	5094	1589	3459	3560	1589	1870	1795	2813
c, Capacity [veh/h]	1	1331	415	542	1486	664	1	794	1245
d1, Uniform Delay [s]	0.00	42.13	31.70	48.21	24.86	19.53	0.00	17.94	32.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	19.54	0.17	11.75	1.28	0.00	0.00	0.00	29.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.98	0.04	0.97	0.51	0.00	0.00	0.01	1.05
d, Delay for Lane Group [s/veh]	0.00	61.67	31.88	59.97	26.14	19.53	0.00	17.95	61.32
Lane Group LOS	A	E	C	E	C	B	A	B	F
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	13.53	0.33	7.96	7.37	0.02	0.00	0.08	20.43
50th-Percentile Queue Length [ft/ln]	0.00	338.17	8.23	199.09	184.31	0.38	0.00	2.09	510.83
95th-Percentile Queue Length [veh/ln]	0.00	19.56	0.59	12.59	11.83	0.03	0.00	0.15	28.91
95th-Percentile Queue Length [ft/ln]	0.00	488.97	14.82	314.79	295.64	0.69	0.00	3.77	722.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	61.67	31.88	59.97	26.14	19.53	0.00	0.00	0.00	17.95	17.95	61.32
Movement LOS	A	E	C	E	C	B	A	A	A	B	B	F
d_A, Approach Delay [s/veh]		61.30			39.87			0.00			61.12	
Approach LOS		E			D			A			E	
d_I, Intersection Delay [s/veh]	54.19											
Intersection LOS	D											
Intersection V/C	0.974											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	591	122	887
d_b, Bicycle Delay [s]	36.80	28.53	50.71	17.81
I_b,int, Bicycle LOS Score for Intersection	2.283	2.624	1.560	3.733
Bicycle LOS	B	B	A	D

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: SR-62 (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	600.00	100.00	100.00	568.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	65.00			65.00			30.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	344	43	7	280	1	1	2	4	78	4	67
Total Analysis Volume [veh/h]	8	1377	173	28	1121	2	4	9	16	313	14	269
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	30	0	11	30	0	0	11	0	0	18	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	34	34	3	36	36	3	3	14	14
g / C, Green / Cycle	0.02	0.48	0.48	0.04	0.51	0.51	0.04	0.04	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.00	0.39	0.11	0.02	0.31	0.00	0.01	0.01	0.18	0.17
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1842	1589	1785	1589
c, Capacity [veh/h]	29	1721	768	79	1820	813	82	71	357	318
d1, Uniform Delay [s]	34.15	15.28	10.52	32.61	12.25	8.40	32.30	32.40	27.52	27.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.02	4.00	0.68	2.72	1.57	0.01	0.89	1.60	9.45	6.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.80	0.23	0.36	0.62	0.00	0.16	0.23	0.92	0.85
d, Delay for Lane Group [s/veh]	39.16	19.29	11.20	35.33	13.82	8.41	33.19	34.00	36.96	33.20
Lane Group LOS	D	B	B	D	B	A	C	C	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	7.20	1.22	0.46	4.50	0.01	0.23	0.29	5.57	4.29
50th-Percentile Queue Length [ft/ln]	3.97	179.95	30.60	11.55	112.57	0.28	5.66	7.15	139.16	107.18
95th-Percentile Queue Length [veh/ln]	0.29	11.60	2.20	0.83	7.98	0.02	0.41	0.51	9.44	7.68
95th-Percentile Queue Length [ft/ln]	7.14	289.95	55.09	20.80	199.57	0.51	10.19	12.86	235.89	192.07

Movement, Approach, & Intersection Results

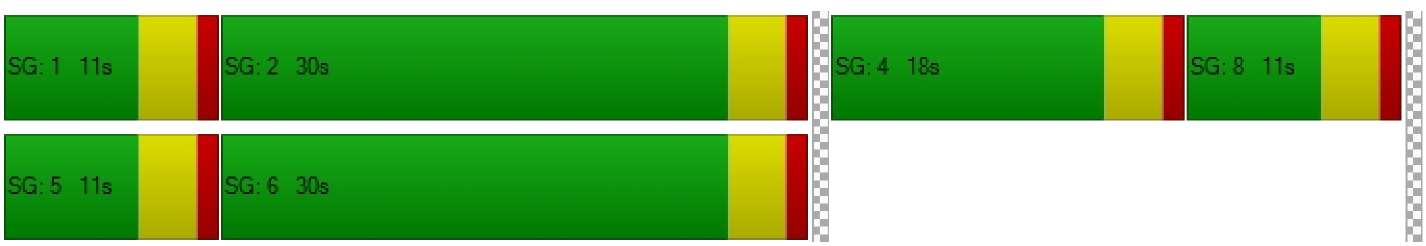
d_M, Delay for Movement [s/veh]	39.16	19.29	11.20	35.33	13.82	8.41	33.19	33.19	34.00	36.96	36.96	33.20
Movement LOS	D	B	B	D	B	A	C	C	C	D	D	C
d_A, Approach Delay [s/veh]	18.49			14.33			33.63			35.26		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	20.18											
Intersection LOS	C											
Intersection V/C	0.772											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	743	743	200	400
d_b, Bicycle Delay [s]	13.83	13.83	28.35	22.40
I_b,int, Bicycle LOS Score for Intersection	2.845	2.509	1.607	2.543
Bicycle LOS	C	B	A	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.668

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	1	0	0	0	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	258.00	103.00	100.00	100.00	100.00	100.00	100.00	160.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						Mission Lakes Blvd		
Base Volume Input [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	139	45	24	51	14	13	8	8	22	8	60
Total Analysis Volume [veh/h]	22	557	178	95	205	57	52	30	30	89	31	241
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	30	0	19	49	0	0	11	0	0	11	0
Vehicle Extension [s]	0.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No		No	No			No			No	
Maximum Recall		No		No	No			No			No	
Pedestrian Recall		No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	2.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	6	31	21	21	21
g / C, Green / Cycle	0.36	0.36	0.09	0.52	0.35	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.31	0.11	0.05	0.15	0.12	0.07	0.17
s, saturation flow rate [veh/h]	1848	1589	1781	1801	899	1342	1617
c, Capacity [veh/h]	721	566	169	932	402	281	565
d1, Uniform Delay [s]	18.07	14.03	26.04	8.19	14.83	14.63	15.31
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.25	0.31	2.93	0.16	1.72	2.94	2.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.31	0.56	0.28	0.28	0.32	0.48
d, Delay for Lane Group [s/veh]	20.33	14.35	28.97	8.36	16.55	17.57	18.23
Lane Group LOS	C	B	C	A	B	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.10	1.40	1.25	1.29	1.14	0.95	2.76
50th-Percentile Queue Length [ft/ln]	152.45	34.98	31.29	32.15	28.55	23.74	69.02
95th-Percentile Queue Length [veh/ln]	10.15	2.52	2.25	2.31	2.06	1.71	4.97
95th-Percentile Queue Length [ft/ln]	253.70	62.96	56.32	57.87	51.40	42.73	124.24

Movement, Approach, & Intersection Results

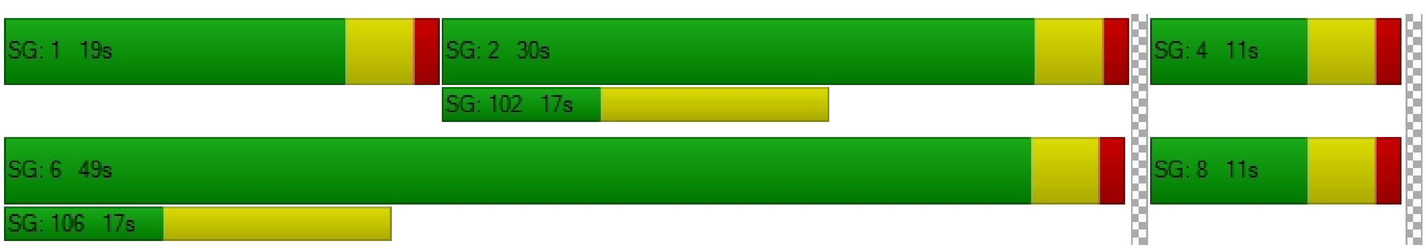
d_M, Delay for Movement [s/veh]	20.33	20.33	14.35	28.97	8.36	8.36	16.55	16.55	16.55	17.57	18.23	18.23
Movement LOS	C	C	B	C	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	18.92			13.84			16.55			18.06		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	17.42											
Intersection LOS	B											
Intersection V/C	0.668											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	20.01	20.01
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.832	2.378
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	1500	233	233
d_b, Bicycle Delay [s]	9.63	1.88	23.41	23.41
I_b,int, Bicycle LOS Score for Intersection	2.809	2.149	1.744	2.155
Bicycle LOS	C	B	A	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	180	62	13	80	13	22	48	18	52	93	18
Total Analysis Volume [veh/h]	195	720	248	52	318	52	88	190	73	208	373	72
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	39	0	0	39	0	0	31	0	0	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	26	26	26	26
g / C, Green / Cycle	0.52	0.52	0.52	0.52	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.19	0.39	0.16	0.34	0.28	0.15	0.19	0.24
s, saturation flow rate [veh/h]	1012	1870	1589	1245	364	1618	1116	1818
c, Capacity [veh/h]	237	973	827	705	229	592	343	665
d1, Uniform Delay [s]	22.88	13.10	9.55	11.35	28.17	16.65	26.51	18.65
k, delay calibration	0.50	0.50	0.50	0.50	0.19	0.11	0.11	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	26.62	5.06	0.93	3.73	2.40	0.48	1.74	1.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.74	0.30	0.60	0.44	0.42	0.61	0.67
d, Delay for Lane Group [s/veh]	49.50	18.16	10.48	15.08	30.57	17.13	28.25	20.13
Lane Group LOS	D	B	B	B	C	B	C	C
Critical Lane Group	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	4.50	7.58	1.77	3.64	1.60	2.53	3.10	5.31
50th-Percentile Queue Length [ft/ln]	112.43	189.49	44.33	91.02	40.09	63.31	77.46	132.68
95th-Percentile Queue Length [veh/ln]	7.98	12.09	3.19	6.55	2.89	4.56	5.58	9.09
95th-Percentile Queue Length [ft/ln]	199.38	302.36	79.79	163.84	72.17	113.96	139.43	227.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.50	18.16	10.48	15.08	15.08	15.08	30.57	18.09	17.13	28.25	20.13	20.13
Movement LOS	D	B	B	B	B	B	C	B	B	C	C	C
d_A, Approach Delay [s/veh]		21.78			15.08			21.02			22.71	
Approach LOS		C			B			C			C	
d_I, Intersection Delay [s/veh]						20.82						
Intersection LOS						C						
Intersection V/C						0.704						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
I_p,int, Pedestrian LOS Score for Intersection	3.212	2.990	2.782	2.731
Crosswalk LOS	C	C	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	1000	771	771
d_b, Bicycle Delay [s]	8.75	8.75	13.21	13.21
I_b,int, Bicycle LOS Score for Intersection	3.479	2.256	1.849	2.637
Bicycle LOS	C	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 14th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	39.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.021

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr						14th Ave		
Base Volume Input [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	375	7	12	150	4	4	19	2	10	38	21
Total Analysis Volume [veh/h]	10	1500	28	47	601	17	16	76	8	41	152	84
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	99	0	0	99	0	0	21	0	0	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C	C
C, Cycle Length [s]	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	95	95	95	17	17
g / C, Green / Cycle	0.79	0.79	0.79	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.83	0.14	0.33	0.06	0.16
s, saturation flow rate [veh/h]	1858	341	1861	1677	1739
c, Capacity [veh/h]	1501	60	1473	273	281
d1, Uniform Delay [s]	13.37	48.75	3.91	46.67	52.24
k, delay calibration	0.50	0.50	0.50	0.11	0.18
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	29.78	63.70	0.88	0.82	29.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.02	0.78	0.42	0.37	0.98
d, Delay for Lane Group [s/veh]	43.16	112.44	4.79	47.49	81.30
Lane Group LOS	F	F	A	D	F
Critical Lane Group	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	34.94	2.45	3.07	2.78	10.70
50th-Percentile Queue Length [ft/ln]	873.50	61.16	76.70	69.52	267.53
95th-Percentile Queue Length [veh/ln]	45.70	4.40	5.52	5.01	16.07
95th-Percentile Queue Length [ft/ln]	1142.41	110.08	138.05	125.13	401.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.16	43.16	43.16	112.44	4.79	4.79	47.49	47.49	47.49	81.30	81.30	81.30
Movement LOS	D	D	D	F	A	A	D	D	D	F	F	F
d_A, Approach Delay [s/veh]	43.16			12.40			47.49			81.30		
Approach LOS	D			B			D			F		
d_I, Intersection Delay [s/veh]	39.49											
Intersection LOS	D											
Intersection V/C	1.021											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
I_p,int, Pedestrian LOS Score for Intersection	3.154	3.146	1.879	2.004
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1583	1583	283	283
d_b, Bicycle Delay [s]	2.60	2.60	44.20	44.20
I_b,int, Bicycle LOS Score for Intersection	4.097	2.657	1.725	2.017
Bicycle LOS	D	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	33.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.769

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	353	120	10	131	13	14	103	26	81	102	26
Total Analysis Volume [veh/h]	182	1412	480	38	525	50	55	411	103	322	408	103
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	30	35	0	11	16	0	12	22	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	34	34	4	28	28	5	18	18	8	21	21
g / C, Green / Cycle	0.13	0.43	0.43	0.05	0.35	0.35	0.06	0.22	0.22	0.10	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.10	0.40	0.30	0.02	0.15	0.03	0.03	0.22	0.06	0.09	0.22	0.06
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	3459	1870	1589
c, Capacity [veh/h]	225	1520	679	89	1248	557	110	417	354	346	488	415
d1, Uniform Delay [s]	34.01	21.78	18.83	36.89	19.80	17.43	36.33	30.97	25.83	35.73	27.94	23.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15	0.11	0.11	0.14	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.74	11.42	6.13	3.19	1.04	0.32	3.45	20.74	0.45	11.06	5.05	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.93	0.71	0.43	0.42	0.09	0.50	0.99	0.29	0.93	0.84	0.25
d, Delay for Lane Group [s/veh]	40.74	33.20	24.96	40.08	20.84	17.74	39.78	51.71	26.28	46.79	32.99	23.67
Lane Group LOS	D	C	C	D	C	B	D	D	C	D	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.54	12.63	7.16	0.74	3.39	0.59	1.06	9.37	1.50	3.37	7.14	1.40
50th-Percentile Queue Length [ft/ln]	88.57	315.79	179.06	18.57	84.83	14.70	26.52	234.27	37.53	84.22	178.62	34.98
95th-Percentile Queue Length [veh/ln]	6.38	18.46	11.55	1.34	6.11	1.06	1.91	14.39	2.70	6.06	11.53	2.52
95th-Percentile Queue Length [ft/ln]	159.42	461.51	288.79	33.42	152.69	26.45	47.74	359.78	67.55	151.60	288.21	62.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.74	33.20	24.96	40.08	20.84	17.74	39.78	51.71	26.28	46.79	32.99	23.67
Movement LOS	D	C	C	D	C	B	D	D	C	D	C	C
d_A, Approach Delay [s/veh]	31.96			21.78			45.95			37.17		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	33.44											
Intersection LOS	C											
Intersection V/C	0.769											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	775	300	450	450
d_b, Bicycle Delay [s]	15.01	28.90	24.03	24.03
I_b,int, Bicycle LOS Score for Intersection	3.271	2.065	2.498	2.934
Bicycle LOS	C	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 8: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	39.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.970

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	158	488	2	2	282	29	15	0	87	124	36	70
Total Analysis Volume [veh/h]	631	1950	7	6	1126	115	59	1	347	497	144	281
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	47	66	0	12	31	0	11	11	11	21	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	41	69	69	1	29	29	6	7	52	17	18	18
g / C, Green / Cycle	0.37	0.63	0.63	0.01	0.26	0.26	0.05	0.06	0.47	0.15	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.35	0.55	0.00	0.00	0.23	0.23	0.03	0.00	0.22	0.14	0.12	0.13
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1783	1781	1870	1589	3459	1767	1589
c, Capacity [veh/h]	663	2231	996	20	945	473	95	116	748	535	288	259
d1, Uniform Delay [s]	33.56	16.96	7.70	53.98	38.67	38.68	50.97	48.43	19.71	45.91	43.87	44.41
k, delay calibration	0.40	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.13	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	21.27	5.13	0.01	8.17	11.12	19.80	6.35	0.03	0.56	7.66	3.83	5.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.87	0.01	0.30	0.87	0.88	0.62	0.01	0.46	0.93	0.75	0.81
d, Delay for Lane Group [s/veh]	54.83	22.09	7.72	62.15	49.79	58.48	57.32	48.46	20.27	53.57	47.70	50.39
Lane Group LOS	D	C	A	E	D	E	E	D	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	18.74	17.54	0.06	0.20	11.39	12.56	1.76	0.03	6.01	7.23	5.85	5.92
50th-Percentile Queue Length [ft/ln]	468.38	438.56	1.39	5.08	284.74	313.96	43.95	0.67	150.17	180.75	146.33	147.94
95th-Percentile Queue Length [veh/ln]	25.83	24.41	0.10	0.37	16.92	18.37	3.16	0.05	10.03	11.64	9.82	9.91
95th-Percentile Queue Length [ft/ln]	645.84	610.29	2.50	9.14	423.11	459.26	79.10	1.20	250.66	291.00	245.52	247.67

Movement, Approach, & Intersection Results

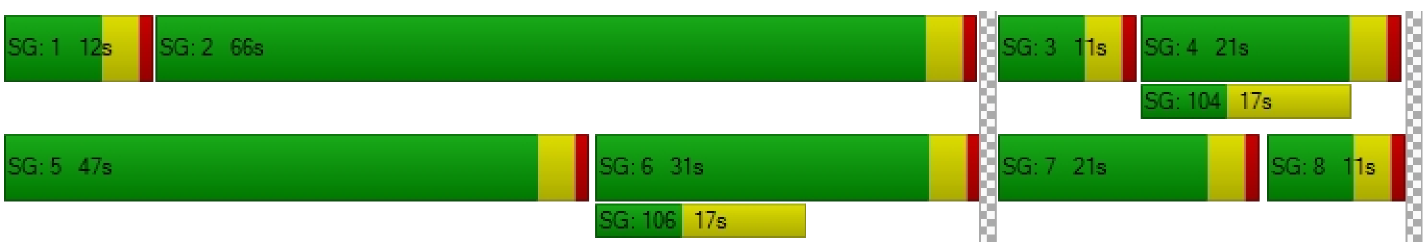
d_M, Delay for Movement [s/veh]	54.83	22.09	7.72	62.15	52.10	58.48	57.32	48.46	20.27	53.57	47.70	49.72
Movement LOS	D	C	A	E	D	E	E	D	C	D	D	D
d_A, Approach Delay [s/veh]		30.03			52.74			25.71			51.48	
Approach LOS		C			D			C			D	
d_I, Intersection Delay [s/veh]						39.00						
Intersection LOS						D						
Intersection V/C						0.970						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	44.55	44.55	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.525	2.457	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1127	491	127	309
d_b, Bicycle Delay [s]	10.47	31.31	48.22	39.31
I_b,int, Bicycle LOS Score for Intersection	3.695	2.245	2.231	3.081
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Little Morongo Rd (NS) at Mission Lakes Blvd/16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.872

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐├			┐│┌			┐│┌			┐│┌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	130.00	100.00	100.00	121.00	100.00	100.00	76.00	100.00	100.00
Speed [mph]	45.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Mission Lakes Blvd			16th St		
Base Volume Input [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	29	100	3	18	3	6	24	21	53	31	6
Total Analysis Volume [veh/h]	244	116	400	12	73	12	25	97	85	212	122	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	507	591	432	459	502	424	450	494	445	474	522
Degree of Utilization, x	0.48	0.87	0.03	0.16	0.02	0.06	0.22	0.17	0.48	0.26	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.58	9.97	0.09	0.56	0.07	0.19	0.81	0.62	2.52	1.02	0.14
95th-Percentile Queue Length [ft]	64.50	249.29	2.14	14.04	1.84	4.69	20.23	15.42	62.97	25.43	3.61
Approach Delay [s/veh]	30.17		11.69			12.18			15.71		
Approach LOS	D		B			B			C		
Intersection Delay [s/veh]	22.65										
Intersection LOS	C										

Intersection Level Of Service Report

Intersection 10: Little Morongo Rd (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.834

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	179	26	37	86	14	17	47	9	16	80	70
Total Analysis Volume [veh/h]	153	714	105	149	342	56	68	188	36	62	320	279
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	44	0	0	44	0	0	16	0	0	16	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	40	40	12	12	12	12	12	12
g / C, Green / Cycle	0.67	0.67	0.20	0.20	0.20	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.60	0.50	0.06	0.10	0.02	0.05	0.17	0.18
s, saturation flow rate [veh/h]	1613	1090	1059	1870	1589	1195	1870	1589
c, Capacity [veh/h]	1141	801	132	378	321	223	378	321
d1, Uniform Delay [s]	8.25	5.30	29.97	21.25	19.56	26.45	23.06	23.19
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.07	4.69	3.10	1.01	0.15	0.67	5.28	7.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.68	0.52	0.50	0.11	0.28	0.85	0.87
d, Delay for Lane Group [s/veh]	16.32	9.99	33.07	22.27	19.71	27.12	28.34	30.32
Lane Group LOS	B	A	C	C	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.77	2.61	1.02	2.10	0.36	0.79	4.23	3.86
50th-Percentile Queue Length [ft/ln]	144.28	65.24	25.48	52.46	9.12	19.78	105.82	96.53
95th-Percentile Queue Length [veh/ln]	9.71	4.70	1.83	3.78	0.66	1.42	7.61	6.95
95th-Percentile Queue Length [ft/ln]	242.77	117.42	45.87	94.42	16.41	35.60	190.18	173.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.32	16.32	16.32	9.99	9.99	9.99	33.07	22.27	19.71	27.12	28.34	30.32
Movement LOS	B	B	B	A	A	A	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	16.32			9.99			24.47			29.06		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	19.29											
Intersection LOS	B											
Intersection V/C	0.834											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1333	1333	400	400
d_b, Bicycle Delay [s]	3.33	3.33	19.20	19.20
I_b,int, Bicycle LOS Score for Intersection	3.163	2.462	2.041	2.650
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 11: Little Morongo Rd (NS) at 14th Ave/2 Bunch Palms (EW)

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			14th Ave			Two Bunch Palms Trail		
Base Volume Input [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	202	98	13	79	6	6	25	25	49	10	27
Total Analysis Volume [veh/h]	189	809	392	50	314	22	23	100	100	196	39	108
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	C	C	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17
g / C, Green / Cycle	0.58	0.58	0.58	0.58	0.29	0.29	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.18	0.43	0.25	0.30	0.13	0.17	0.02	0.07
s, saturation flow rate [veh/h]	1044	1870	1589	1296	1704	1182	1870	1589
c, Capacity [veh/h]	327	1076	915	813	563	287	545	463
d1, Uniform Delay [s]	14.81	9.54	7.18	7.49	17.30	21.67	15.40	16.17
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.27	4.86	1.47	1.98	0.45	2.86	0.06	0.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.75	0.43	0.47	0.40	0.68	0.07	0.23
d, Delay for Lane Group [s/veh]	22.08	14.40	8.65	9.47	17.75	24.53	15.45	16.43
Lane Group LOS	C	B	A	A	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.49	5.81	1.96	1.94	2.36	2.50	0.34	0.99
50th-Percentile Queue Length [ft/ln]	62.35	145.22	49.07	48.45	58.92	62.51	8.42	24.72
95th-Percentile Queue Length [veh/ln]	4.49	9.76	3.53	3.49	4.24	4.50	0.61	1.78
95th-Percentile Queue Length [ft/ln]	112.22	244.04	88.33	87.21	106.06	112.52	15.16	44.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.08	14.40	8.65	9.47	9.47	9.47	17.75	17.75	17.75	24.53	15.45	16.43
Movement LOS	C	B	A	A	A	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	13.82			9.47			17.75			20.95		
Approach LOS	B			A			B			C		
d_I, Intersection Delay [s/veh]	14.52											
Intersection LOS	B											
Intersection V/C	0.641											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	233	1500	1500
d_b, Bicycle Delay [s]	23.41	23.41	1.88	1.88
I_b,int, Bicycle LOS Score for Intersection	3.853	2.197	1.928	2.126
Bicycle LOS	D	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 12: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.777

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	80	39	43	39	59	116	121	24	24	102	82
Total Analysis Volume [veh/h]	168	319	155	171	157	234	464	484	95	97	408	328
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	21	0	0	21	0	13	33	0	11	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	17	17	17	17	9	30	6	27
g / C, Green / Cycle	0.26	0.26	0.26	0.26	0.26	0.26	0.14	0.46	0.09	0.41
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.10	0.16	0.08	0.15	0.13	0.32	0.05	0.42
s, saturation flow rate [veh/h]	1229	1870	1589	1060	1870	1589	3459	1817	1781	1734
c, Capacity [veh/h]	321	493	419	204	493	419	479	841	159	717
d1, Uniform Delay [s]	25.88	21.25	19.53	30.95	19.24	20.67	27.86	13.77	28.52	19.07
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.22	0.11	0.39
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.00	6.44	2.50	31.83	1.70	5.30	13.01	2.06	3.77	36.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.65	0.37	0.84	0.32	0.56	0.97	0.69	0.61	1.03
d, Delay for Lane Group [s/veh]	31.87	27.69	22.03	62.77	20.94	25.97	40.88	15.83	32.29	55.97
Lane Group LOS	C	C	C	E	C	C	D	B	C	F
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.89	4.89	2.08	4.20	1.83	3.17	3.96	5.29	1.44	15.35
50th-Percentile Queue Length [ft/ln]	72.24	122.34	52.06	105.09	45.64	79.17	98.92	132.29	36.03	383.74
95th-Percentile Queue Length [veh/ln]	5.20	8.52	3.75	7.57	3.29	5.70	7.12	9.06	2.59	22.18
95th-Percentile Queue Length [ft/ln]	130.04	213.04	93.72	189.15	82.14	142.50	178.06	226.60	64.85	554.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.87	27.69	22.03	62.77	20.94	25.97	40.88	15.83	15.83	32.29	55.97	55.97
Movement LOS	C	C	C	E	C	C	D	B	B	C	E	E
d_A, Approach Delay [s/veh]	27.42			35.76			26.97			53.21		
Approach LOS	C			D			C			D		
d_I, Intersection Delay [s/veh]	35.76											
Intersection LOS	D											
Intersection V/C	0.777											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	892	831
d_b, Bicycle Delay [s]	17.72	17.72	9.97	11.11
I_b,int, Bicycle LOS Score for Intersection	2.619	2.487	3.281	2.934
Bicycle LOS	B	B	C	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 13: Little Morongo Rd (NS) at 20th Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.728

Intersection Setup

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Varner Rd			Little Morongo Rd			20th Ave			20th Ave		
Base Volume Input [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	77	15	2	41	10	8	1	21	40	10	8
Total Analysis Volume [veh/h]	399	306	61	6	164	41	33	3	85	161	40	31
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	548	605	587	561	553
Degree of Utilization, x	0.73	0.61	0.36	0.22	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	6.06	4.06	1.63	0.81	2.06
95th-Percentile Queue Length [ft]	151.56	101.55	40.74	20.36	51.60
Approach Delay [s/veh]	21.28		12.55	11.19	14.14
Approach LOS	C		B	B	B
Intersection Delay [s/veh]	17.73				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 14: Palm Dr (NS) at 16th St (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	Palm Dr			Palm Dr			16th St			16th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			16th St			16th St		
Base Volume Input [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	5	14	0	2	1	1	9	41	10	8	0
Total Analysis Volume [veh/h]	246	19	57	1	7	4	2	36	165	39	30	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	613	670	771	589	673	631	723	581	691
Degree of Utilization, x	0.40	0.03	0.07	0.01	0.01	0.06	0.23	0.12	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.93	0.09	0.24	0.04	0.02	0.19	0.88	0.40	0.00
95th-Percentile Queue Length [ft]	48.28	2.19	5.97	1.03	0.45	4.80	21.93	10.04	0.11
Approach Delay [s/veh]	11.38			8.63		9.08		9.70	
Approach LOS	B			A		A		A	
Intersection Delay [s/veh]	10.36								
Intersection LOS	B								

Intersection Level Of Service Report

Intersection 15: Palm Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.502

Intersection Setup

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	92.00	100.00	100.00	76.00	100.00	100.00	138.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	150	17	7	92	17	15	29	44	19	39	11
Total Analysis Volume [veh/h]	187	601	66	26	369	66	61	115	177	75	157	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	32	32	3	26	26	5	10	10	5	10	10
g / C, Green / Cycle	0.12	0.49	0.49	0.04	0.40	0.40	0.07	0.15	0.15	0.08	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.18	0.01	0.12	0.12	0.03	0.06	0.11	0.04	0.05	0.06
s, saturation flow rate [veh/h]	1781	1870	1806	1781	1870	1773	1781	1870	1589	1781	1870	1733
c, Capacity [veh/h]	221	904	873	76	752	713	132	274	233	146	289	268
d1, Uniform Delay [s]	27.99	10.64	10.64	30.35	13.23	13.25	28.97	25.33	26.75	28.71	24.68	24.74
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.70	1.19	1.23	2.63	1.00	1.07	2.50	1.02	5.04	2.77	0.74	0.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.38	0.38	0.34	0.29	0.30	0.46	0.42	0.76	0.51	0.35	0.37
d, Delay for Lane Group [s/veh]	36.70	11.83	11.87	32.98	14.22	14.32	31.47	26.35	31.78	31.48	25.42	25.58
Lane Group LOS	D	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.20	2.87	2.78	0.43	2.14	2.07	0.95	1.59	2.78	1.17	1.38	1.34
50th-Percentile Queue Length [ft/ln]	79.93	71.64	69.48	10.78	53.47	51.83	23.86	39.76	69.61	29.27	34.52	33.46
95th-Percentile Queue Length [veh/ln]	5.75	5.16	5.00	0.78	3.85	3.73	1.72	2.86	5.01	2.11	2.49	2.41
95th-Percentile Queue Length [ft/ln]	143.87	128.95	125.07	19.40	96.24	93.30	42.95	71.56	125.30	52.69	62.13	60.23

Movement, Approach, & Intersection Results

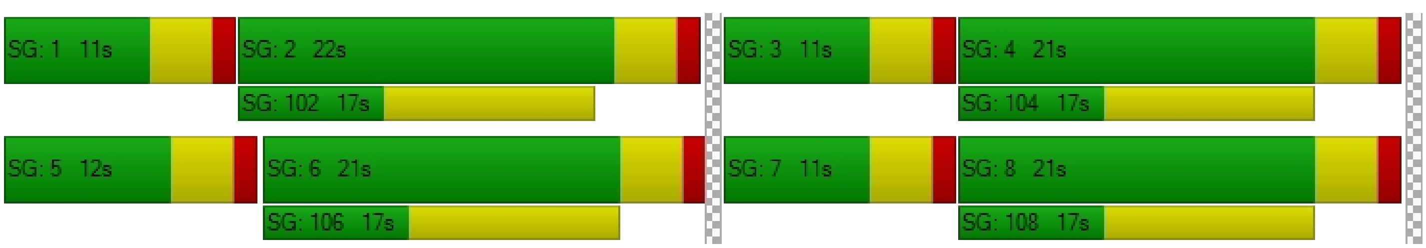
d_M, Delay for Movement [s/veh]	36.70	11.85	11.87	32.98	14.26	14.32	31.47	26.35	31.78	31.48	25.48	25.58
Movement LOS	D	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.29			15.33			29.96			27.13		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.52											
Intersection LOS	C											
Intersection V/C	0.502											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.617	2.547	2.580	2.392
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.264	1.940	1.851	1.787
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 16: Palm Dr (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.737

Intersection Setup

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	┐‖├			┐‖├			┐‖├			┐|┌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	70.00	100.00	100.00	85.00	100.00	100.00
Speed [mph]	35.00			35.00			45.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Hacienda Ave			Hacienda Ave		
Base Volume Input [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	242	21	45	149	12	12	35	21	47	54	31
Total Analysis Volume [veh/h]	117	968	82	178	595	49	49	141	84	187	214	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	12	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	27	27	7	28	28	4	7	7	8	11	11
g / C, Green / Cycle	0.10	0.42	0.42	0.11	0.43	0.43	0.06	0.11	0.11	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.07	0.28	0.28	0.10	0.17	0.17	0.03	0.06	0.07	0.11	0.11	0.08
s, saturation flow rate [veh/h]	1781	1870	1819	1781	1870	1820	1781	1870	1646	1781	1870	1589
c, Capacity [veh/h]	172	777	756	193	800	779	117	199	176	221	308	262
d1, Uniform Delay [s]	28.52	15.57	15.58	28.81	12.94	12.94	29.30	27.77	27.89	27.99	25.70	24.67
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.69	4.85	5.00	16.03	1.54	1.58	2.38	2.68	3.55	8.70	2.80	1.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.68	0.68	0.92	0.41	0.41	0.42	0.58	0.62	0.85	0.69	0.47
d, Delay for Lane Group [s/veh]	33.21	20.42	20.58	44.85	14.48	14.52	31.68	30.45	31.44	36.70	28.50	25.97
Lane Group LOS	C	C	C	D	B	B	C	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.88	6.58	6.44	3.44	3.20	3.12	0.75	1.71	1.64	3.15	3.08	1.66
50th-Percentile Queue Length [ft/ln]	47.08	164.61	161.12	85.94	79.89	78.06	18.76	42.71	41.08	78.74	77.09	41.59
95th-Percentile Queue Length [veh/ln]	3.39	10.79	10.61	6.19	5.75	5.62	1.35	3.08	2.96	5.67	5.55	2.99
95th-Percentile Queue Length [ft/ln]	84.75	269.82	265.20	154.70	143.80	140.51	33.78	76.88	73.94	141.74	138.75	74.86

Movement, Approach, & Intersection Results

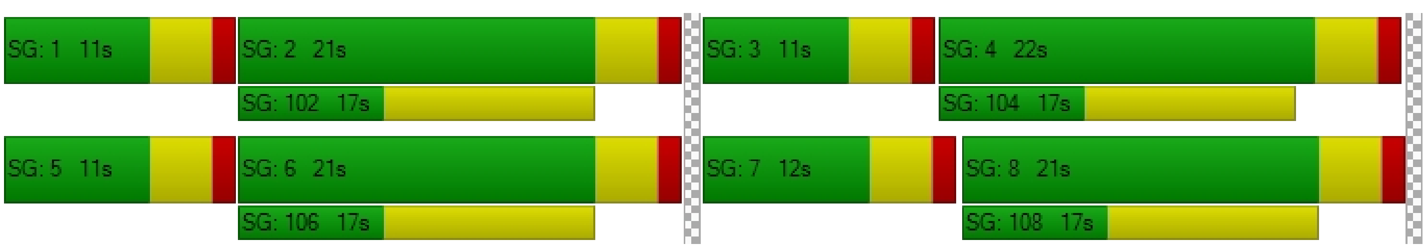
d_M, Delay for Movement [s/veh]	33.21	20.49	20.58	44.85	14.50	14.52	31.68	30.62	31.44	36.70	28.50	25.97
Movement LOS	C	C	C	D	B	B	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	21.77			21.07			31.06			30.83		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	24.18											
Intersection LOS	C											
Intersection V/C	0.737											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.820	2.728	2.352	2.522
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	554
d_b, Bicycle Delay [s]	17.72	17.72	17.72	16.99
I_b,int, Bicycle LOS Score for Intersection	2.522	2.238	1.786	2.424
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 17: Palm Dr (NS) at Two Bunch Palms Trail (EW)

Control Type:	Signalized	Delay (sec / veh):	48.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.021

Intersection Setup

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	96.00	100.00	100.00	101.00	100.00	100.00	95.00	100.00	100.00	70.00	100.00	130.00
Speed [mph]		40.00			35.00			40.00			35.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		No			No			No			No	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name	Palm Dr			Palm Dr			Two Bunch Palms Trail			Two Bunch Palms Trail		
Base Volume Input [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	278	82	52	181	6	28	97	63	87	58	35
Total Analysis Volume [veh/h]	223	1110	327	208	722	24	110	386	251	346	233	138
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	30	0	14	26	0	15	21	0	20	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	26	26	10	24	24	7	17	17	16	26	26
g / C, Green / Cycle	0.15	0.31	0.31	0.12	0.28	0.28	0.08	0.20	0.20	0.19	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.13	0.31	0.21	0.12	0.20	0.02	0.06	0.21	0.16	0.19	0.12	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	261	1094	489	210	992	443	141	371	315	335	575	489
d1, Uniform Delay [s]	35.42	29.45	25.69	37.47	27.75	22.46	38.44	34.09	32.45	34.52	23.28	22.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15	0.11	0.12	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.86	30.81	7.12	26.88	4.66	0.23	9.06	36.38	4.58	32.73	0.46	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	1.01	0.67	0.99	0.73	0.05	0.78	1.04	0.80	1.03	0.40	0.28
d, Delay for Lane Group [s/veh]	43.28	60.27	32.80	64.36	32.41	22.69	47.51	70.46	37.03	67.25	23.74	22.63
Lane Group LOS	D	F	C	E	C	C	D	F	D	F	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.86	14.98	6.33	5.74	6.95	0.37	2.51	10.96	5.04	9.68	3.59	2.04
50th-Percentile Queue Length [ft/ln]	121.48	374.54	158.33	143.54	173.84	9.21	62.84	274.00	126.10	242.09	89.80	51.00
95th-Percentile Queue Length [veh/ln]	8.47	21.52	10.46	9.67	11.28	0.66	4.52	16.73	8.73	15.02	6.47	3.67
95th-Percentile Queue Length [ft/ln]	211.85	538.07	261.51	241.78	281.96	16.57	113.11	418.15	218.19	375.50	161.63	91.81

Movement, Approach, & Intersection Results

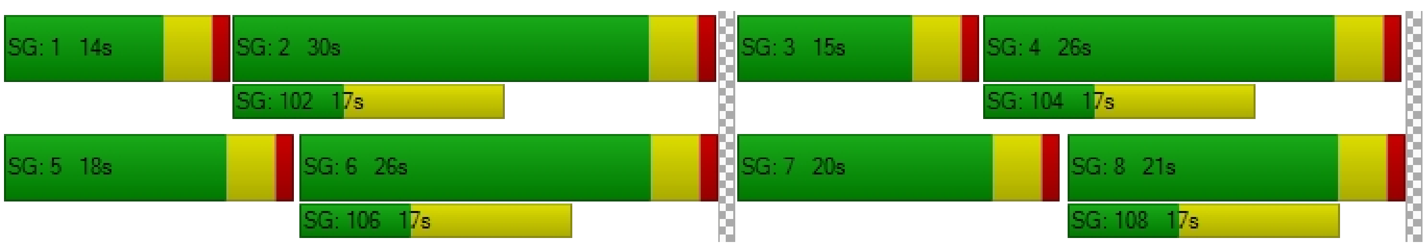
d_M, Delay for Movement [s/veh]	43.28	60.27	32.80	64.36	32.41	22.69	47.51	70.46	37.03	67.25	23.74	22.63
Movement LOS	D	F	C	E	C	C	D	F	D	F	C	C
d_A, Approach Delay [s/veh]	52.58			39.13			55.85			44.52		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	48.61											
Intersection LOS	D											
Intersection V/C	1.021											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	32.21	32.21	32.21
I_p,int, Pedestrian LOS Score for Intersection	3.144	2.888	2.715	2.593
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	612	518	400	518
d_b, Bicycle Delay [s]	20.48	23.35	27.20	23.35
I_b,int, Bicycle LOS Score for Intersection	2.929	2.347	2.792	2.743
Bicycle LOS	C	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Palm Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	48.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.003

Intersection Setup

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	155.00	100.00	155.00	140.00	100.00	140.00
Speed [mph]	60.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	110	408	124	33	194	46	49	105	49	61	97	48
Total Analysis Volume [veh/h]	440	1633	497	133	774	183	196	420	194	242	387	191
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	37	51	0	12	26	0	16	30	30	12	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	47	47	8	39	39	12	26	47	8	22	22
g / C, Green / Cycle	0.16	0.45	0.45	0.08	0.37	0.37	0.11	0.25	0.44	0.08	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.13	0.46	0.31	0.07	0.22	0.12	0.11	0.22	0.12	0.07	0.21	0.12
s, saturation flow rate [veh/h]	3459	3560	1589	1781	3560	1589	1781	1870	1589	3459	1870	1589
c, Capacity [veh/h]	546	1598	713	136	1307	584	204	461	703	264	389	331
d1, Uniform Delay [s]	42.67	28.95	23.22	48.42	26.87	23.76	46.28	38.46	18.60	48.17	41.50	37.41
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.29	0.11	0.11	0.25	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.86	28.27	5.57	31.10	1.98	1.40	21.52	16.70	0.21	12.29	30.66	1.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	1.02	0.70	0.98	0.59	0.31	0.96	0.91	0.28	0.92	0.99	0.58
d, Delay for Lane Group [s/veh]	45.53	57.22	28.79	79.52	28.85	25.17	67.80	55.17	18.81	60.46	72.16	39.00
Lane Group LOS	D	F	C	E	C	C	E	E	B	E	E	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.34	23.44	9.67	4.47	7.51	3.22	6.02	11.86	2.74	3.43	12.62	4.28
50th-Percentile Queue Length [ft/ln]	133.46	585.98	241.74	111.72	187.66	80.41	150.54	296.44	68.59	85.82	315.40	107.07
95th-Percentile Queue Length [veh/ln]	9.13	31.90	14.77	7.94	12.00	5.79	10.05	17.50	4.94	6.18	18.44	7.68
95th-Percentile Queue Length [ft/ln]	228.19	797.61	369.23	198.39	299.99	144.74	251.15	437.62	123.47	154.48	461.03	191.92

Movement, Approach, & Intersection Results

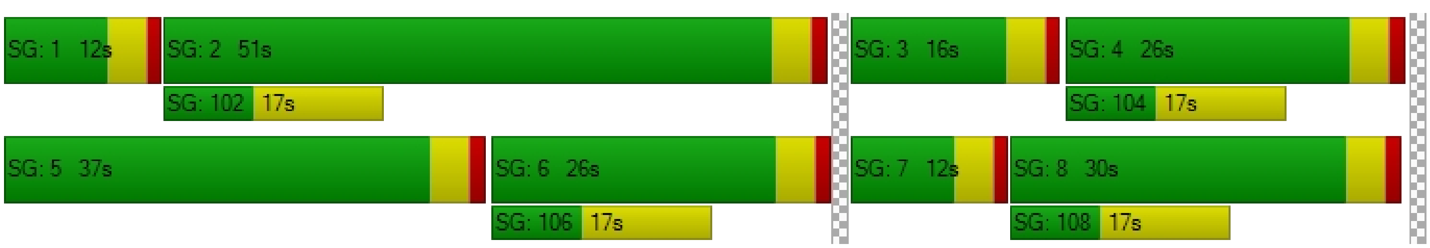
d_M, Delay for Movement [s/veh]	45.53	57.22	28.79	79.52	28.85	25.17	67.80	55.17	18.81	60.46	72.16	39.00
Movement LOS	D	F	C	E	C	C	E	E	B	E	E	D
d_A, Approach Delay [s/veh]		49.72			34.41			49.52			60.98	
Approach LOS		D			C			D			E	
d_I, Intersection Delay [s/veh]	48.28											
Intersection LOS	D											
Intersection V/C	1.003											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	3.675	3.395	2.958	2.976
Crosswalk LOS	D	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	895	419	495	419
d_b, Bicycle Delay [s]	16.02	32.80	29.72	32.80
I_b,int, Bicycle LOS Score for Intersection	3.680	2.459	2.896	2.913
Bicycle LOS	D	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 19: Palm Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.970

Intersection Setup

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	197.00	100.00	100.00	200.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Palm Dr			Palm Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	675	101	10	283	19	8	12	5	34	16	10
Total Analysis Volume [veh/h]	111	2699	402	40	1133	74	30	48	21	136	65	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	58	0	0	58	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	54	54	54	54	54	54	8	8
g / C, Green / Cycle	0.77	0.77	0.77	0.77	0.77	0.77	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.22	0.76	0.25	0.37	0.22	0.05	0.06	0.16
s, saturation flow rate [veh/h]	497	3560	1589	108	5094	1589	1741	1544
c, Capacity [veh/h]	433	2738	1222	104	3917	1222	270	261
d1, Uniform Delay [s]	5.09	7.72	2.50	34.99	2.40	1.96	28.89	31.91
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.43	14.19	0.72	10.54	0.19	0.09	0.83	13.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.99	0.33	0.39	0.29	0.06	0.37	0.93
d, Delay for Lane Group [s/veh]	6.51	21.91	3.22	45.52	2.59	2.05	29.72	45.54
Lane Group LOS	A	C	A	D	A	A	C	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	6.62	0.36	0.91	0.17	0.05	1.49	4.90
50th-Percentile Queue Length [ft/ln]	12.36	165.49	9.06	22.77	4.36	1.23	37.27	122.54
95th-Percentile Queue Length [veh/ln]	0.89	10.84	0.65	1.64	0.31	0.09	2.68	8.53
95th-Percentile Queue Length [ft/ln]	22.25	270.97	16.31	40.99	7.84	2.22	67.08	213.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.51	21.91	3.22	45.52	2.59	2.05	29.72	29.72	29.72	45.54	45.54	45.54
Movement LOS	A	C	A	D	A	A	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	19.04			3.94			29.72			45.54		
Approach LOS	B			A			C			D		
d_I, Intersection Delay [s/veh]	16.67											
Intersection LOS	B											
Intersection V/C	0.970											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1543	1543	229	229
d_b, Bicycle Delay [s]	1.83	1.83	27.46	27.46
I_b,int, Bicycle LOS Score for Intersection	4.210	2.245	1.723	1.959
Bicycle LOS	D	B	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 20: Palm Dr (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	43.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.981

Intersection Setup

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	173.00	100.00	100.00	195.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	60.00			60.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Palm Dr			Palm Dr			Varner Rd			Varner Rd		
Base Volume Input [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	743	35	24	286	29	28	59	16	53	139	75
Total Analysis Volume [veh/h]	98	2970	141	94	1144	117	110	235	64	212	554	300
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	15	62	0	11	58	0	11	20	0	12	21	21
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No		No	No		No	No	No
Maximum Recall	No	No		No	No		No	No		No	No	No
Pedestrian Recall	No	No		No	No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	58	58	7	58	58	7	16	16	8	17	90
g / C, Green / Cycle	0.07	0.55	0.55	0.07	0.55	0.55	0.07	0.15	0.15	0.08	0.16	0.85
(v / s)_i Volume / Saturation Flow Rate	0.06	0.58	0.09	0.05	0.22	0.07	0.08	0.13	0.04	0.06	0.16	0.19
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1417	1870	1589	3459	3560	1589
c, Capacity [veh/h]	124	2820	880	119	2805	875	137	283	240	264	572	1358
d1, Uniform Delay [s]	48.10	23.44	11.48	48.30	13.67	11.44	50.94	43.28	39.42	47.73	43.81	1.37
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.68	33.06	0.39	11.18	0.44	0.32	10.41	6.28	0.59	5.67	11.56	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	1.05	0.16	0.79	0.41	0.13	0.80	0.83	0.27	0.80	0.97	0.22
d, Delay for Lane Group [s/veh]	58.78	56.49	11.87	59.48	14.11	11.76	61.34	49.55	40.01	53.39	55.37	1.53
Lane Group LOS	E	F	B	E	B	B	E	D	D	D	E	A
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.74	27.13	1.45	2.65	4.48	1.20	3.23	6.06	1.42	2.80	7.62	0.14
50th-Percentile Queue Length [ft/ln]	68.54	678.35	36.36	66.22	111.93	29.94	80.68	151.57	35.53	69.91	190.62	3.54
95th-Percentile Queue Length [veh/ln]	4.93	37.20	2.62	4.77	7.95	2.16	5.81	10.10	2.56	5.03	12.15	0.25
95th-Percentile Queue Length [ft/ln]	123.37	929.92	65.45	119.20	198.68	53.89	145.23	252.52	63.95	125.83	303.84	6.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.78	56.49	11.87	59.48	14.11	11.76	61.34	49.55	40.01	53.39	55.37	1.53
Movement LOS	E	F	B	E	B	B	E	D	D	D	E	A
d_A, Approach Delay [s/veh]		54.60			17.06			51.23			39.82	
Approach LOS		D			B			D			D	
d_I, Intersection Delay [s/veh]	43.34											
Intersection LOS	D											
Intersection V/C	0.981											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	42.08	42.08
I_p,int, Pedestrian LOS Score for Intersection	0.000	4.043	2.728	2.918
Crosswalk LOS	F	D	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1105	1029	305	324
d_b, Bicycle Delay [s]	10.52	12.39	37.72	36.88
I_b,int, Bicycle LOS Score for Intersection	3.325	2.305	2.234	2.439
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Mountain View Rd (NS) at Hacienda Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.813

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	40.00	100.00	100.00	100.00	60.00	100.00	100.00
Speed [mph]	25.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Hacienda Ave			Long Canyon Rd		
Base Volume Input [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	64	17	35	24	10	6	66	33	14	84	75
Total Analysis Volume [veh/h]	178	255	69	138	94	38	25	263	133	54	336	300
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	13	21	0	13	21	0	11	30	0	11	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	20	7	18	18	3	27	5	29
g / C, Green / Cycle	0.12	0.26	0.10	0.24	0.24	0.04	0.36	0.06	0.39
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.08	0.05	0.02	0.01	0.22	0.03	0.37
s, saturation flow rate [veh/h]	1781	1802	1781	1870	1589	1781	1765	1781	1726
c, Capacity [veh/h]	214	475	173	451	383	68	640	113	669
d1, Uniform Delay [s]	32.27	24.78	33.13	22.75	22.13	35.20	19.66	33.95	22.28
k, delay calibration	0.11	0.50	0.11	0.50	0.50	0.11	0.13	0.11	0.39
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.16	7.68	8.07	1.05	0.52	3.32	1.16	3.15	20.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.68	0.80	0.21	0.10	0.37	0.62	0.48	0.95
d, Delay for Lane Group [s/veh]	40.43	32.47	41.20	23.80	22.65	38.52	20.82	37.10	43.13
Lane Group LOS	D	C	D	C	C	D	C	D	D
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.59	6.03	2.74	1.39	0.55	0.49	5.28	1.00	13.36
50th-Percentile Queue Length [ft/ln]	89.63	150.66	68.42	34.73	13.74	12.15	132.01	24.99	333.89
95th-Percentile Queue Length [veh/ln]	6.45	10.05	4.93	2.50	0.99	0.87	9.05	1.80	19.35
95th-Percentile Queue Length [ft/ln]	161.33	251.31	123.16	62.52	24.74	21.87	226.22	44.98	483.73

Movement, Approach, & Intersection Results

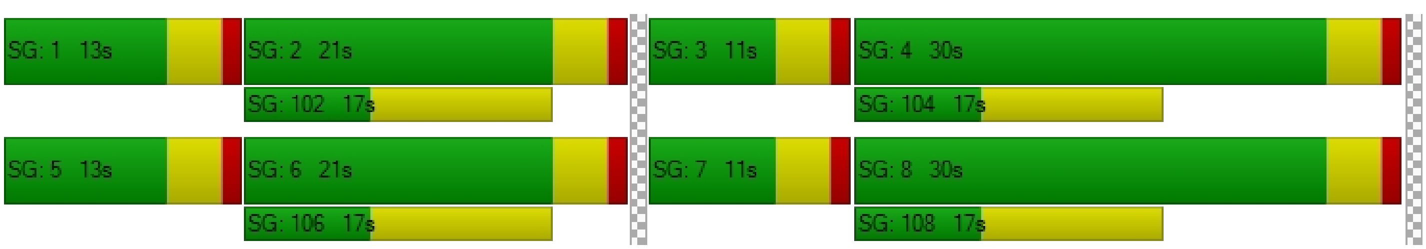
d_M, Delay for Movement [s/veh]	40.43	32.47	32.47	41.20	23.80	22.65	38.52	20.82	20.82	37.10	43.13	43.13
Movement LOS	D	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	35.29			32.53			21.87			42.66		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	34.60											
Intersection LOS	C											
Intersection V/C	0.813											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	27.31	27.31	27.31	27.31
I_p,int, Pedestrian LOS Score for Intersection	2.142	2.363	2.437	2.498
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	453	453	693	693
d_b, Bicycle Delay [s]	22.43	22.43	16.01	16.01
I_b,int, Bicycle LOS Score for Intersection	2.388	2.005	2.254	2.698
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Mountain View Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.648

Intersection Setup

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00	150.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Mountain View Rd			Mountain View Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	72	58	6	41	14	22	51	16	24	40	3
Total Analysis Volume [veh/h]	130	286	231	22	165	56	86	204	65	97	158	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	22	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	29	2	25	6	12	6	12
g / C, Green / Cycle	0.10	0.45	0.04	0.39	0.09	0.18	0.09	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.30	0.01	0.12	0.05	0.15	0.03	0.09
s, saturation flow rate [veh/h]	1781	1733	1781	1790	1781	1794	3459	1845
c, Capacity [veh/h]	177	772	67	687	155	325	315	341
d1, Uniform Delay [s]	28.56	14.31	30.61	14.14	28.59	25.76	27.75	23.89
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.82	4.59	2.81	1.24	3.09	5.42	0.55	1.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.67	0.33	0.32	0.56	0.83	0.31	0.50
d, Delay for Lane Group [s/veh]	34.39	18.90	33.41	15.38	31.68	31.17	28.30	25.03
Lane Group LOS	C	B	C	B	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.01	5.39	0.35	2.03	1.26	3.91	0.64	2.13
50th-Percentile Queue Length [ft/ln]	50.25	134.69	8.78	50.64	31.60	97.73	16.12	53.29
95th-Percentile Queue Length [veh/ln]	3.62	9.19	0.63	3.65	2.28	7.04	1.16	3.84
95th-Percentile Queue Length [ft/ln]	90.44	229.86	15.80	91.15	56.88	175.92	29.02	95.91

Movement, Approach, & Intersection Results

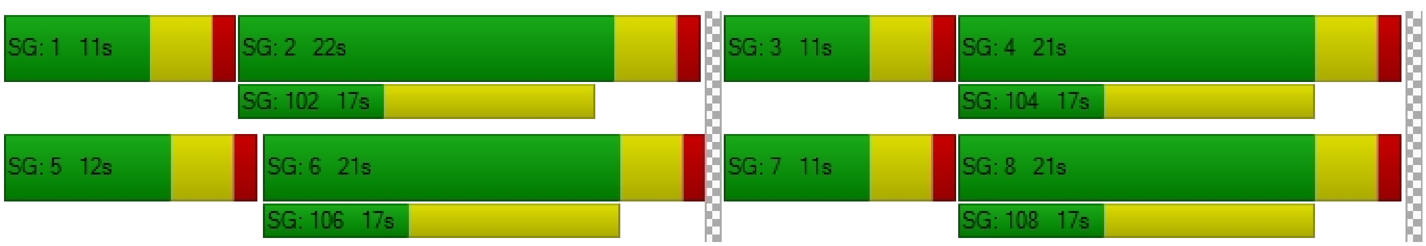
d_M, Delay for Movement [s/veh]	34.39	18.90	18.90	33.41	15.38	15.38	31.68	31.17	31.17	28.30	25.03	25.03
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	22.01			17.02			31.30			26.22		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	24.13											
Intersection LOS	C											
Intersection V/C	0.648											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
I_p,int, Pedestrian LOS Score for Intersection	2.548	2.296	2.425	2.541
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	554	523	523	523
d_b, Bicycle Delay [s]	16.99	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	2.627	1.961	2.145	2.002
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 23: Mountain View Rd (NS) at Varner Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	46.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.032

Intersection Setup

Name	Mountain View Rd		Varner Rd		Varner Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	50.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Mountain View Rd		Varner Rd		Varner Rd	
Base Volume Input [veh/h]	426	171	162	434	799	1178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	426	171	162	434	799	1178
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	43	41	109	200	295
Total Analysis Volume [veh/h]	426	171	162	434	799	1178
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	0	8	4	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	-	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	22	0	0	58	58	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	C	R
C, Cycle Length [s]	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	54	54	54
g / C, Green / Cycle	0.23	0.23	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.24	0.11	0.64	0.43	0.74
s, saturation flow rate [veh/h]	1781	1589	929	1870	1589
c, Capacity [veh/h]	403	360	683	1259	1070
d1, Uniform Delay [s]	30.91	26.79	16.04	7.44	13.05
k, delay calibration	0.18	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	43.46	0.97	14.42	2.44	59.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.06	0.48	0.87	0.63	1.10
d, Delay for Lane Group [s/veh]	74.37	27.77	30.46	9.88	72.29
Lane Group LOS	F	C	C	A	F
Critical Lane Group	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	11.73	2.62	10.84	5.34	28.15
50th-Percentile Queue Length [ft/ln]	293.36	65.55	270.99	133.47	703.86
95th-Percentile Queue Length [veh/ln]	17.87	4.72	16.24	9.13	39.90
95th-Percentile Queue Length [ft/ln]	446.78	117.99	405.98	228.20	997.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	74.37	27.77	30.46	30.46	9.88	72.29
Movement LOS	F	C	C	C	A	F
d_A, Approach Delay [s/veh]	61.02		30.46		47.07	
Approach LOS	E		C		D	
d_I, Intersection Delay [s/veh]	46.57					
Intersection LOS	D					
Intersection V/C	1.032					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	40.00	40.00	40.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.116	7.394
Bicycle LOS	D	F	F

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 24: Long Canyon Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	20.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Long Canyon Rd			Long Canyon Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	10	46	32	5	6	9	139	10	15	85	22
Total Analysis Volume [veh/h]	92	39	184	129	21	25	34	557	38	61	340	88
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	435	494	424	469	446	475	480	433	461	505
Degree of Utilization, x	0.30	0.37	0.30	0.10	0.08	0.63	0.62	0.14	0.74	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.25	1.71	1.27	0.32	0.25	4.23	4.14	0.49	6.04	0.63
95th-Percentile Queue Length [ft]	31.31	42.69	31.68	8.11	6.17	105.79	103.41	12.17	151.06	15.63
Approach Delay [s/veh]	14.37		13.89		21.35			24.10		
Approach LOS	B		B		C			C		
Intersection Delay [s/veh]	20.01									
Intersection LOS	C									

Intersection Level Of Service Report
Intersection 101: SR-62 SB (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.946

Intersection Setup

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	63.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			65.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	SR-62			SR-62			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	303	1256	99	20	754	0	0	320	266	161	770	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	303	1256	99	20	754	0	0	320	266	161	770	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	314	25	5	189	0	0	80	67	40	193	21
Total Analysis Volume [veh/h]	303	1256	99	20	754	0	0	320	266	161	770	84
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	33	0	0	33	0	0	37	0	0	37	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	29	33	33	33	33
g / C, Green / Cycle	0.42	0.42	0.42	0.42	0.42	0.42	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.43	0.35	0.06	0.05	0.21	0.00	0.18	0.17	0.15	0.46
s, saturation flow rate [veh/h]	709	3560	1589	442	3560	1589	1765	1589	1059	1838
c, Capacity [veh/h]	268	1481	661	136	1481	661	880	746	146	863
d1, Uniform Delay [s]	29.92	18.42	12.71	31.41	15.12	0.00	11.89	11.80	34.52	18.36
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.44
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	94.29	6.22	0.48	2.29	1.25	0.00	0.25	0.29	66.49	26.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.13	0.85	0.15	0.15	0.51	0.00	0.36	0.36	1.10	0.99
d, Delay for Lane Group [s/veh]	124.21	24.64	13.19	33.70	16.37	0.00	12.14	12.09	101.02	44.76
Lane Group LOS	F	C	B	C	B	A	B	B	F	D
Critical Lane Group	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	11.47	9.51	0.98	0.37	3.55	0.00	2.92	2.42	5.11	18.14
50th-Percentile Queue Length [ft/ln]	286.68	237.66	24.58	9.24	88.78	0.00	72.98	60.61	127.71	453.46
95th-Percentile Queue Length [veh/ln]	18.34	14.56	1.77	0.67	6.39	0.00	5.25	4.36	9.19	25.12
95th-Percentile Queue Length [ft/ln]	458.52	364.08	44.24	16.63	159.80	0.00	131.37	109.10	229.87	628.08

Movement, Approach, & Intersection Results

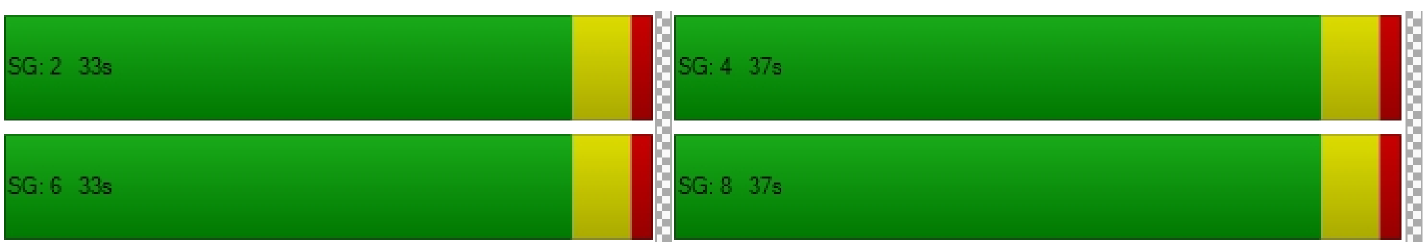
d_M, Delay for Movement [s/veh]	124.21	24.64	13.19	33.70	16.37	0.00	12.14	12.14	12.09	101.02	44.76	44.76
Movement LOS	F	C	B	C	B	A	B	B	B	F	D	D
d_A, Approach Delay [s/veh]	42.15			16.82			12.12			53.69		
Approach LOS	D			B			B			D		
d_I, Intersection Delay [s/veh]	35.83											
Intersection LOS	D											
Intersection V/C	0.946											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	829	829	943	943
d_b, Bicycle Delay [s]	12.01	12.01	9.78	9.78
I_b,int, Bicycle LOS Score for Intersection	2.927	2.198	2.527	3.234
Bicycle LOS	C	B	B	C

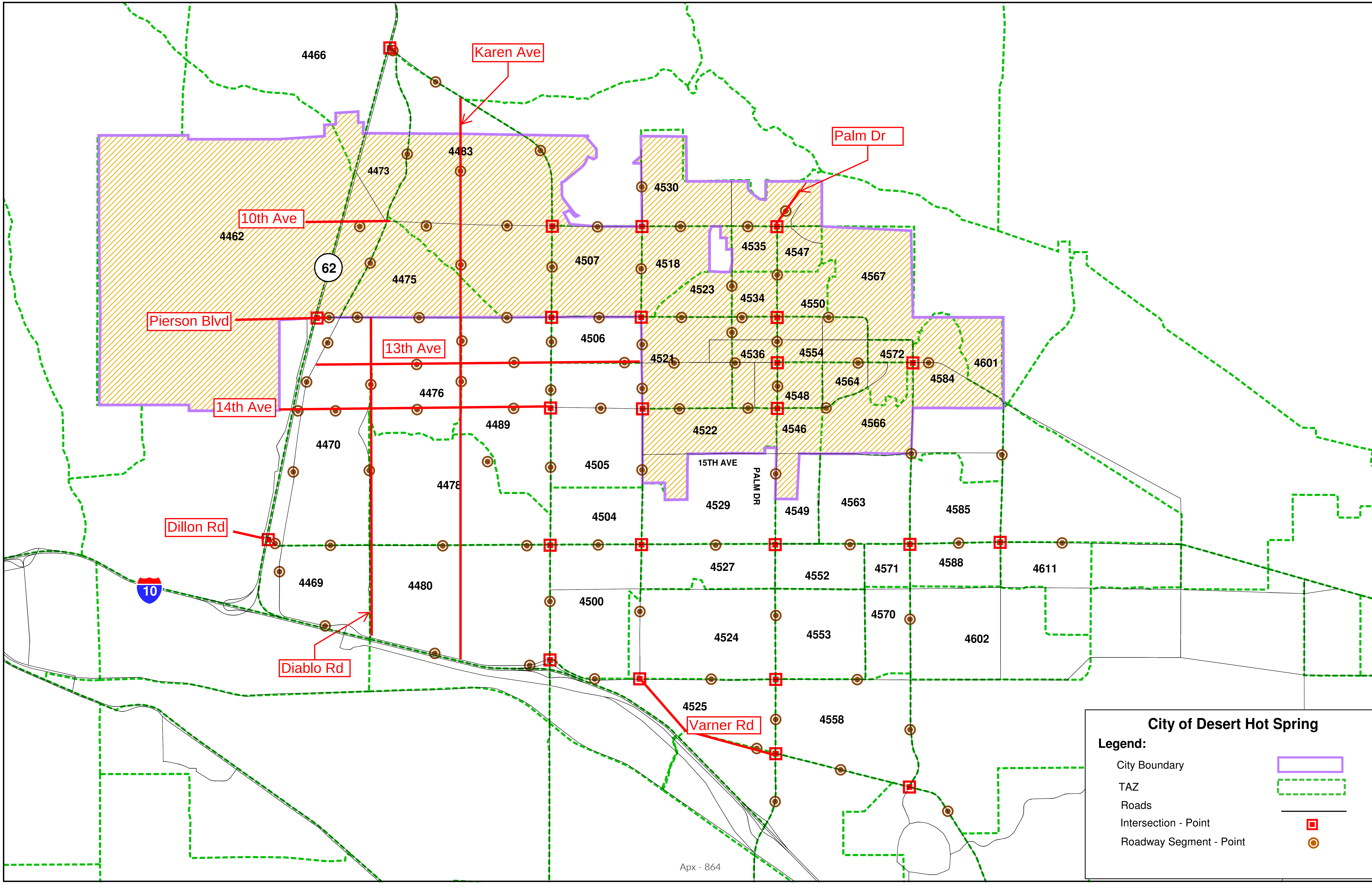
Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

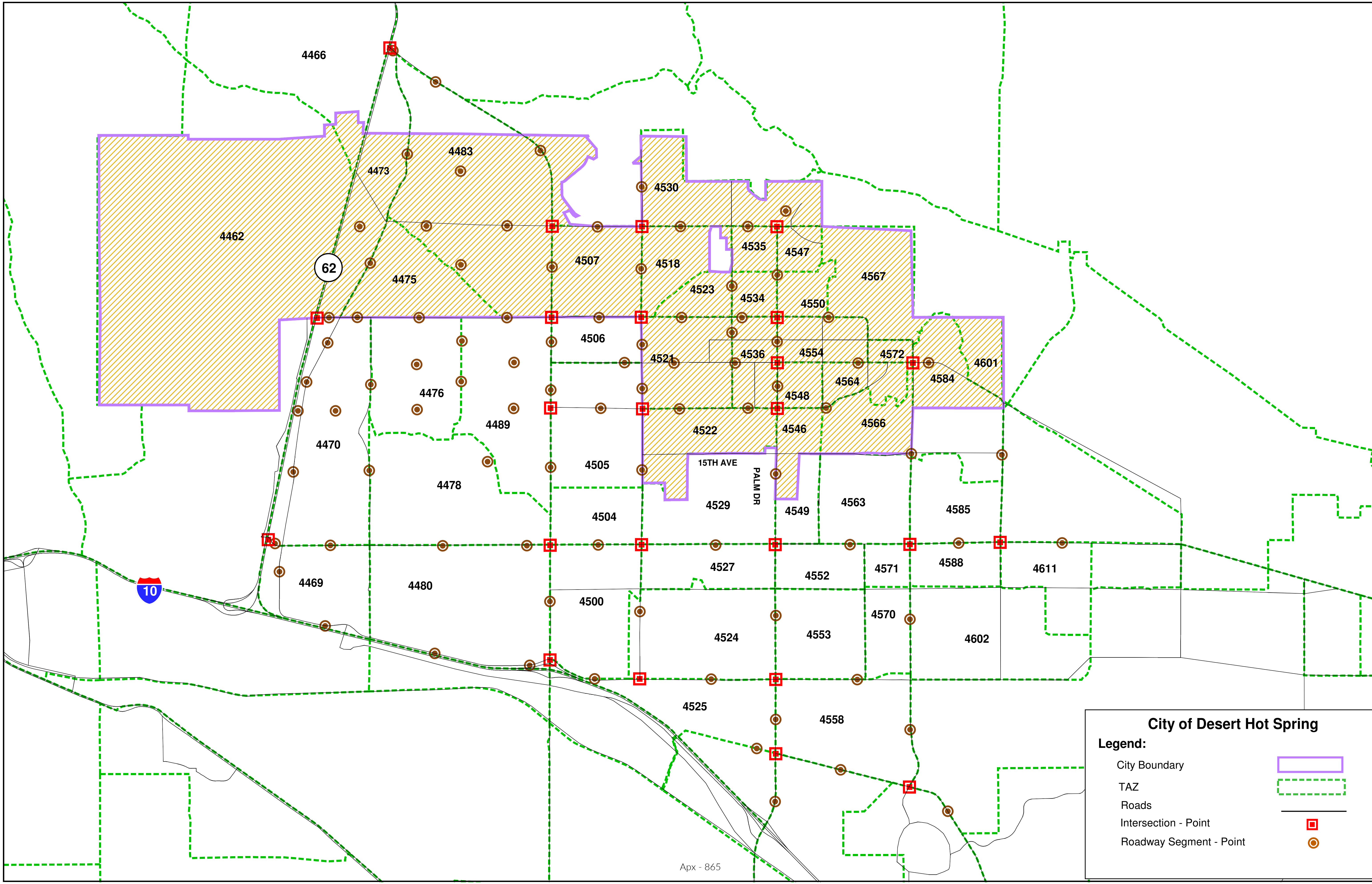


APPENDIX D

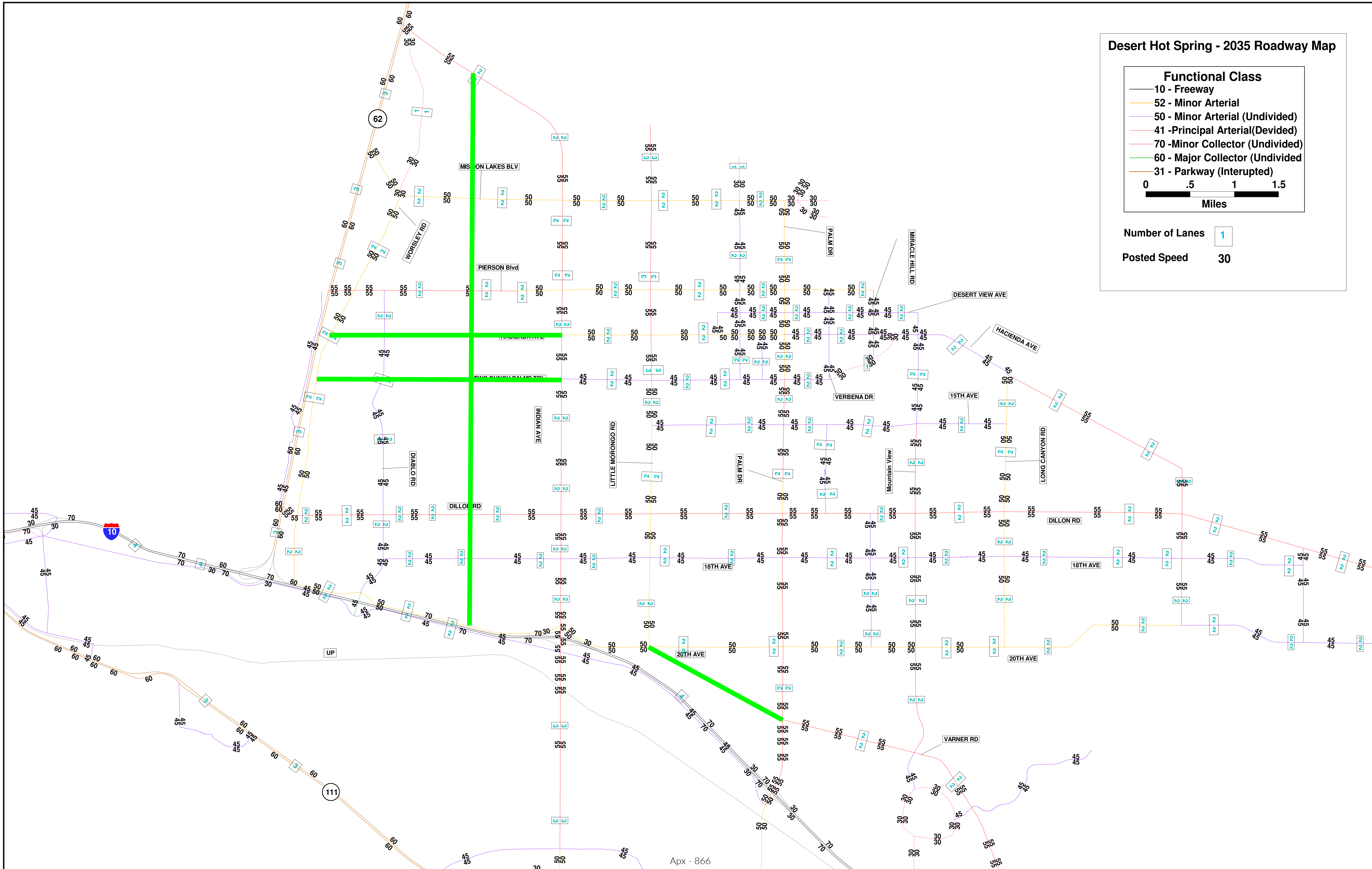
SOCIO-ECONOMIC DATA & ROADWAY ATTRIBUTE MODEL INPUTS

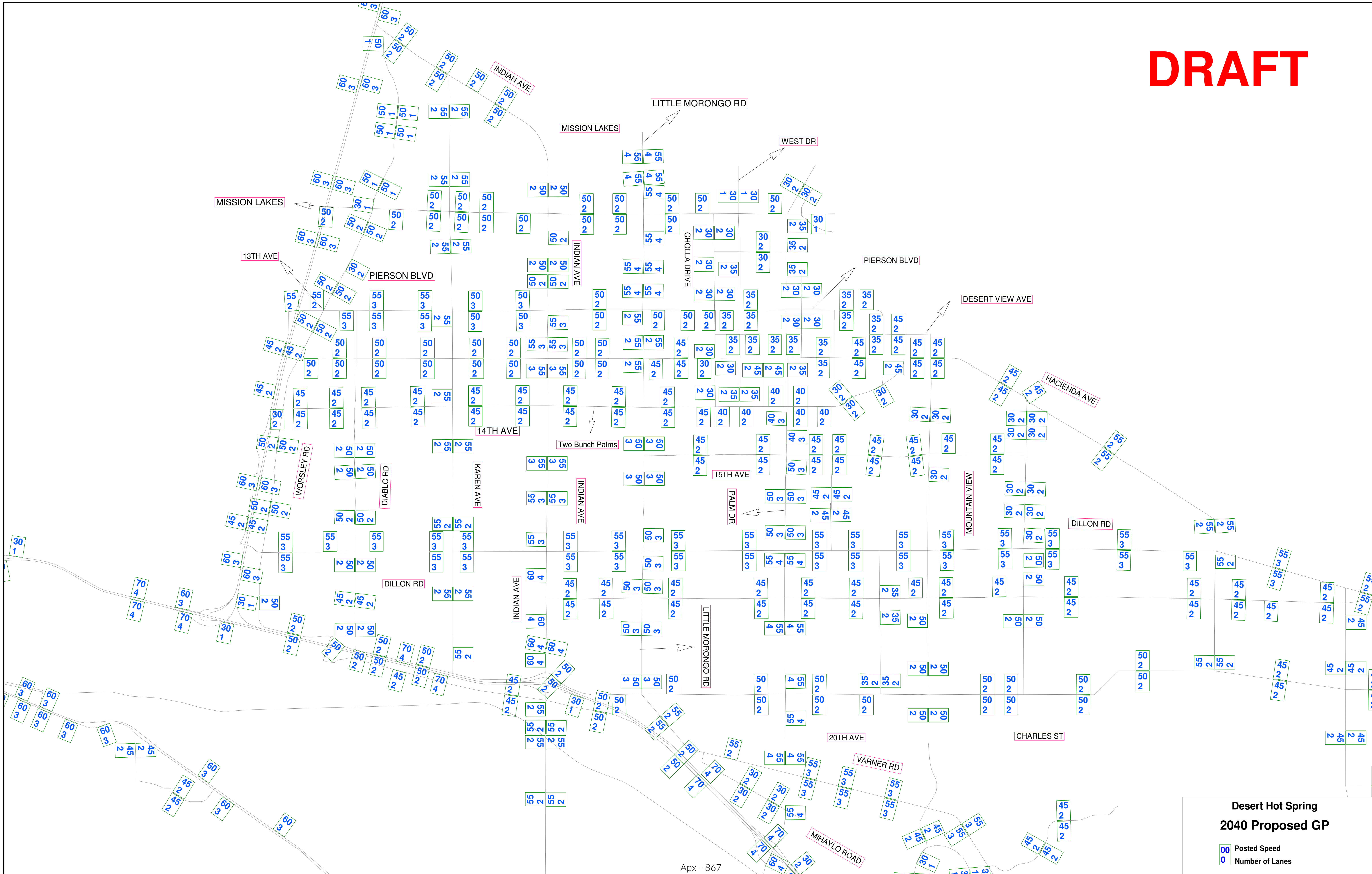


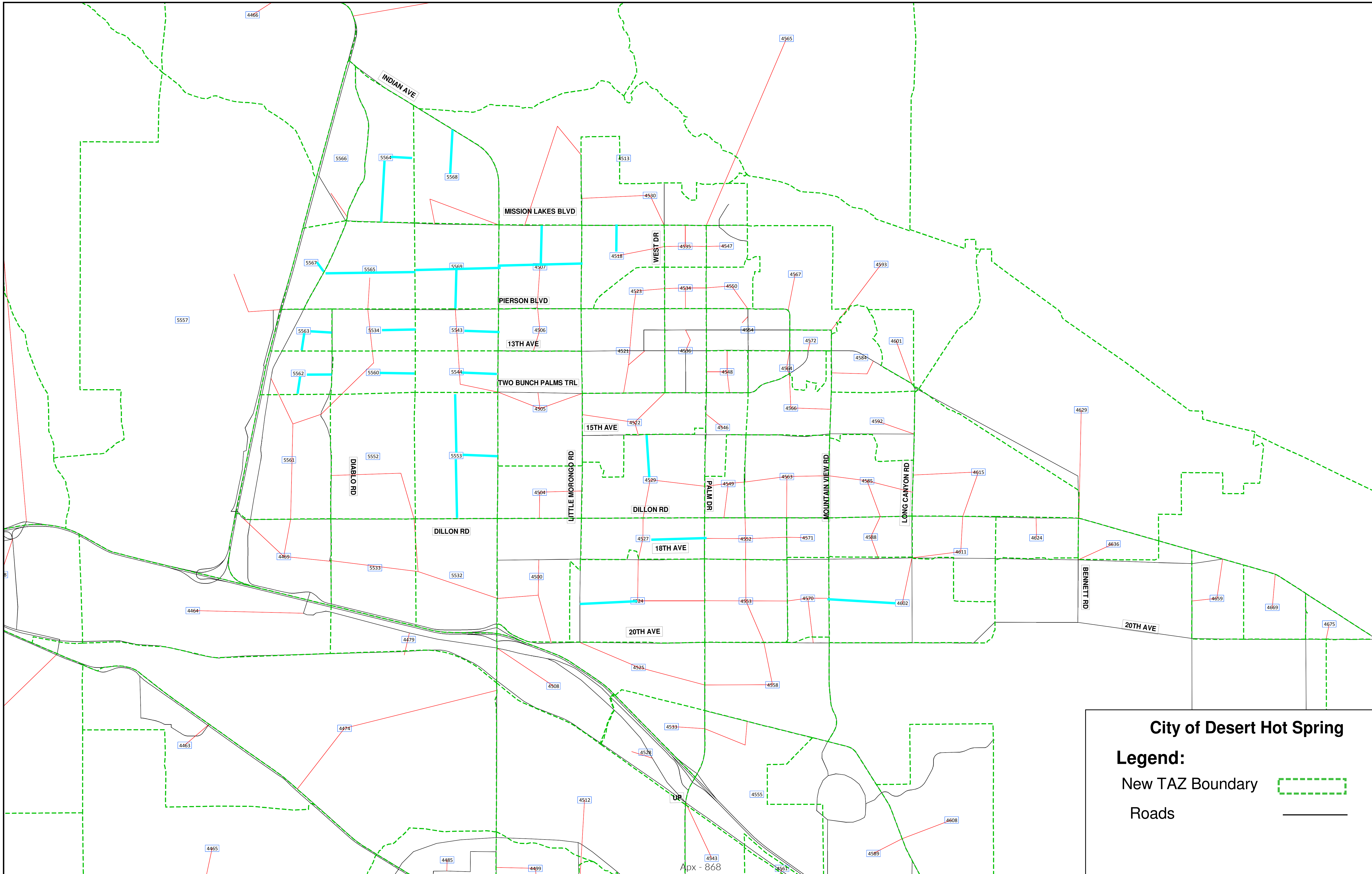
City of Desert Hot Spring
Legend:
City Boundary
TAZ
Roads
Intersection - Point
Roadway Segment - Point
Karen Ave
Palm Dr
10th Ave
Pierson Blvd
13th Ave
14th Ave
Dillon Rd
Diablo Rd
Varner Rd
15TH AVE
PALM DR
62
10
4466
4473
4483
4462
4475
4507
4530
4518
4535
4547
4523
4534
4550
4567
4506
4521
4536
4554
4572
4601
4564
4584
4476
4548
4489
4522
4546
4566
4470
4505
4478
4529
4549
4563
4585
4504
4527
4552
4571
4588
4611
4469
4480
4500
4570
4524
4553
4602
4525
4558



City of Desert Hot Spring
Legend:
City Boundary
TAZ
Roads
Intersection - Point
Roadway Segment - Point
4466
4462
4473
4483
4475
4507
4530
4518
4535
4547
4523
4534
4567
4550
4506
4521
4536
4554
4572
4601
4564
4584
4548
4476
4489
4470
4522
4546
4566
4505
15TH AVE
PALM DR
4478
4529
4549
4563
4585
4504
4527
4552
4571
4588
4611
4469
4480
4500
4570
4524
4553
4602
4525
4558
62
10


Desert Hot Spring - 2035 Roadway Map
Functional Class
10 - Freeway
52 - Minor Arterial
50 - Minor Arterial (Undivided)
41 -Principal Arterial(Devided)
70 -Minor Collector (Undivided)
60 - Major Collector (Undivided
31 - Parkway (Interupted)
0 .5 1 1.5
Miles
Number of Lanes 1
Posted Speed 30
MISSION LAKES BLV
PIERSON Blvd
WORSLEY RD
PALM DR
MIRACLE HILL RD
DESERT VIEW AVE
HACIENDA AVE
VERBENA DR
15TH AVE
INDIAN AVE
LITTLE MORONGO RD
DIABLO RD
Mountain View
LONG CANYON RD
DILLON RD
18TH AVE
20TH AVE
VARNER RD
UP
62
10
111


DRAFT
INDIAN AVE
LITTLE MORONGO RD
MISSION LAKES
WEST DR
MISSION LAKES
13TH AVE
PIERSON BLVD
CHOLLA DRIVE
PIERSON BLVD
DESERT VIEW AVE
HACIENDA AVE
14TH AVE
Two Bunch Palms
15TH AVE
WORSLEY RD
DIABLO RD
KAREN AVE
INDIAN AVE
PALM DR
MOUNTAIN VIEW
DILLON RD
DILLON RD
INDIAN AVE
LITTLE MORONGO RD
20TH AVE
CHARLES ST
VARNER RD
MIHAYLO ROAD
Desert Hot Spring
2040 Proposed GP
00 Posted Speed
0 Number of Lanes


City of Desert Hot Spring
Legend:
New TAZ Boundary
Roads
INDIAN AVE
MISSION LAKES BLVD
PIERSON BLVD
13TH AVE
TWO BUNCH PALMS TRL
15TH AVE
WEST DR
DIABLO RD
DILLON RD
LITTLE MORONGO RD
PALM DR
MOUNTAIN VIEW RD
LONG CANYON RD
18TH AVE
20TH AVE
BENNETT RD
UP

Existing (2018)

						Job Breakdown by Type								
		-	-	-		65%	35%	35%	55%	10%	70%	30%		
		19,101	15,651	3,450										
TAZs	**Totals**	**19,101**	**15,651**	**3,450**	**5,230**	915	683	649	1,020	185	735	315	**755**	**7,089**
		Housing Units			**Employment (Jobs)**								**Motel/Hotel**	**Students**
		Total	**SF**	**MF**	**Total**	**Ret**	**Ser**	**Man**	**Who**	**Trans**	**Gov**	**Util**	**Rooms**	
4500	Housing Units	190	169	21										
	Commercial				93	60	33							
	Industrial				483			169	266	48				
	Public Facilities				10						7	3		-
	Motel/Hotels													
4504	Housing Units	110	110	-										
	Commercial					-	-							
	Industrial				39			14	21	4				
	Public Facilities				-						-	-		-
	Motel/Hotels													
4505	Housing Units	770	765	5										
	Commercial				-	-	-							
	Industrial				375			131	206	38				
	Public Facilities				-						-	-		-
	Motel/Hotels													
4506	Housing Units	234	234	-										
	Commercial				3	2	1							
	Industrial							-	-	-				
	Public Facilities				10						7	3		-
	Motel/Hotels													
4507	Housing Units	156	156	-										
	Commercial				122	79	43							
	Industrial							-	-	-				
	Public Facilities				3						2	1		-
	Motel/Hotels													
4513	Housing Units	1,272	1,208	64										
	Commercial					-	-							
	Industrial							-	-	-				
	Public Facilities				2						1	1		-
	Motel/Hotels													
4518	Housing Units	309	277	32										
	Commercial					-	-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels													
4521	Housing Units	864	720	144										
	Commercial				11	7	4							
	Industrial							-	-	-				
	Public Facilities				10						7	3		-
	Motel/Hotels													
4522	Housing Units	222	222	-										
	Commercial				179	116	63							
	Industrial				169			59	93	17				
	Public Facilities				60						42	18		850
	Motel/Hotels													

4523	Housing Units	246	200	46										
	Commercial					-	-							
	Industrial							-	-	-				
	Public Facilities				170						119	51		1,689
	Motel/Hotels													
4524	Housing Units	76	76											
	Commercial					-	-							
	Industrial				279			98	153	28				
	Public Facilities										-	-		-
	Motel/Hotels													
4525	Housing Units	-												
	Commercial					-	-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels													
4527	Housing Units	103	103											
	Commercial				30	20	11							
	Industrial				220			77	121	22				
	Public Facilities										-	-		-
	Motel/Hotels													
4529	Housing Units	294	278	16										
	Commercial					-	-							
	Industrial				31			11	17	3				
	Public Facilities										-	-		-
	Motel/Hotels													
4530	Housing Units	1,137	1,099	38										
	Commercial				9	6	3							
	Industrial							-	-	-				
	Public Facilities				80						56	24		1,600
	Motel/Hotels													
4533	Housing Units	-												
	Commercial				30	20	11							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels													
4534	Housing Units	620	322	298										
	Commercial				55	36	19							
	Office				48		48							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels													
4535	Housing Units	271	224	47										
	Commercial				2	1	1							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				15						11	5		-
	Motel/Hotels				110								122	
4536	Housing Units	850	658	192										
	Commercial				187	122	65							
	Office				75		59							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels													

4546	Housing Units	302	201	101										
	Commercial				103	67	36							
	Office				35		19							
	Industrial							-	-	-				
	Public Facilities				141						99	42		950
	Motel/Hotels				56								62	
4547	Housing Units	410	322	88										
	Commercial				10	7	4							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				16						11	5		-
	Motel/Hotels				11								12	
4548	Housing Units	539	89	450										
	Commercial				61	40	21							
	Office				53		37							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4549	Housing Units	602	585	17										
	Commercial				23	15	8							
	Office				9		9							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4550	Housing Units	604	251	353										
	Commercial				42	27	15							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				12						8	4		-
	Motel/Hotels				131								145	
4552	Housing Units	339	339											
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4553	Housing Units	-												
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4554	Housing Units	1,881	735	1,146										
	Commercial				75	49	26							
	Office				18		18							
	Industrial							-	-	-				
	Public Facilities				60						42	18		750
	Motel/Hotels				104								116	
4558	Housing Units	53	53											
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	

4563	Housing Units	1,184	1,176	8										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				36						25	11		750
	Motel/Hotels												-	
4564	Housing Units	364	263	101										
	Commercial				2	1	1							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels				71								79	
4566	Housing Units	269	220	49										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels				63								70	
4567	Housing Units	289	289	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4570	Housing Units	420	420	-										
	Commercial				18	12	6							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4571	Housing Units	275	275	-										
	Commercial				6	4	2							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				16						11	5		-
	Motel/Hotels												-	
4572	Housing Units	189	124	65										
	Commercial				6	4	2							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels				32								36	
4584	Housing Units	989	848	141										
	Commercial				14	9	5							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels				102								113	
4585	Housing Units	239	239	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	

4592	Housing Units	125	125	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4593	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
4601	Housing Units	35	35	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				48						34	14		500
	Motel/Hotels												-	
5534	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5543	Housing Units	64	64	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5544	Housing Units	62	62	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5552	Housing Units	62	62											
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities				361						253	108		-
	Motel/Hotels												-	
5553	Housing Units	3	3	-										
	Commercial					-	-							
	Office						-							
	Industrial				38			13	21	4				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5557	Housing Units	1,231	1,231	-										
	Commercial				185	120	65							
	Office						-							
	Industrial				220			77	121	22				
	Public Facilities										-	-		-
	Motel/Hotels												-	

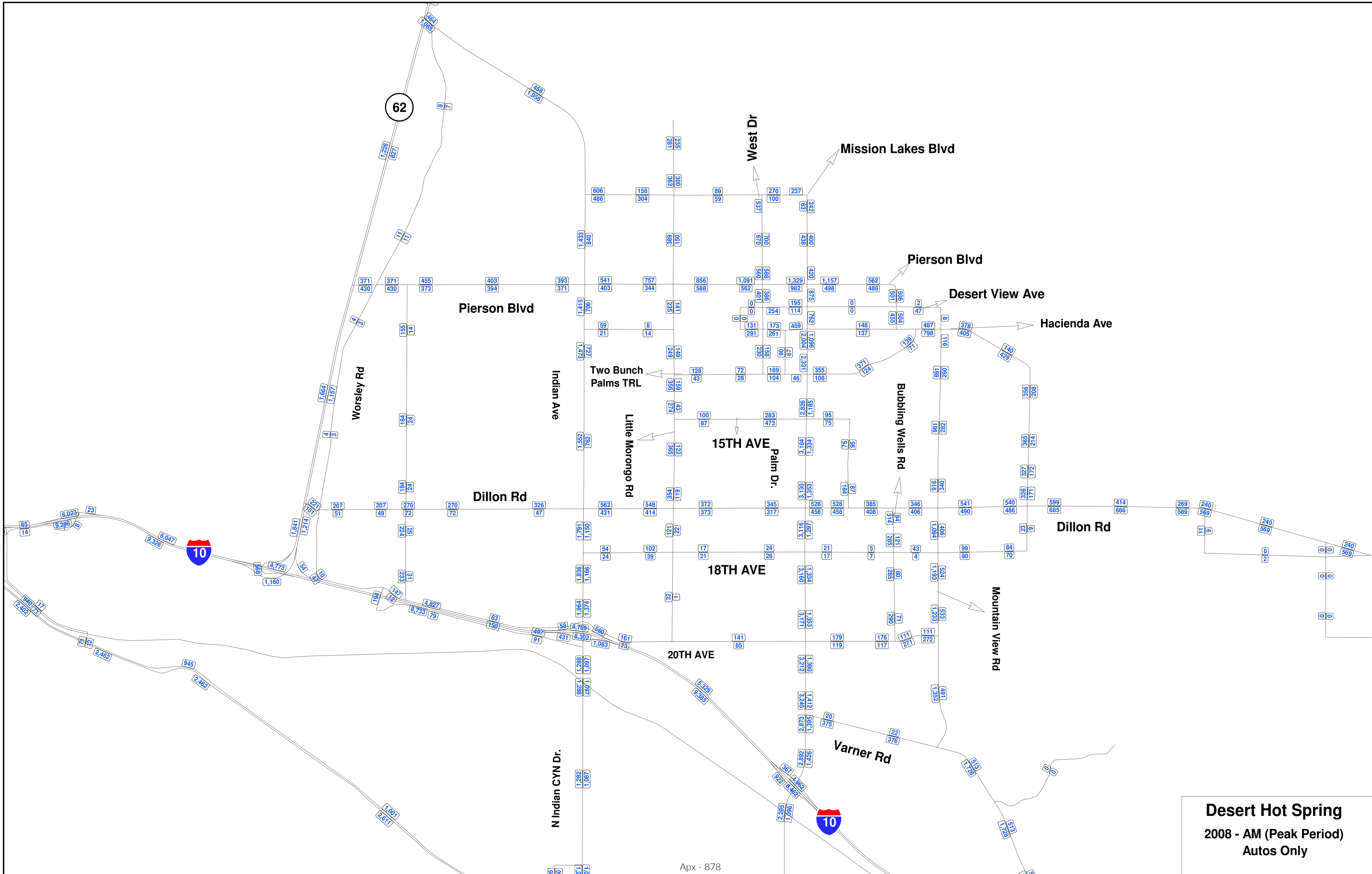
5560	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5561	Housing Units	435	435											
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5562	Housing Units	-												
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5563	Housing Units	12	12	-										
	Commercial				142	92	50							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5564	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5565	Housing Units	252	241	11										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5566	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5567	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	
5568	Housing Units	-	-	-										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	

5569	Housing Units	148	131	17										
	Commercial					-	-							
	Office						-							
	Industrial							-	-	-				
	Public Facilities										-	-		-
	Motel/Hotels												-	

APPENDIX E

TRAVEL DEMAND MODEL PLOTS

BASE YEAR (2008)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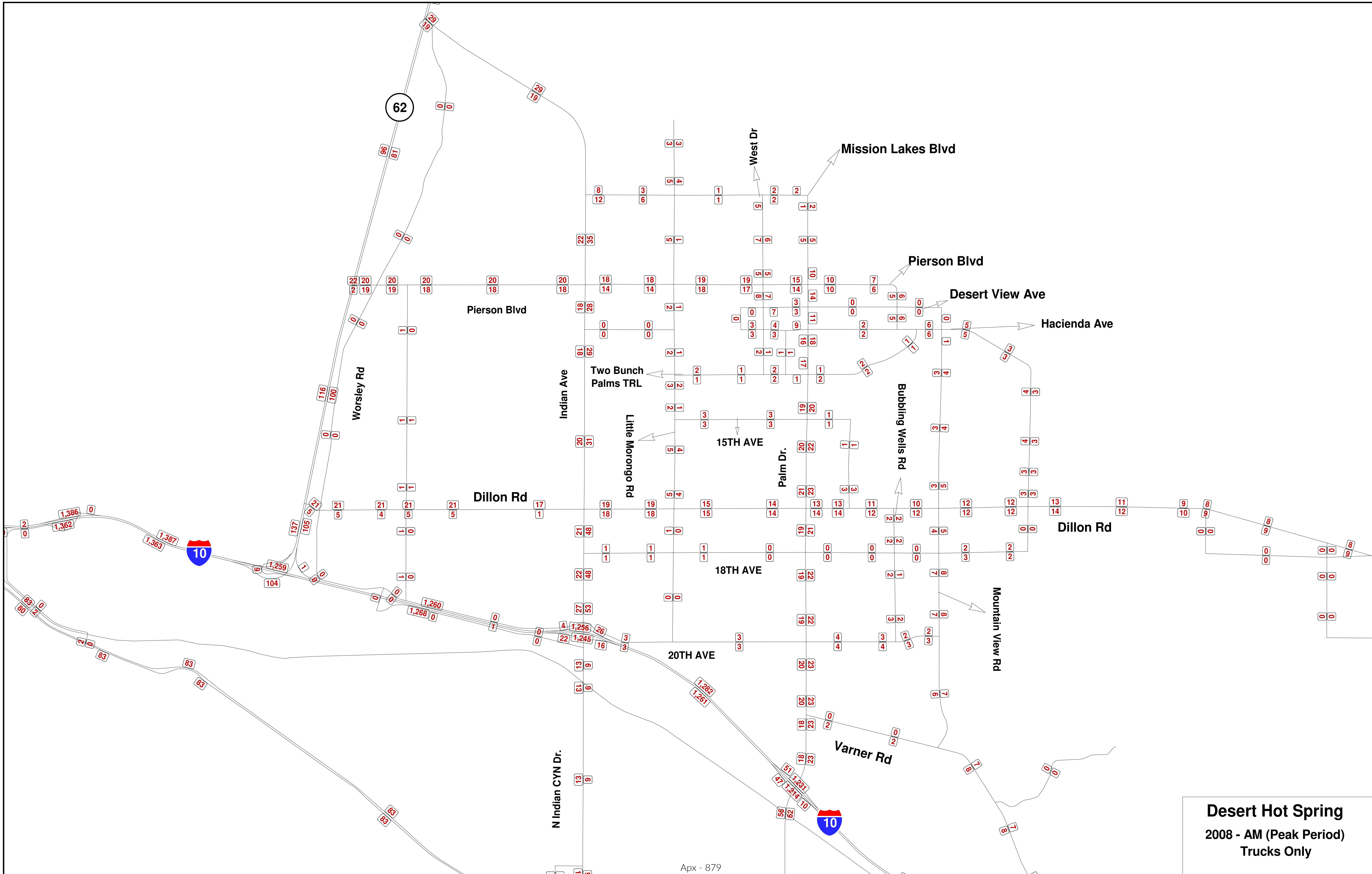
West Dr
Mission Lakes Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Pierson Blvd
Worsley Rd
Indian Ave
Two Bunch
Palms TRL
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
10
18TH AVE
Mountain View Rd
20TH AVE
Varner Rd
N Indian CYN Dr.
10
Desert Hot Spring
2008 - AM (Peak Period)
Autos Only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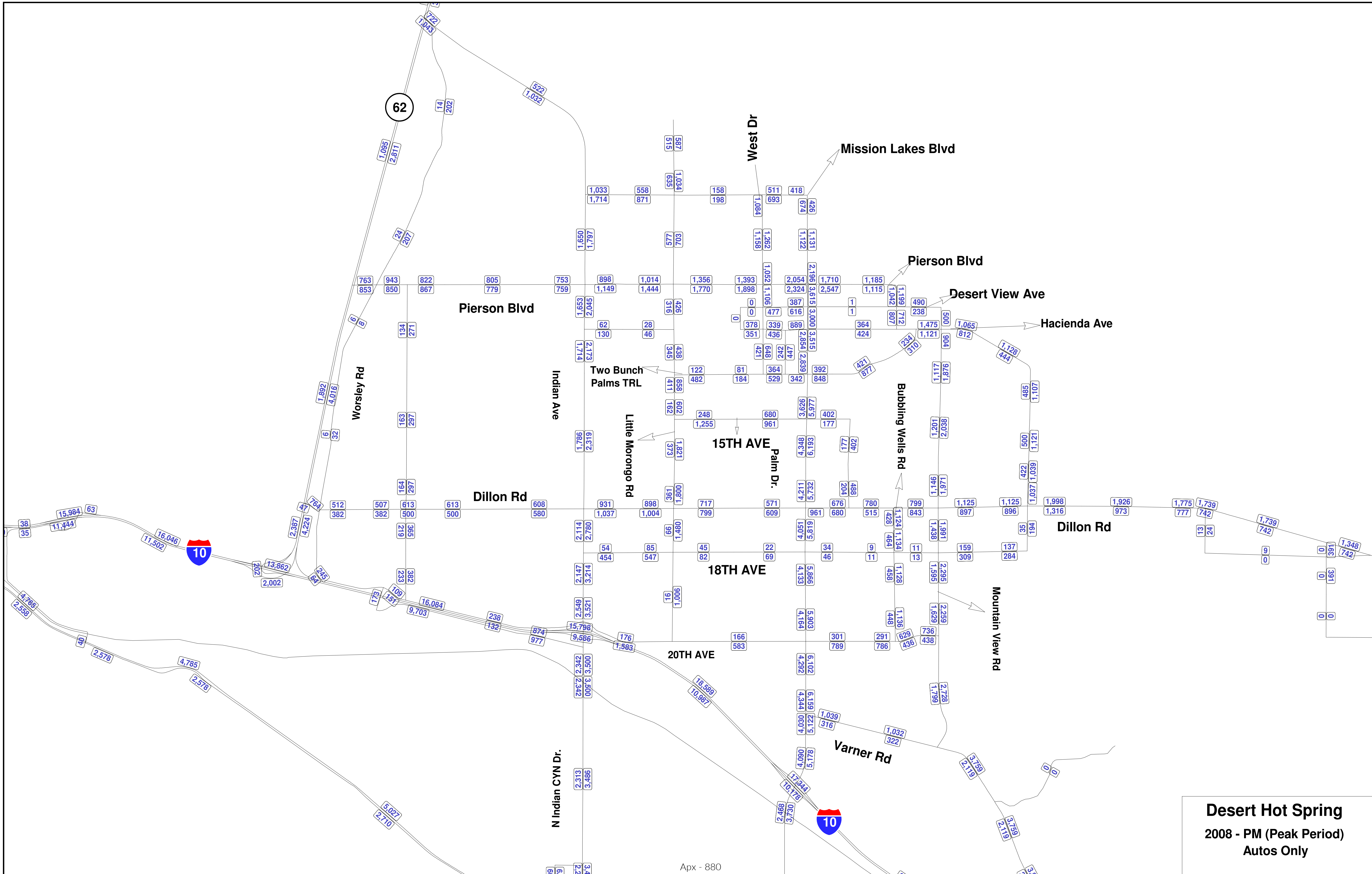
Mission Lakes Blvd
West Dr
Pierson Blvd
Desert View Ave
Hacienda Ave
Pierson Blvd
Worsley Rd
Indian Ave
Two Bunch
Palms TRL
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
18TH AVE
10
20TH AVE
Mountain View Rd
Varner Rd
N Indian CYN Dr.
10
Desert Hot Spring
2008 - AM (Peak Period)
Trucks Only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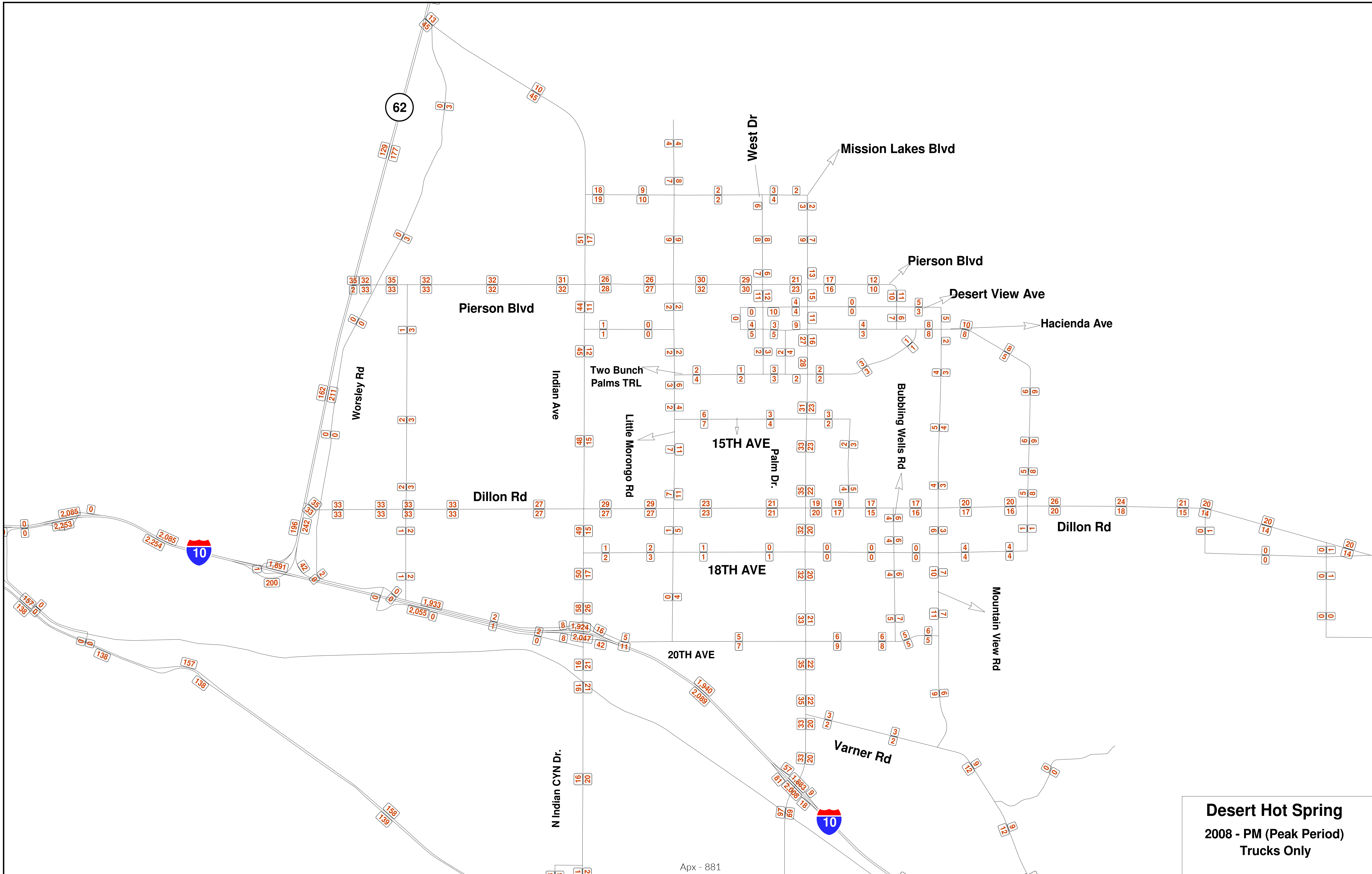
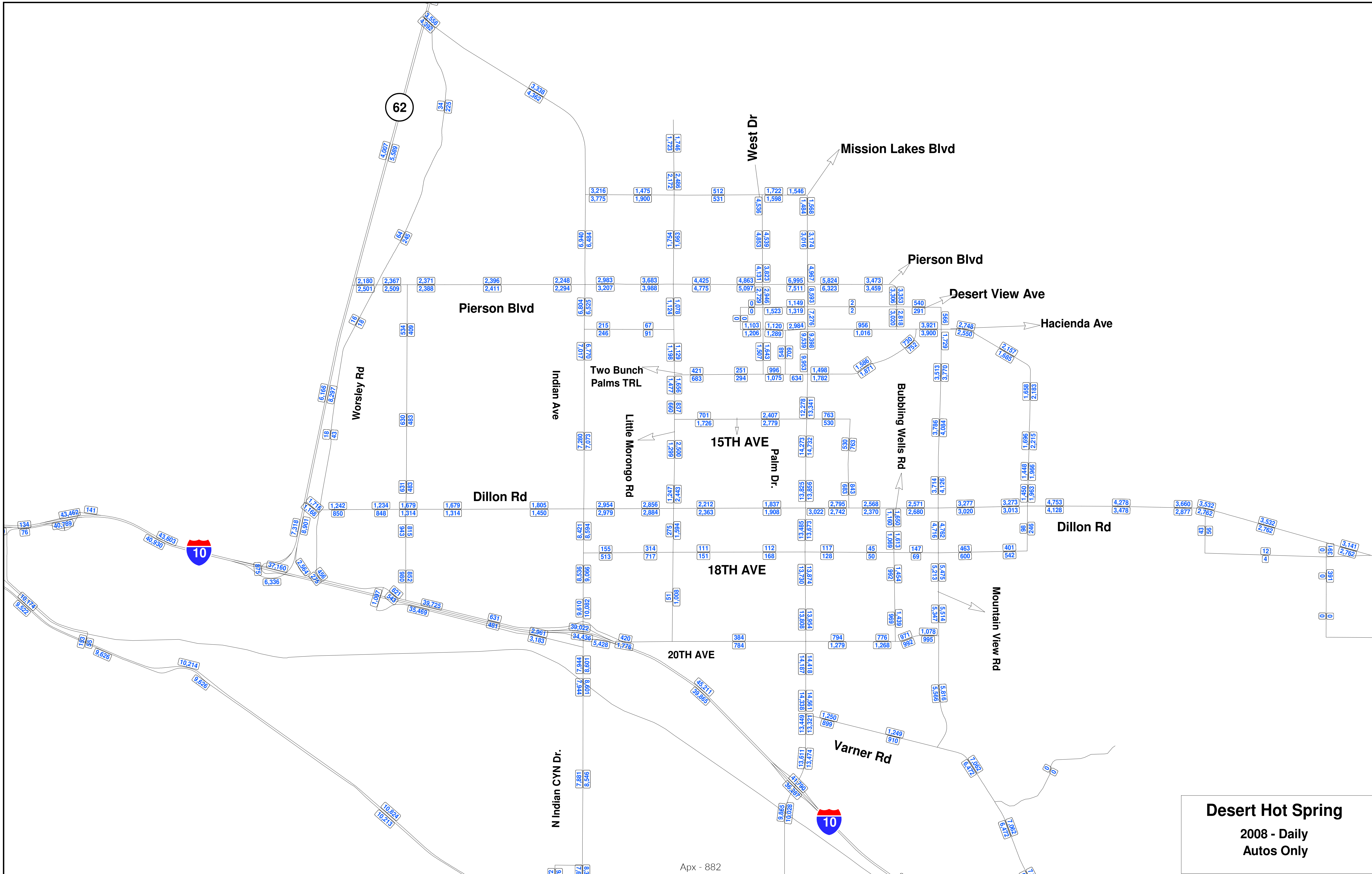
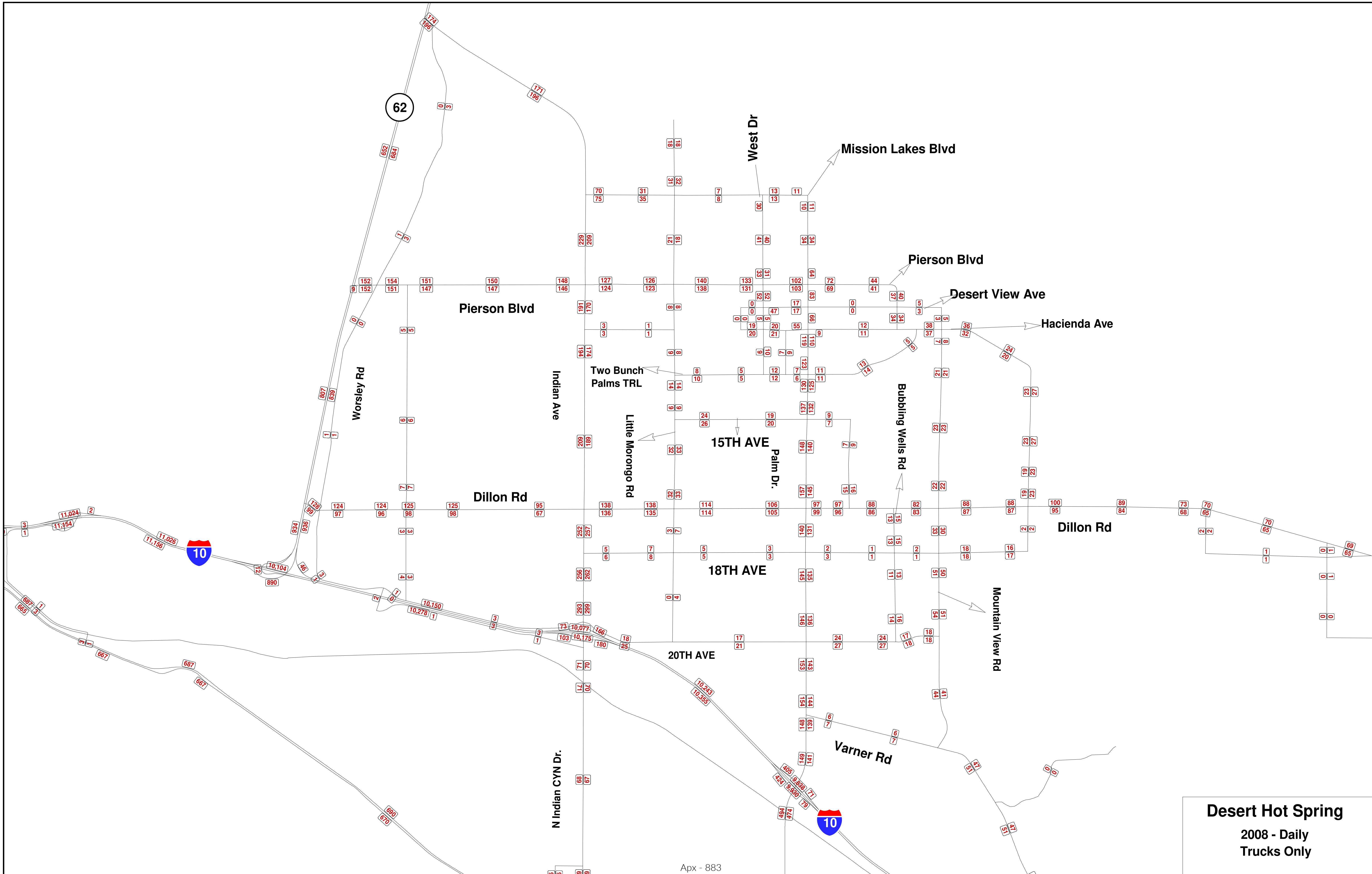
Mission Lakes Blvd
West Dr
Pierson Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Two Bunch
Palms TRL
Worsley Rd
Indian Ave
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
10
18TH AVE
20TH AVE
Mountain View Rd
Varner Rd
N Indian CYN Dr.
10
Desert Hot Spring
2008 - PM (Peak Period)
Autos Only



62
West Dr
Mission Lakes Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Pierson Blvd
Worsley Rd
Indian Ave
Two Bunch Palms TRL
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
10
18TH AVE
20TH AVE
Mountain View Rd
Varner Rd
N Indian CYN Dr.
10
Desert Hot Spring
2008 - PM (Peak Period)
Trucks Only


Desert Hot Spring
2008 - Daily
Autos Only
Mission Lakes Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Pierson Blvd
West Dr
Two Bunch
Palms TRL
Indian Ave
Worsley Rd
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
18TH AVE
20TH AVE
Mountain View Rd
Varner Rd
N Indian CYN Dr.
62
10
10



Desert Hot Spring
2008 - Daily
Trucks Only
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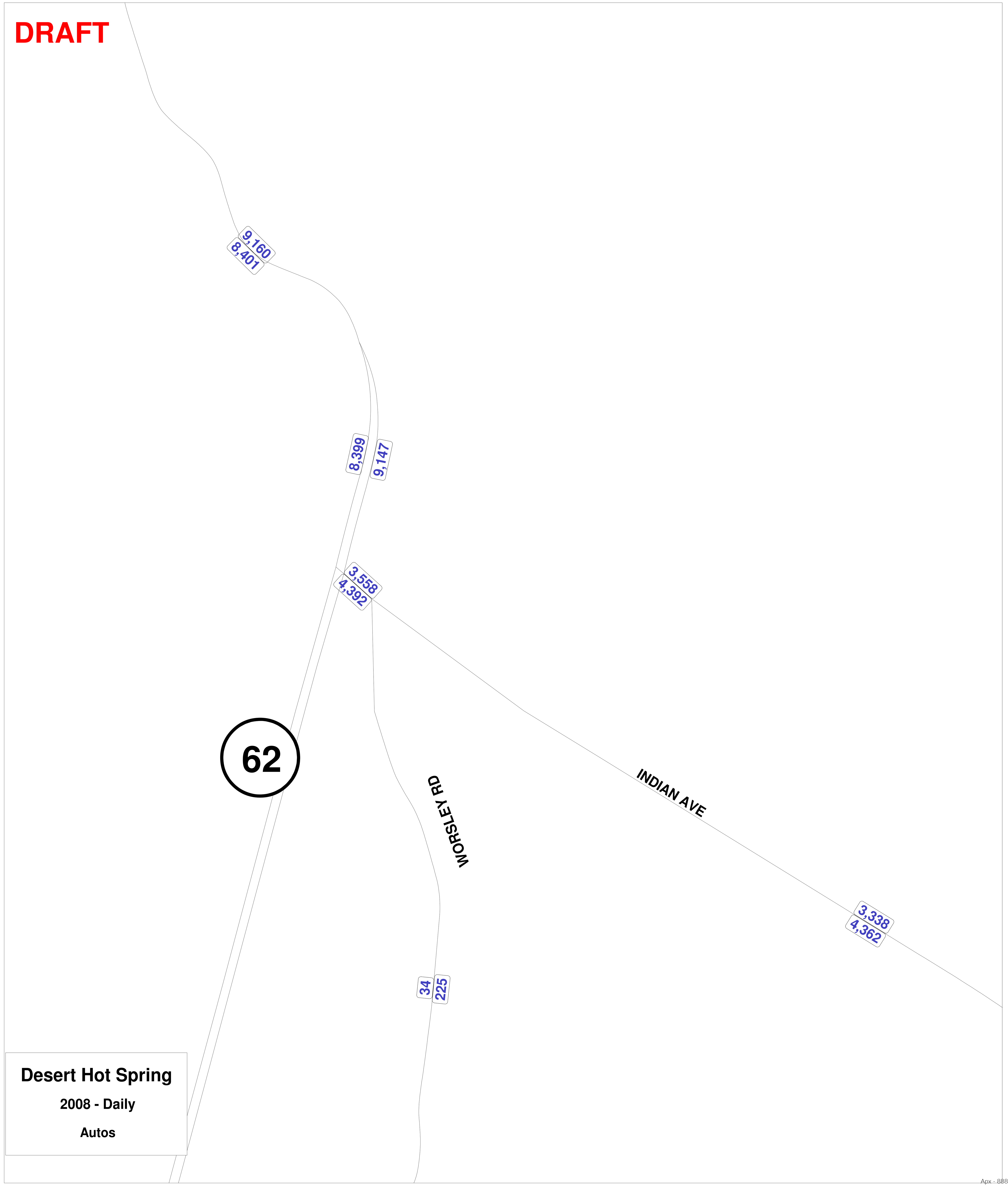
West Dr
Pierson Blvd
Desert View Ave
Hacienda Ave
Two Bunch Palms TRL
Indian Ave
Worsley Rd
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
18TH AVE
20TH AVE
Mountain View Rd
Varner Rd
N Indian CYN Dr.
62
10

DRAFT
62
Mission Lakes Blvd
West Dr
Pierson Blvd
Desert View Ave
Hacienda Ave
Pierson Blvd
Worsley Rd
Indian Ave
Two Bunch
Palms TRL
Little Morongo
15TH AVE
Palm Dr.
Bubbling Wells
Dillon Rd
Dillon Rd
18TH AVE
Mountain View Rd
20TH AVE
10
10
Varner Rd
N Indian CYN Dr.
Desert Hot Spring
2008 - PM (Peak Period)
(Trucks Only)


DRAFT
62
Mission Lakes Blvd
West Dr
Pierson Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Worsley Rd
Indian Ave
Two Bunch
Palms TRL
Little Morongo
15TH AVE
Palm Dr.
Bubbling Wells
Dillon Rd
Dillon Rd
18TH AVE
Mountain View Rd
20TH AVE
10
10
Varner Rd
N Indian CYN Dr.
Desert Hot Spring
2008 - PM (Peak Period)
(Autos Only)


DRAFT
Mission Lakes Blvd
West Dr
Pierson Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Worsley Rd
Indian Ave
Two Bunch
Palms TRL
Little Morongo
15TH AVE
Palm Dr.
Bubbling Wells
Dillon Rd
Dillon Rd
18TH AVE
Mountain View Rd
20TH AVE
Varner Rd
N Indian CYN Dr.
62
10
10
Desert Hot Spring
2008 - AM (Peak Period)
(Trucks Only)


DRAFT
62
Mission Lakes Blvd
West Dr
Pierson Blvd
Pierson Blvd
Desert View Ave
Hacienda Ave
Two Bunch
Palms TRL
Indian Ave
Worsley Rd
Little Morongo Rd
15TH AVE
Palm Dr.
Bubbling Wells Rd
Dillon Rd
Dillon Rd
18TH AVE
20TH AVE
Mountain View Rd
Varner Rd
CYN Dr.
10
10
Desert Hot Spring
2008 - AM (Peak Period)
(Autos Only)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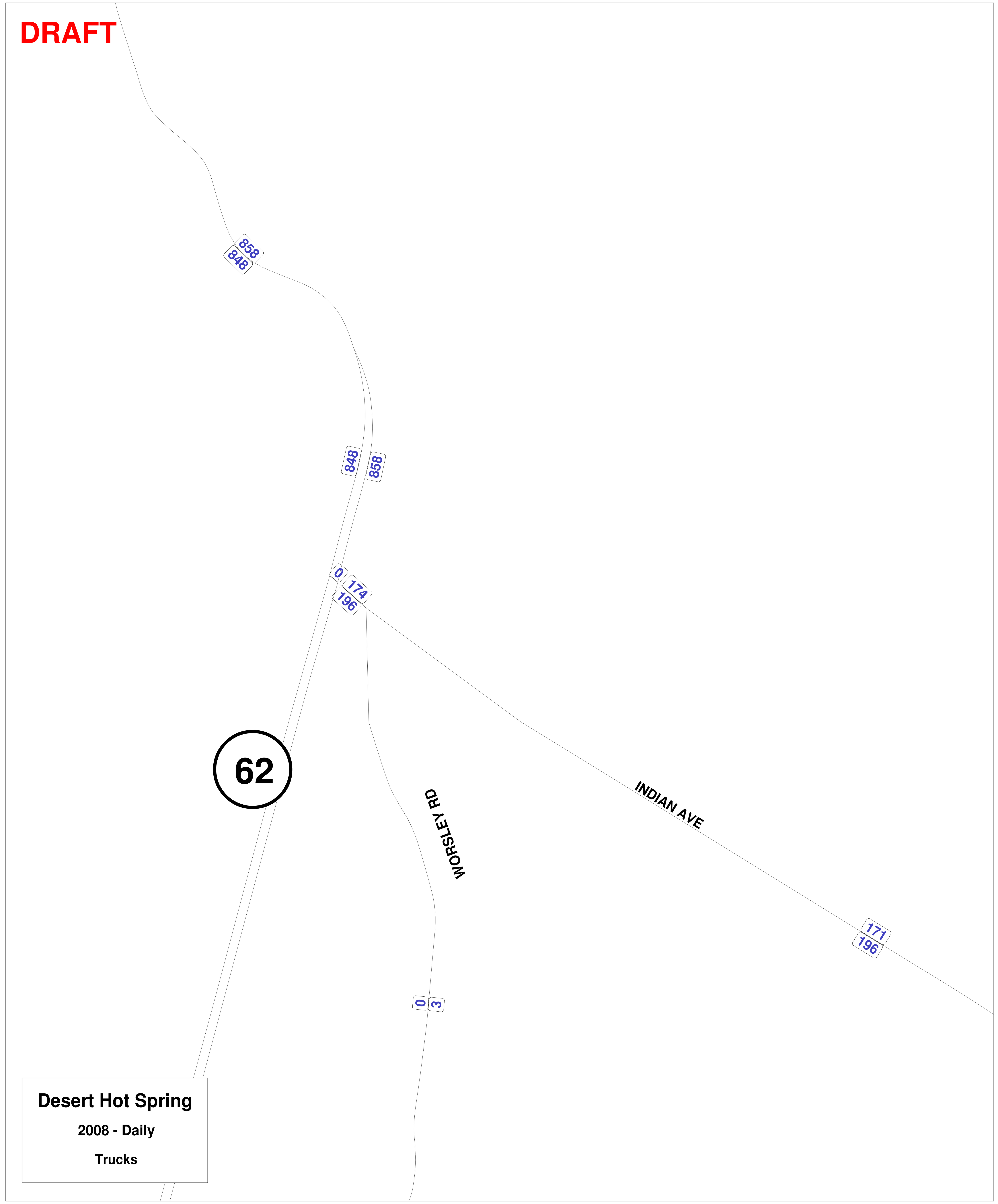
9,160
8,401
8,399
9,147
3,558
4,392
62
WORSLEY RD
INDIAN AVE
3,338
4,362
34
225
Desert Hot Spring
2008 - Daily
Autos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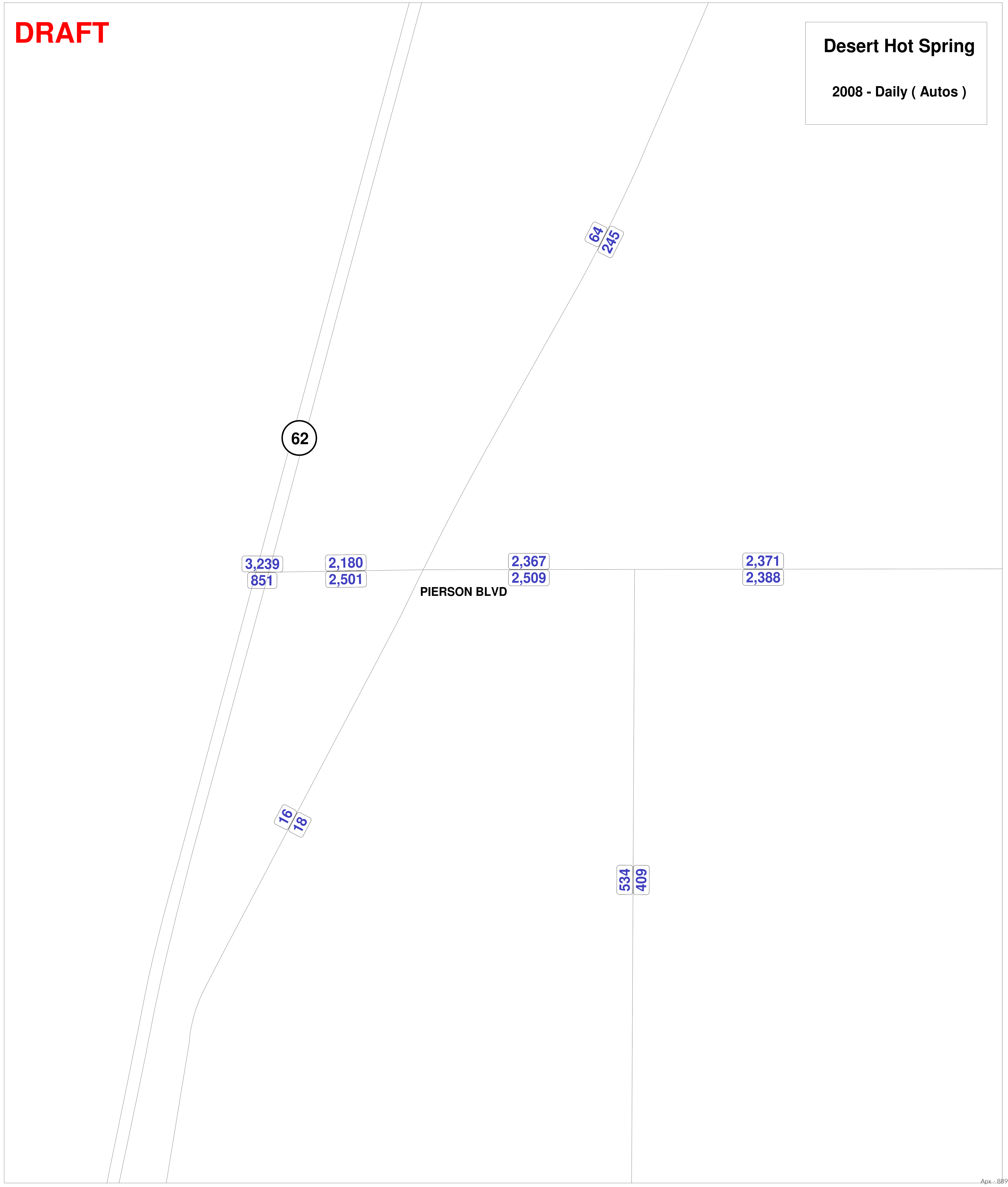
174
196
62
WORSLEY RD
INDIAN AVE
171
196
0
3
Desert Hot Spring
2008 - Daily
Trucks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Desert Hot Spring
2008 - Daily (Autos)
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64
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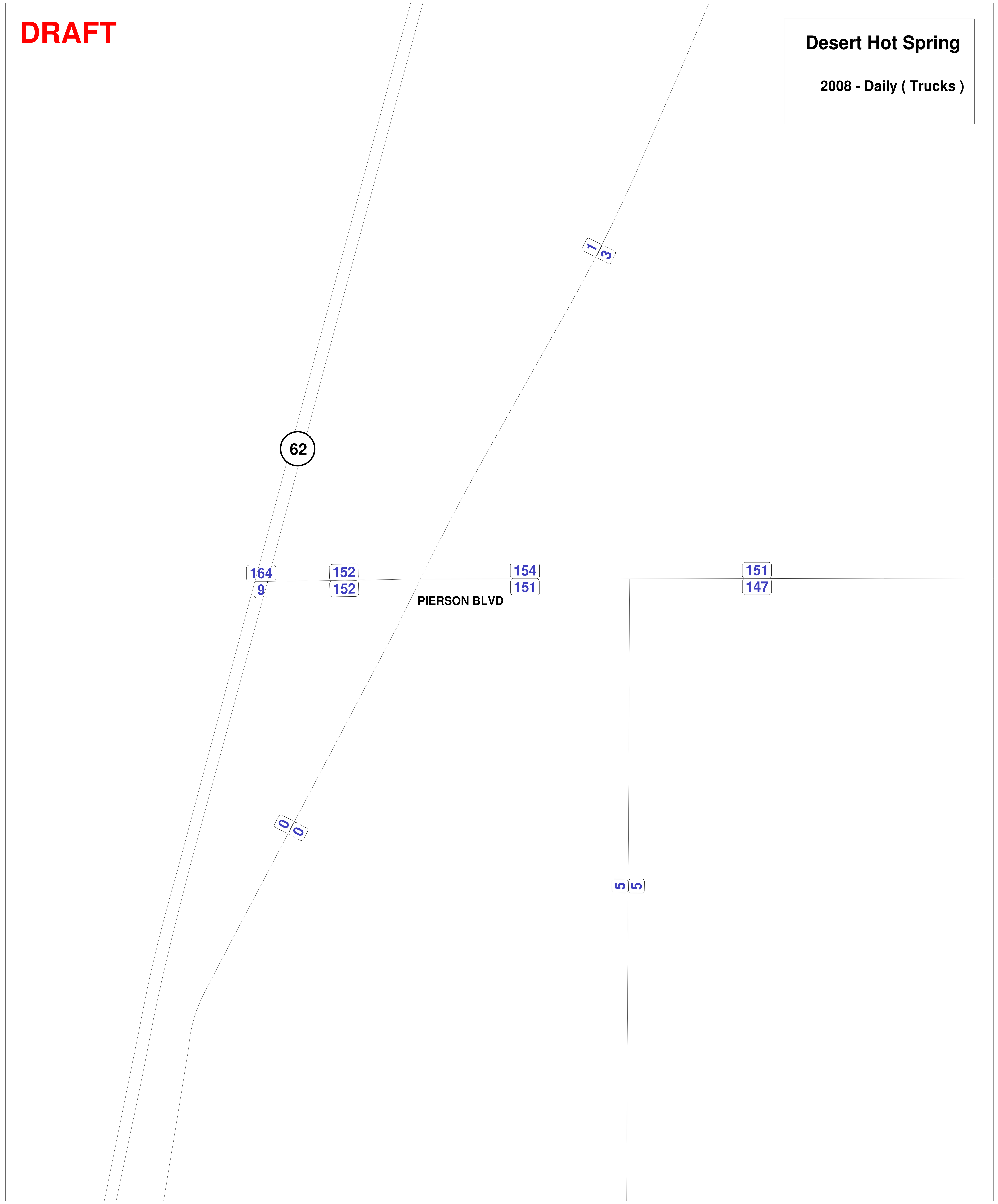
3,239
851
2,180
2,501
2,367
2,509
2,371
2,388
PIERSON BLVD
16
18
534
409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Desert Hot Spring
2008 - Daily (Trucks)
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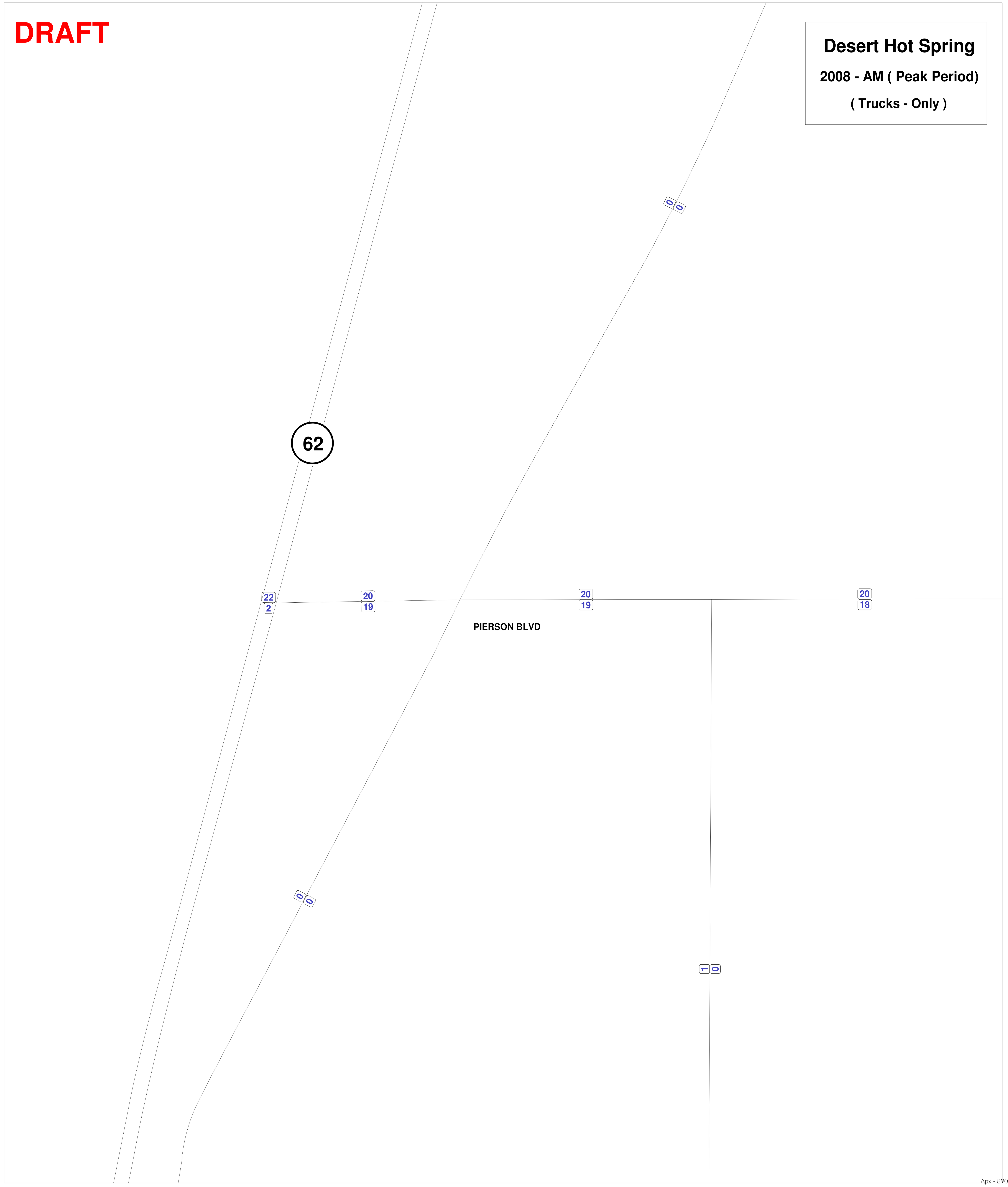
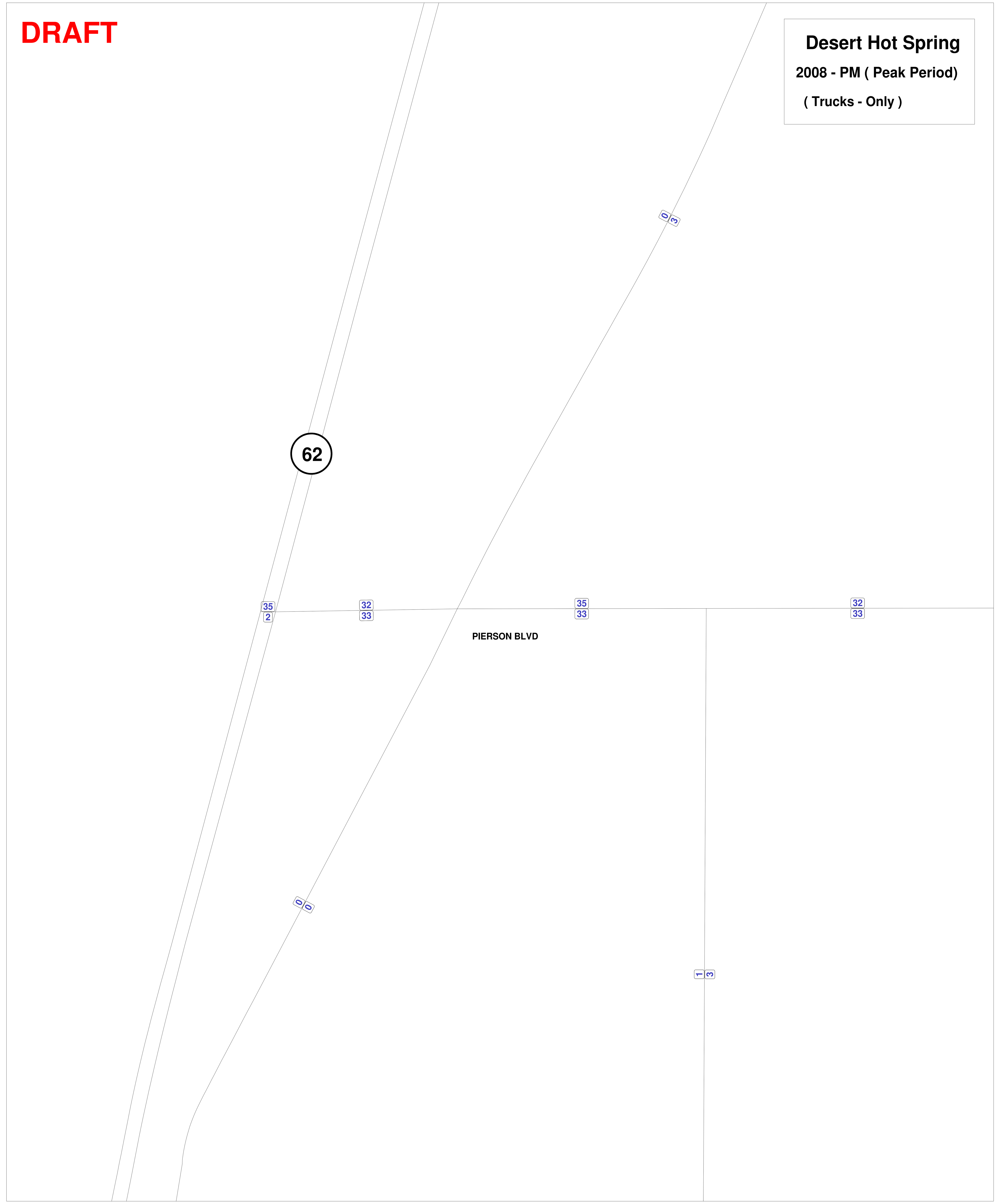
3
164
9
152
152
154
151
151
147
PIERSON BLVD
0
0
5
5

Apx - 889


DRAFT
Desert Hot Spring
2008 - AM (Peak Period)
(Trucks - Only)
62
22
2
20
19
20
19
20
18
PIERSON BLVD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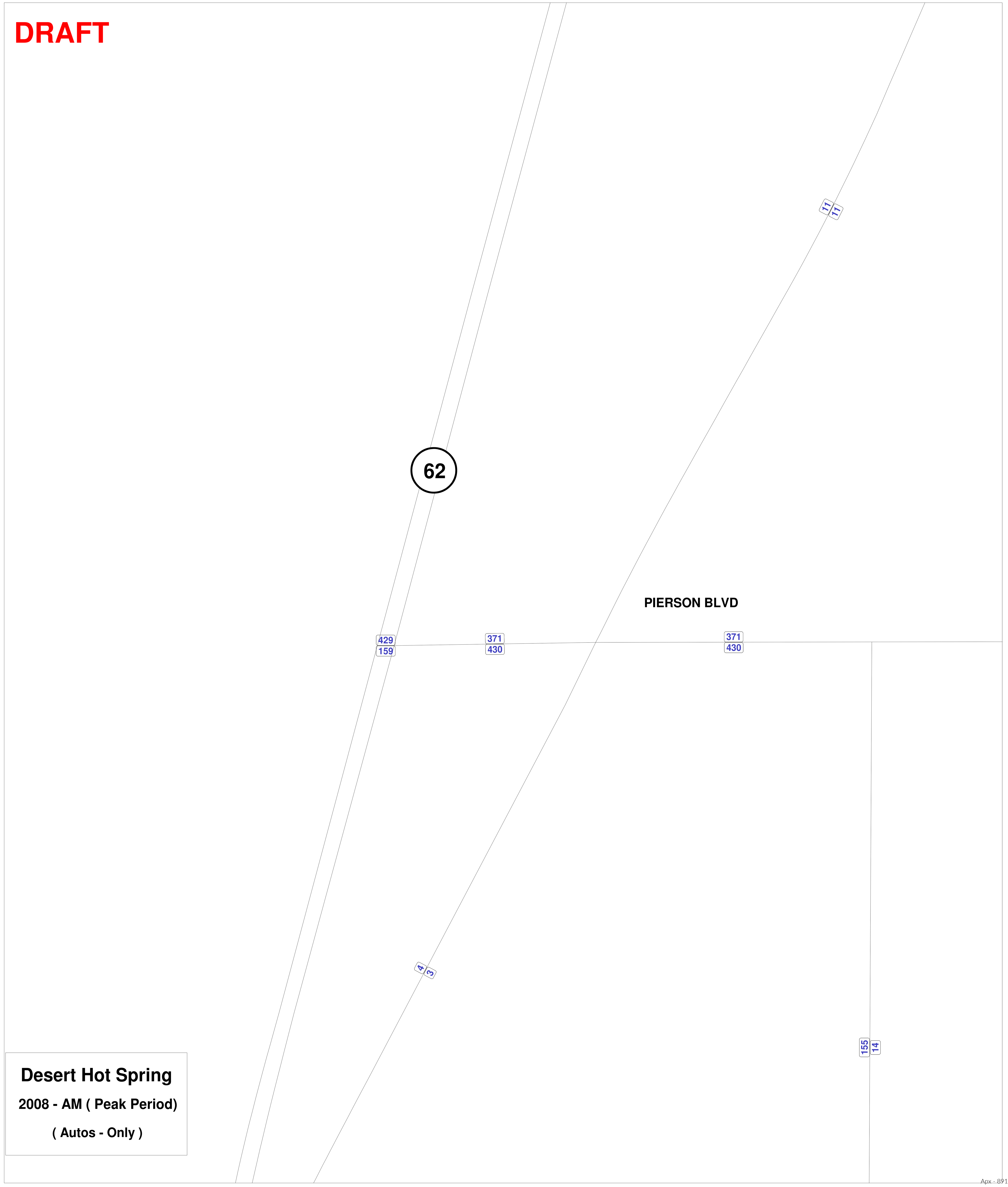
Desert Hot Spring
2008 - PM (Peak Period)
(Trucks - Only)
62
35
2
32
33
35
33
32
33
PIERSON BLVD

Apx - 890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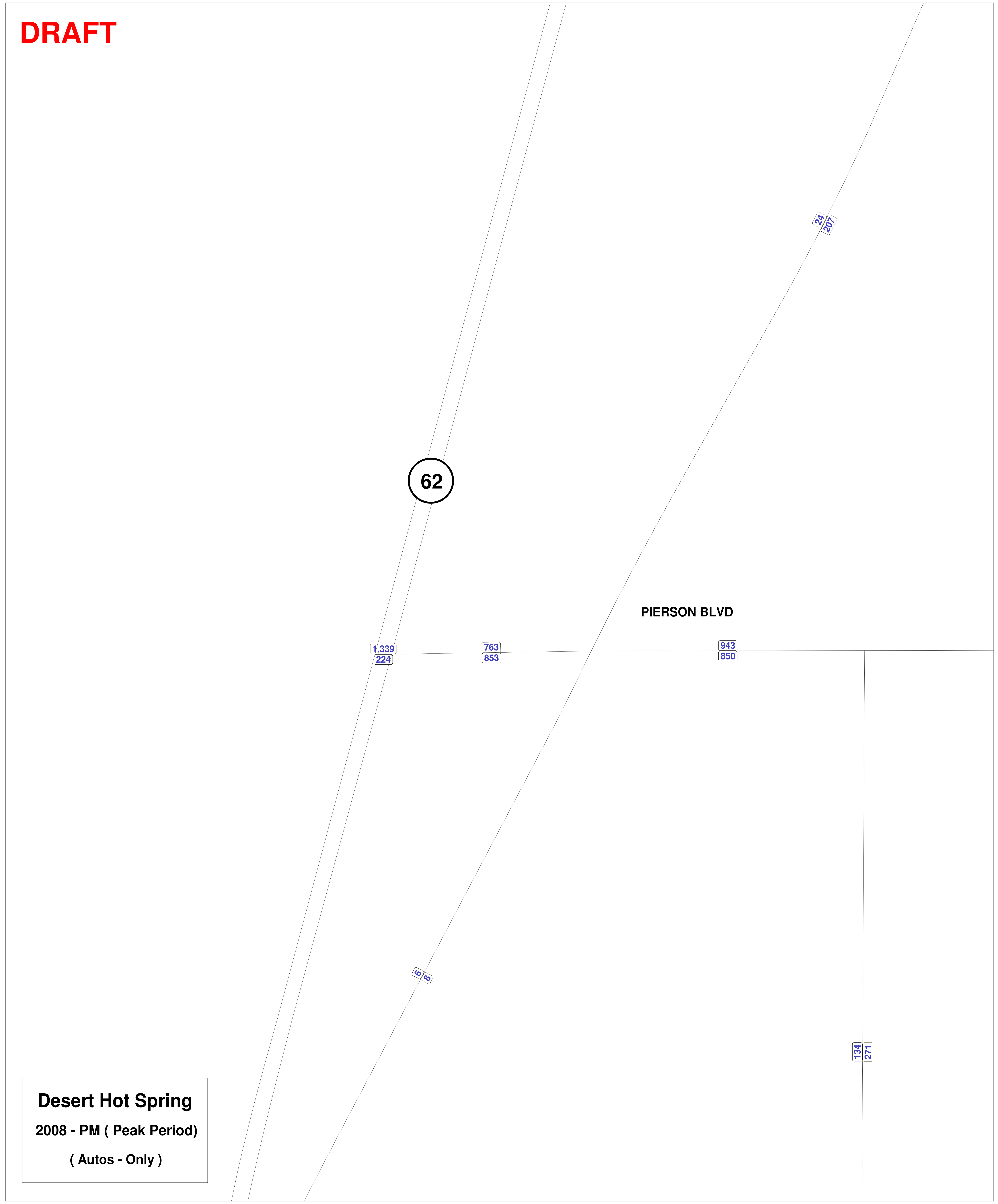
11
11
62
PIERSON BLVD
429
159
371
430
371
430
4
3
155
14
Desert Hot Spring
2008 - AM (Peak Period)
(Autos - Only)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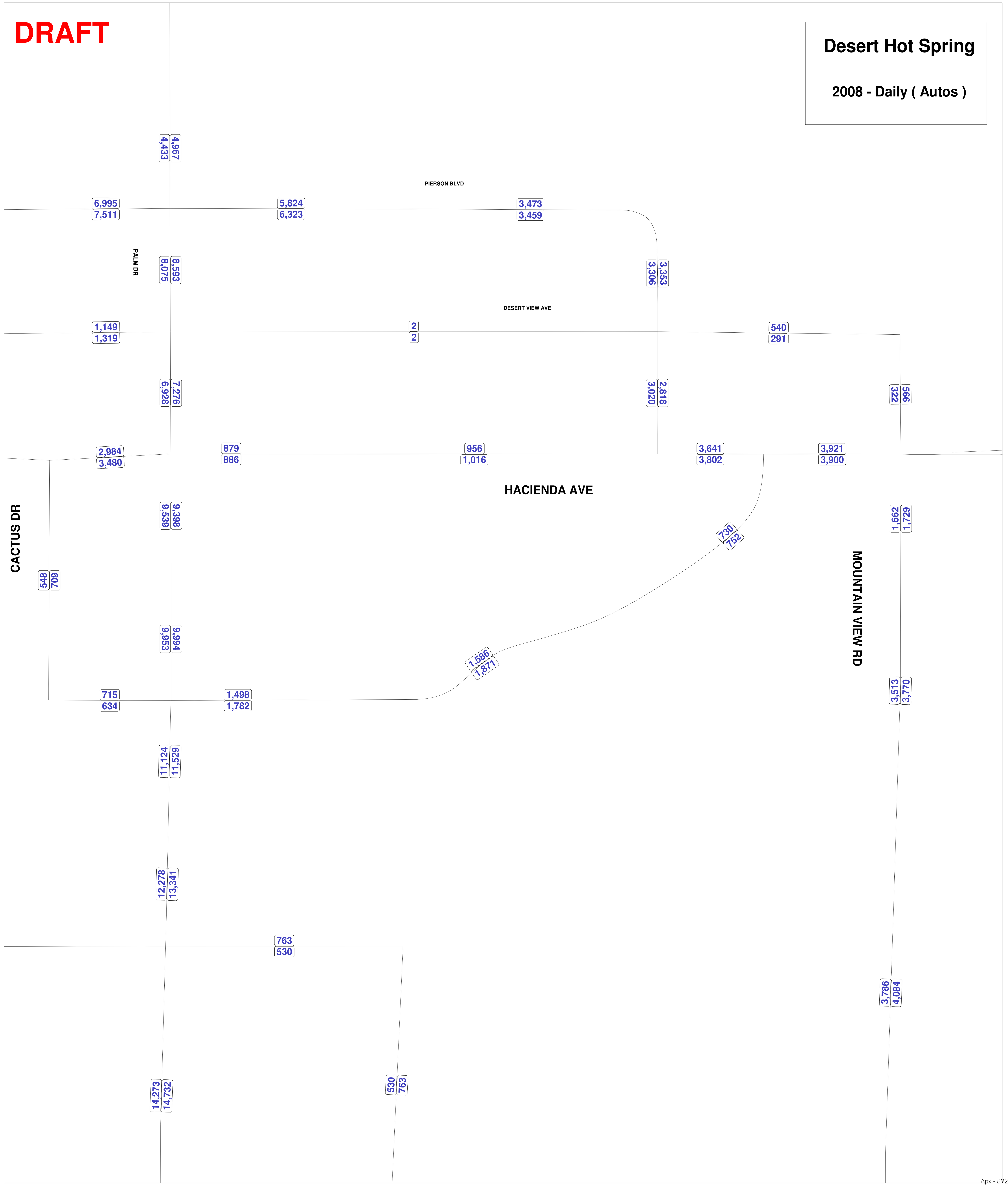
24
207
62
PIERSON BLVD
1,339
224
763
853
943
850
6
8
134
271
Desert Hot Spring
2008 - PM (Peak Period)
(Autos - Only)


DRAFT
Desert Hot Spring
2008 - Daily (Autos)
PIERSON BLVD
PALM DR
DESERT VIEW AVE
HACIENDA AVE
CACTUS DR
MOUNTAIN VIEW RD
4,433 4,967
6,995 7,511
5,824 6,323
3,473 3,459
8,075 8,593
3,306 3,353
1,149 1,319
2 2
540 291
6,928 7,276
3,020 2,818
322 566
2,984 3,480
879 886
956 1,016
3,641 3,802
3,921 3,900
9,539 9,398
1,662 1,729
730 752
548 709
9,953 9,994
1,586 1,871
3,513 3,770
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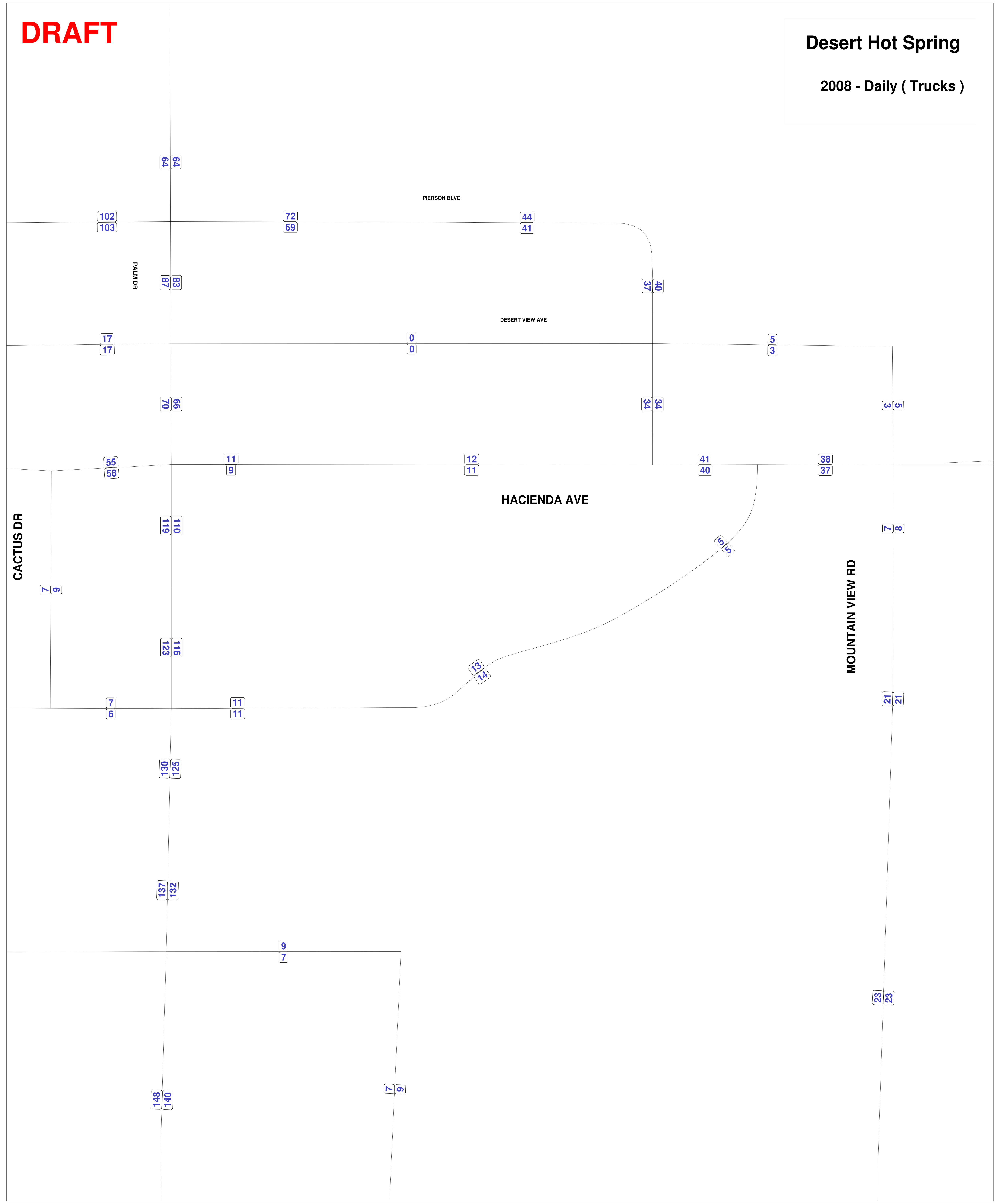
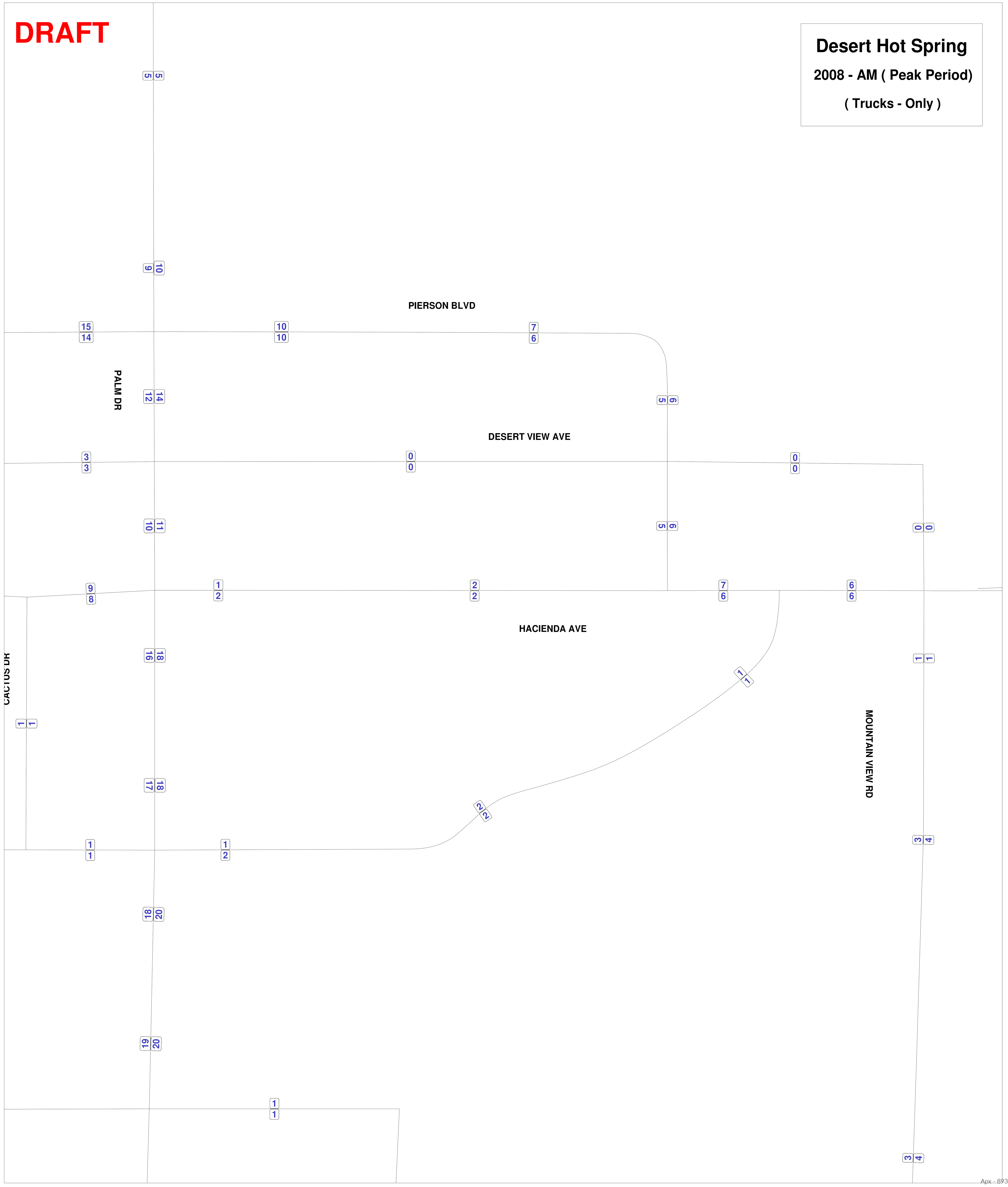
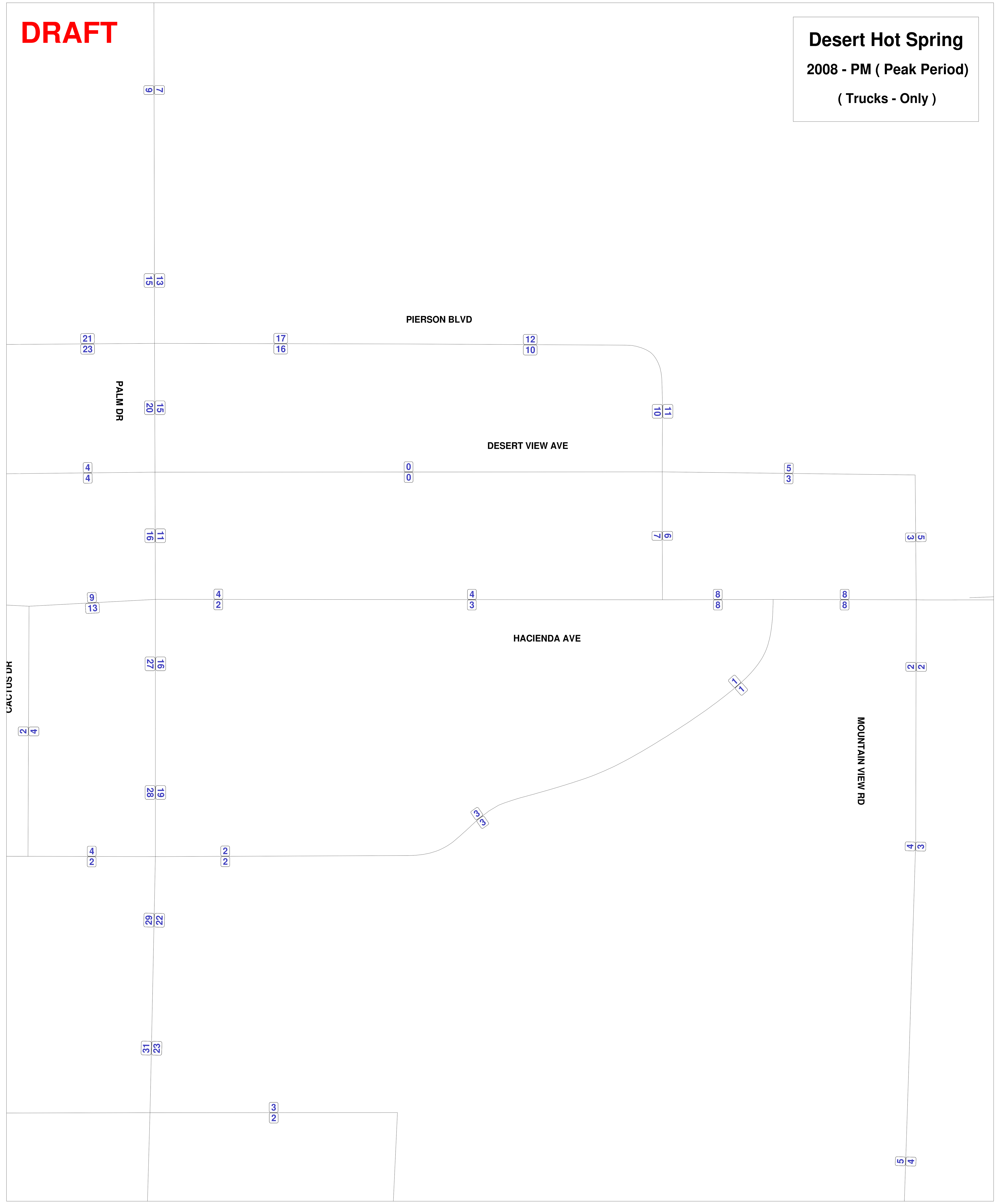
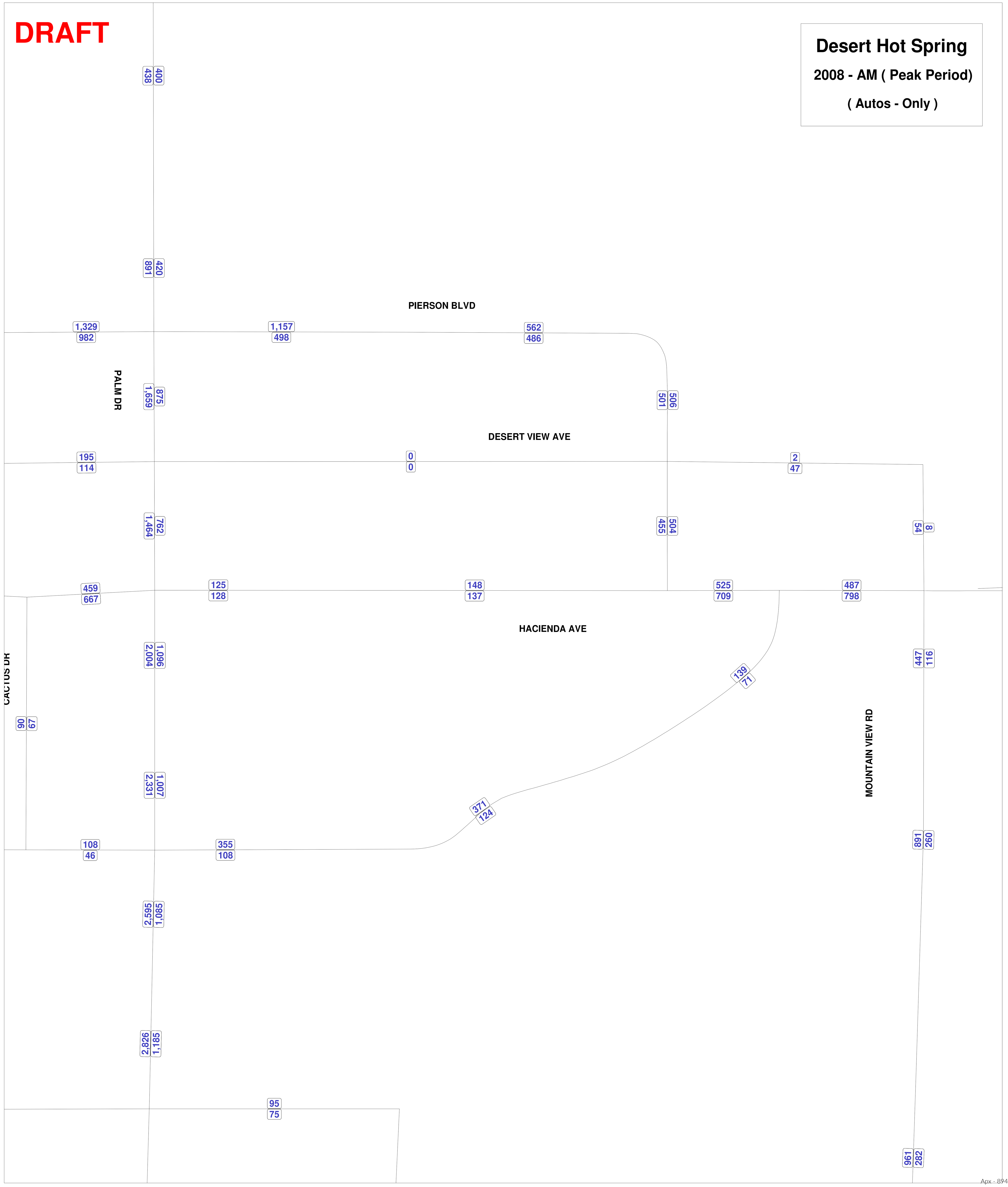
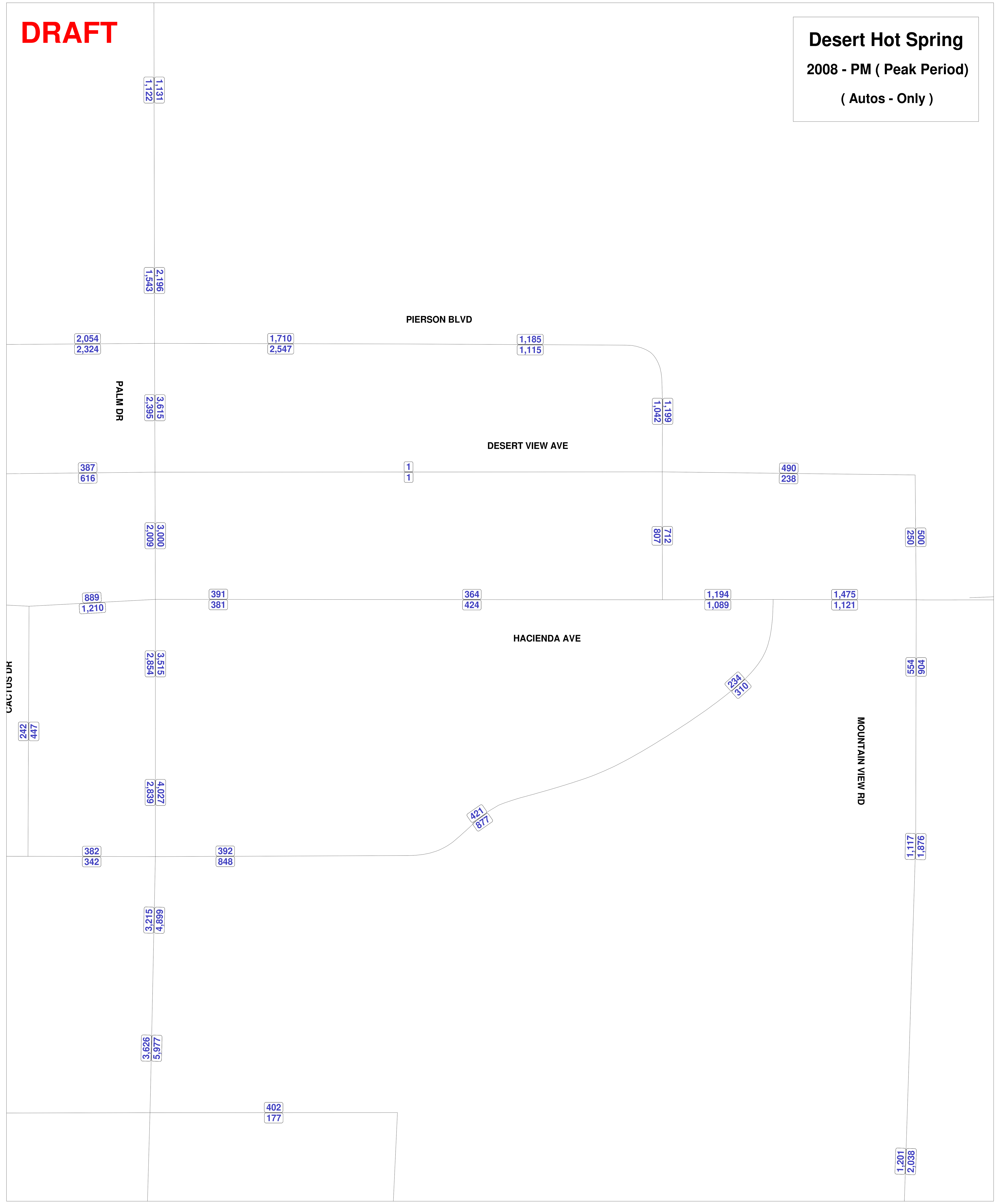
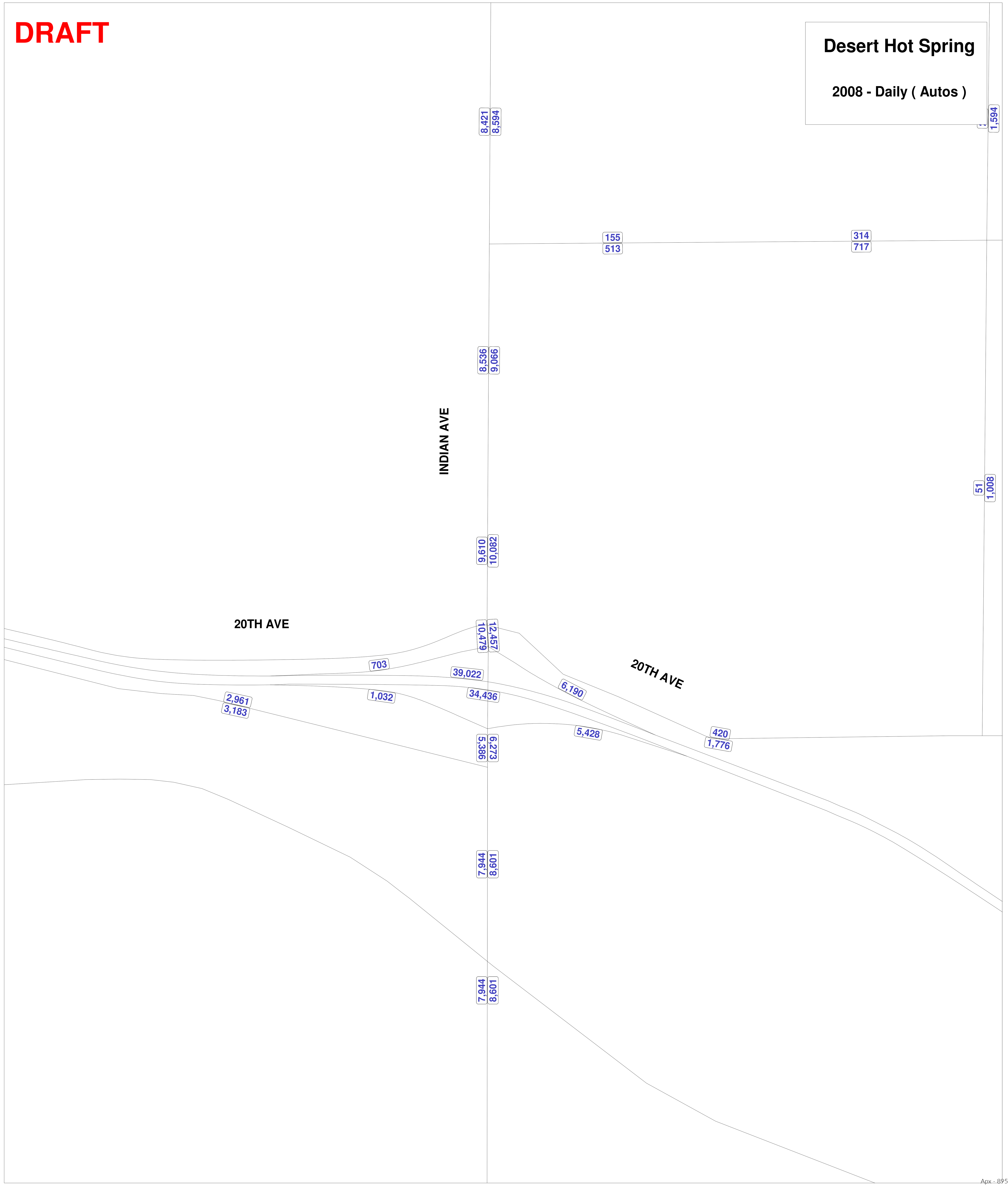
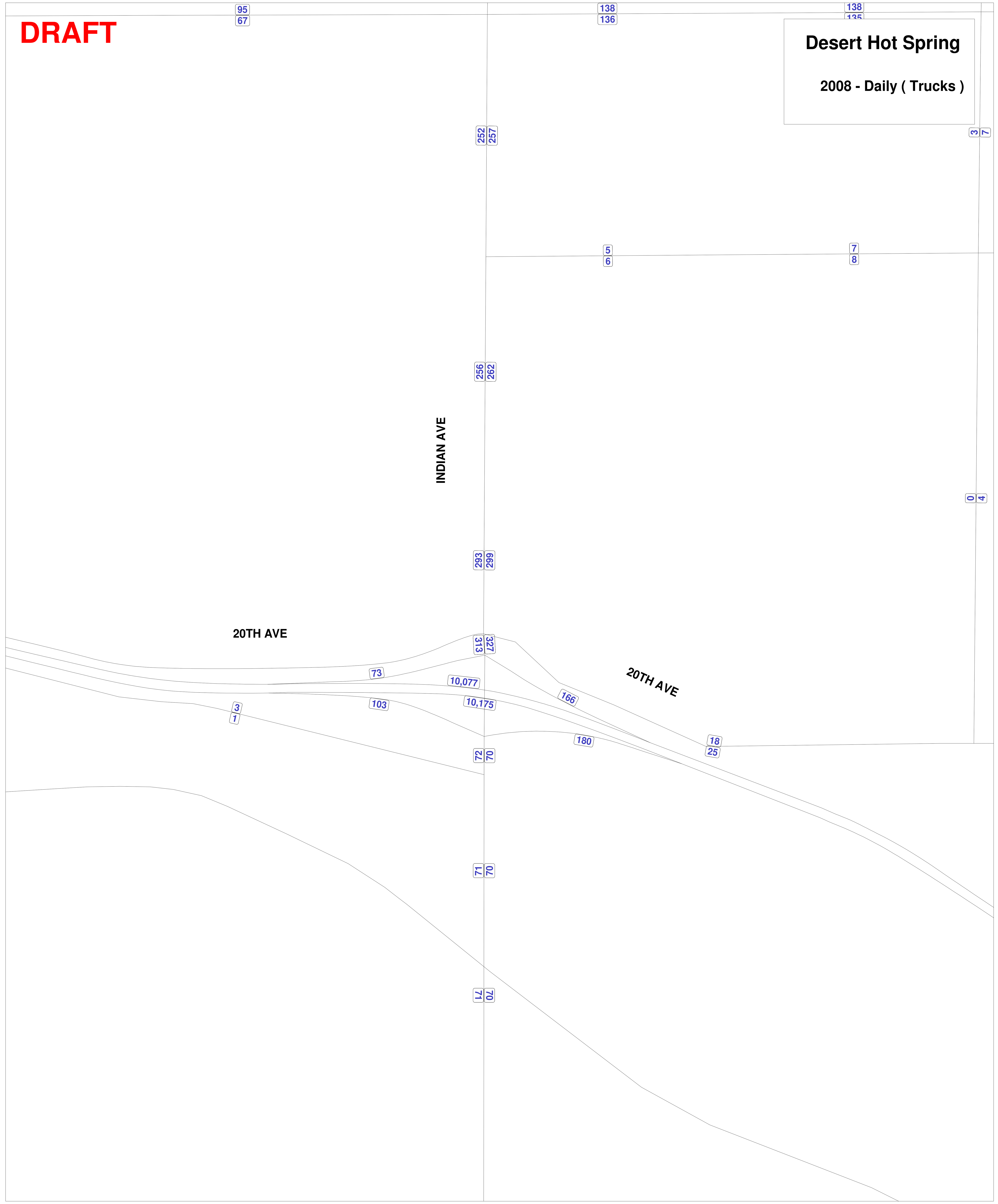
14,273 14,732
530 763

DRAFT
Desert Hot Spring
2008 - Daily (Trucks)
PIERSON BLVD
PALM DR
DESERT VIEW AVE
HACIENDA AVE
CACTUS DR
MOUNTAIN VIEW RD
64 64
102 103
72 69
44 41
87 83
37 40
17 17
0 0
5 3
70 66
34 34
3 5
55 58
11 9
12 11
41 40
38 37
119 110
7 8
5 5
7 6
123 116
13 14
21 21
7 6
11 11
130 125
137 132
9 7
23 23
148 140
7 6

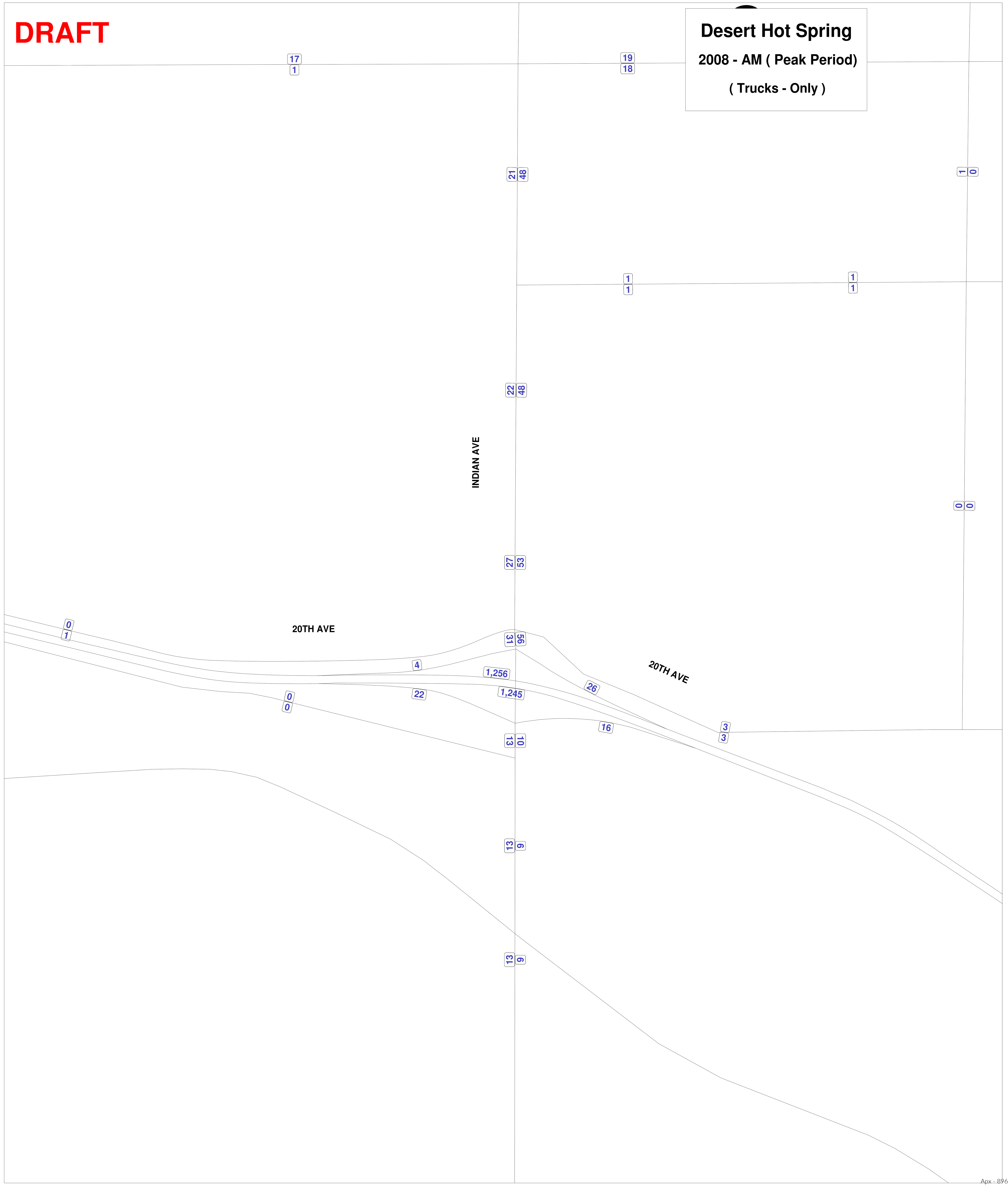

DRAFT
Desert Hot Spring
2008 - AM (Peak Period)
(Trucks - Only)
PIERSON BLVD
DESERT VIEW AVE
HACIENDA AVE
PALM DR
CACTUS DR
MOUNTAIN VIEW RD

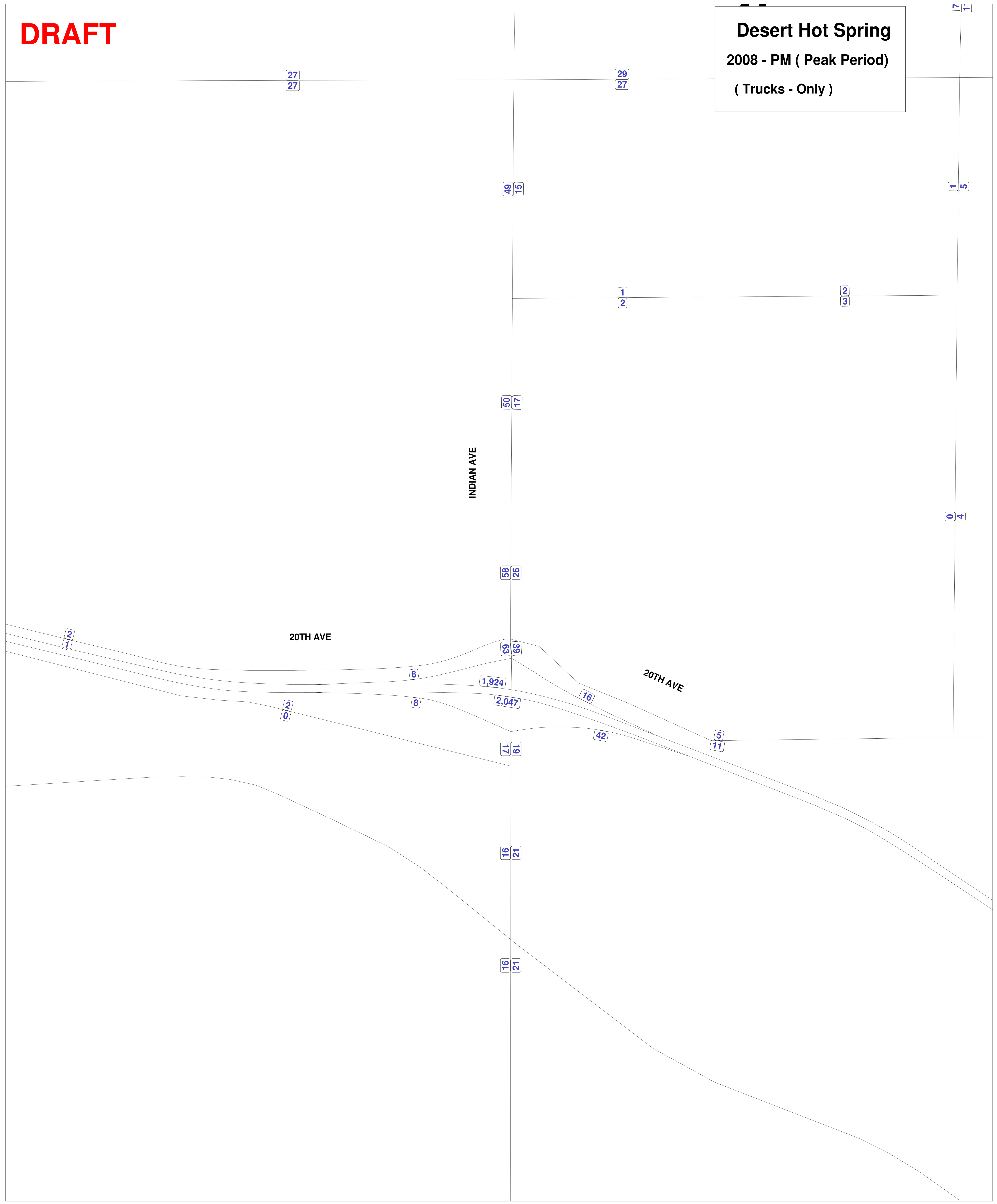

DRAFT
Desert Hot Spring
2008 - PM (Peak Period)
(Trucks - Only)
PIERSON BLVD
DESERT VIEW AVE
HACIENDA AVE
PALM DR
CACTUS DR
MOUNTAIN VIEW RD

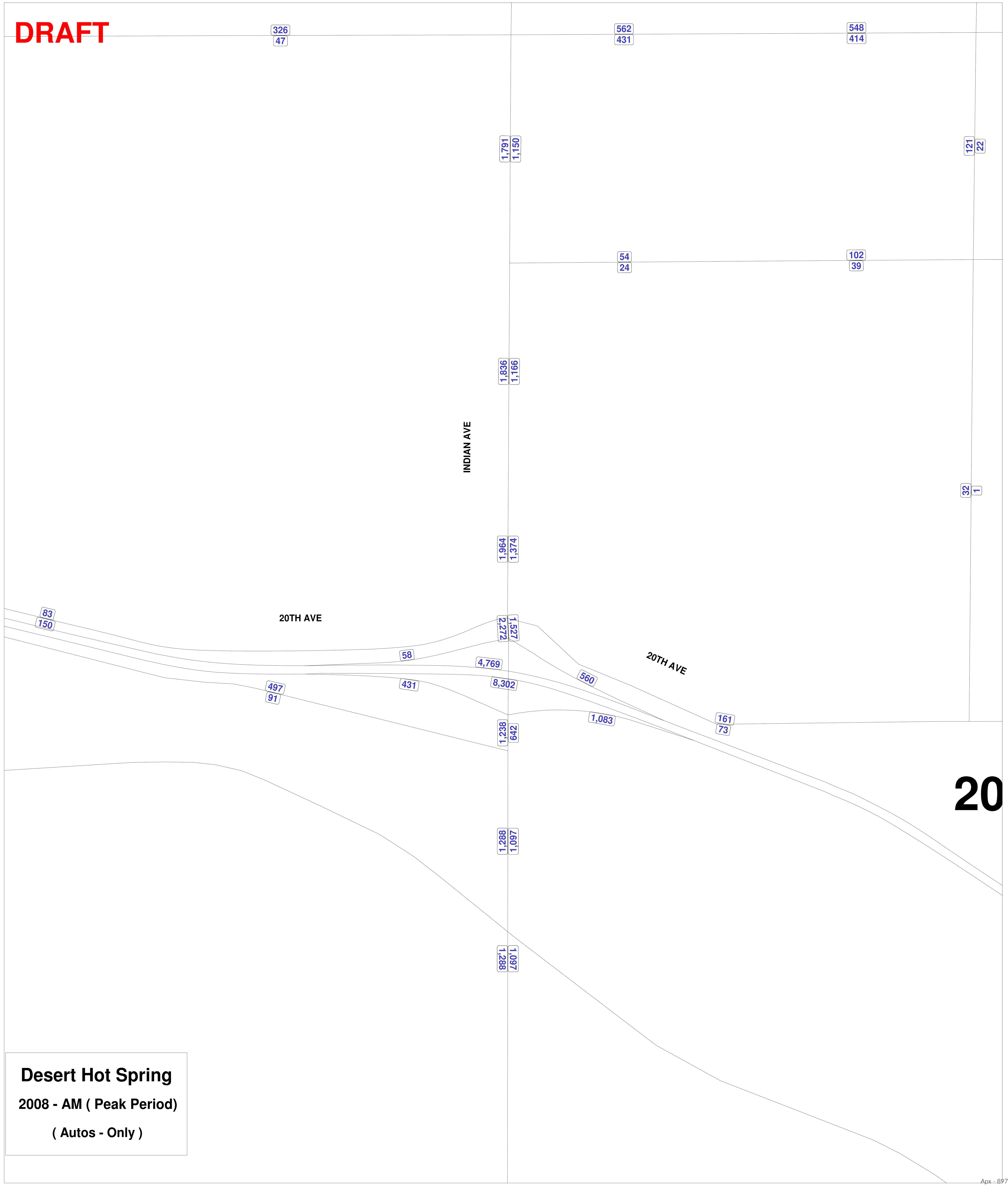

DRAFT
Desert Hot Spring
2008 - AM (Peak Period)
(Autos - Only)
PIERSON BLVD
DESERT VIEW AVE
HACIENDA AVE
PALM DR
CACTUS DR
MOUNTAIN VIEW RD
400 438
420 891
1,329 982
1,157 498
562 486
875 1,659
506 501
195 114
0 0
2 47
762 1,464
504 455
8 54
459 667
125 128
148 137
525 709
487 798
1,096 2,004
116 447
139 71
67 90
1,007 2,331
371 124
108 46
355 108
260 891
1,085 2,595
1,185 2,826
95 75
282 961

DRAFT
Desert Hot Spring
2008 - PM (Peak Period)
(Autos - Only)
PIERSON BLVD
DESERT VIEW AVE
HACIENDA AVE
PALM DR
CACTUS DR
MOUNTAIN VIEW RD
1,131 1,122
2,196 1,543
2,054 2,324
1,710 2,547
1,185 1,115
3,615 2,395
1,199 1,042
387 616
1 1
490 238
3,000 2,009
712 807
500 250
889 1,210
391 381
364 424
1,194 1,089
1,475 1,121
3,515 2,854
904 554
234 310
447 242
4,027 2,639
421 677
382 342
392 848
1,876 1,117
4,899 3,215
5,977 3,626
402 177
2,038 1,201
Apx - 894

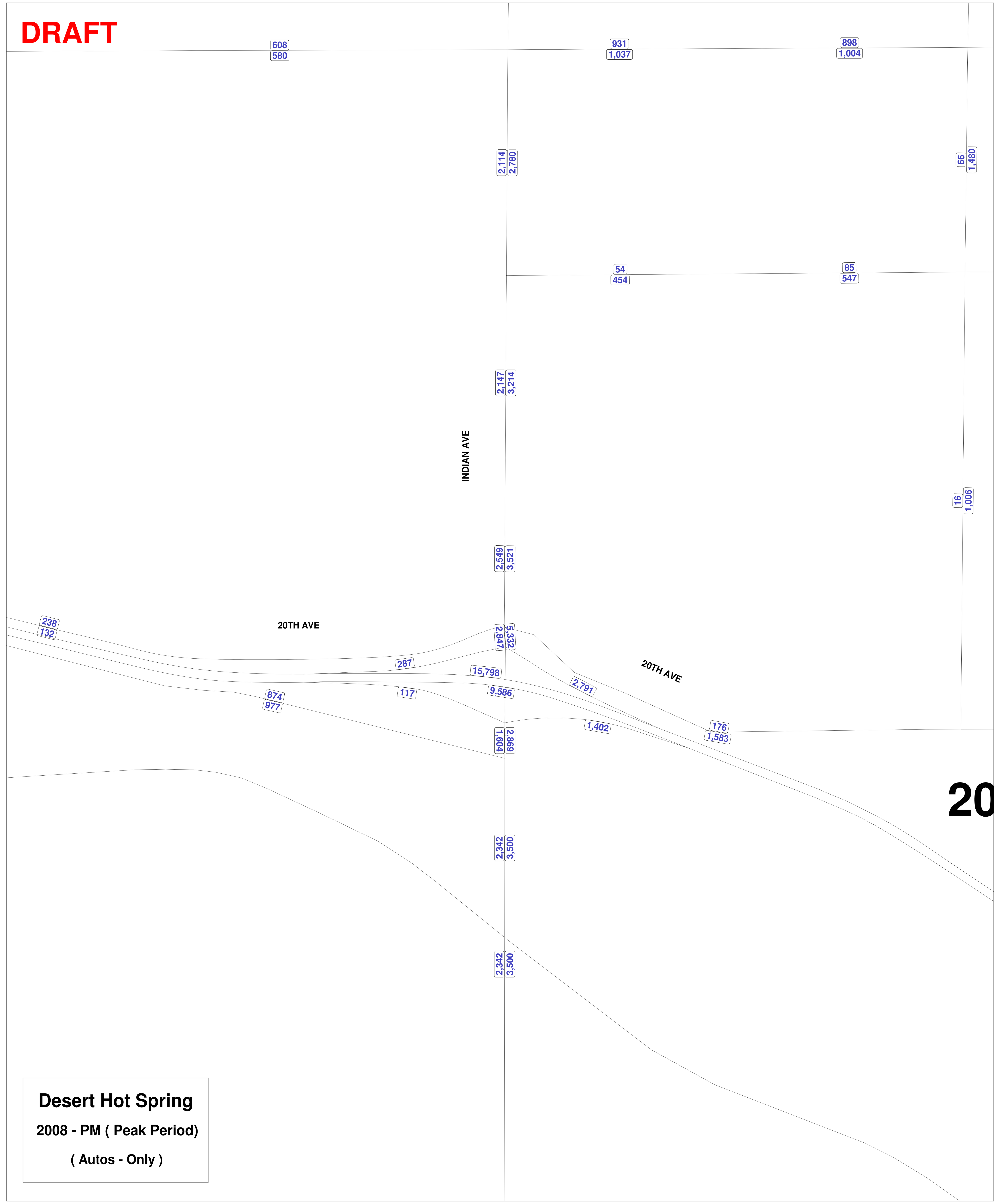

DRAFT
Desert Hot Spring
2008 - Daily (Autos)
INDIAN AVE
20TH AVE
20TH AVE
8,421
8,594
1,594
155
513
314
717
8,536
9,066
51
1,008
9,610
10,082
12,457
10,479
703
39,022
1,032
34,436
6,190
2,961
3,183
420
1,776
5,428
5,386
6,273
7,944
8,601
7,944
8,601

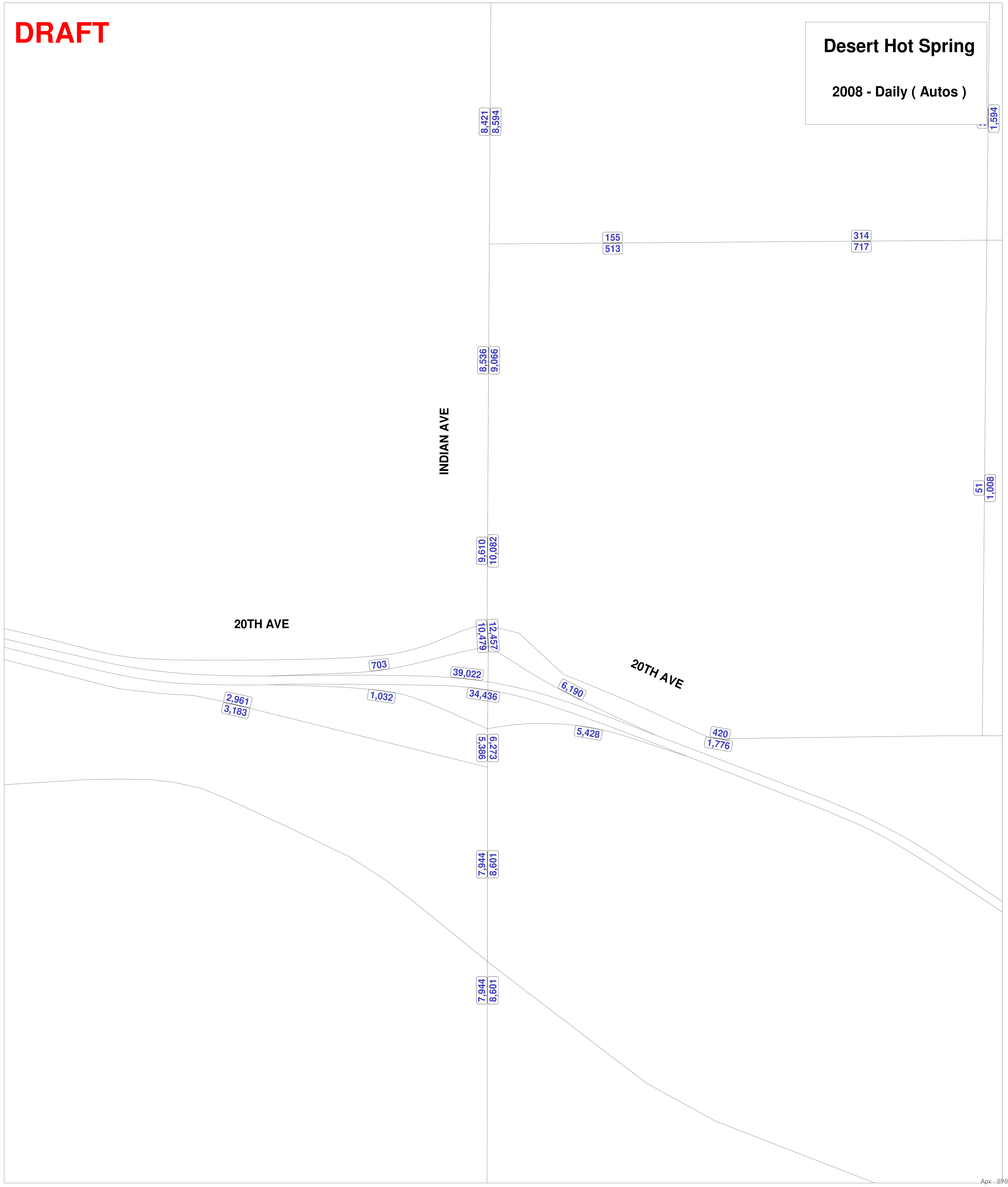

DRAFT
Desert Hot Spring
2008 - Daily (Trucks)
INDIAN AVE
20TH AVE
20TH AVE
95
67
138
136
138
252
257
3
7
5
6
7
8
256
262
0
4
293
299
313
327
73
10,077
103
10,175
166
3
1
180
18
25
72
70
71
70
71
70

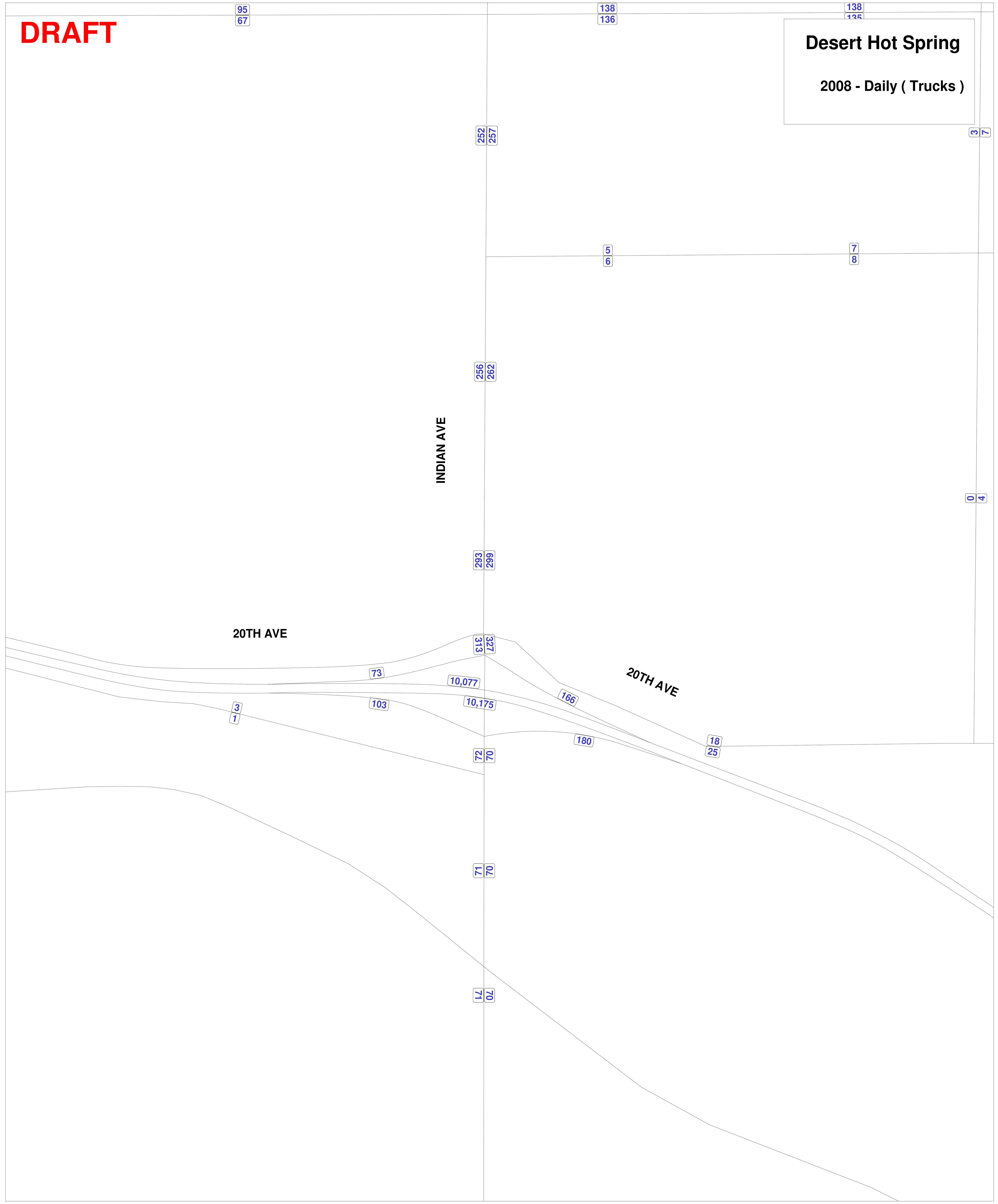

DRAFT
Desert Hot Spring
2008 - AM (Peak Period)
(Trucks - Only)
INDIAN AVE
20TH AVE
20TH AVE

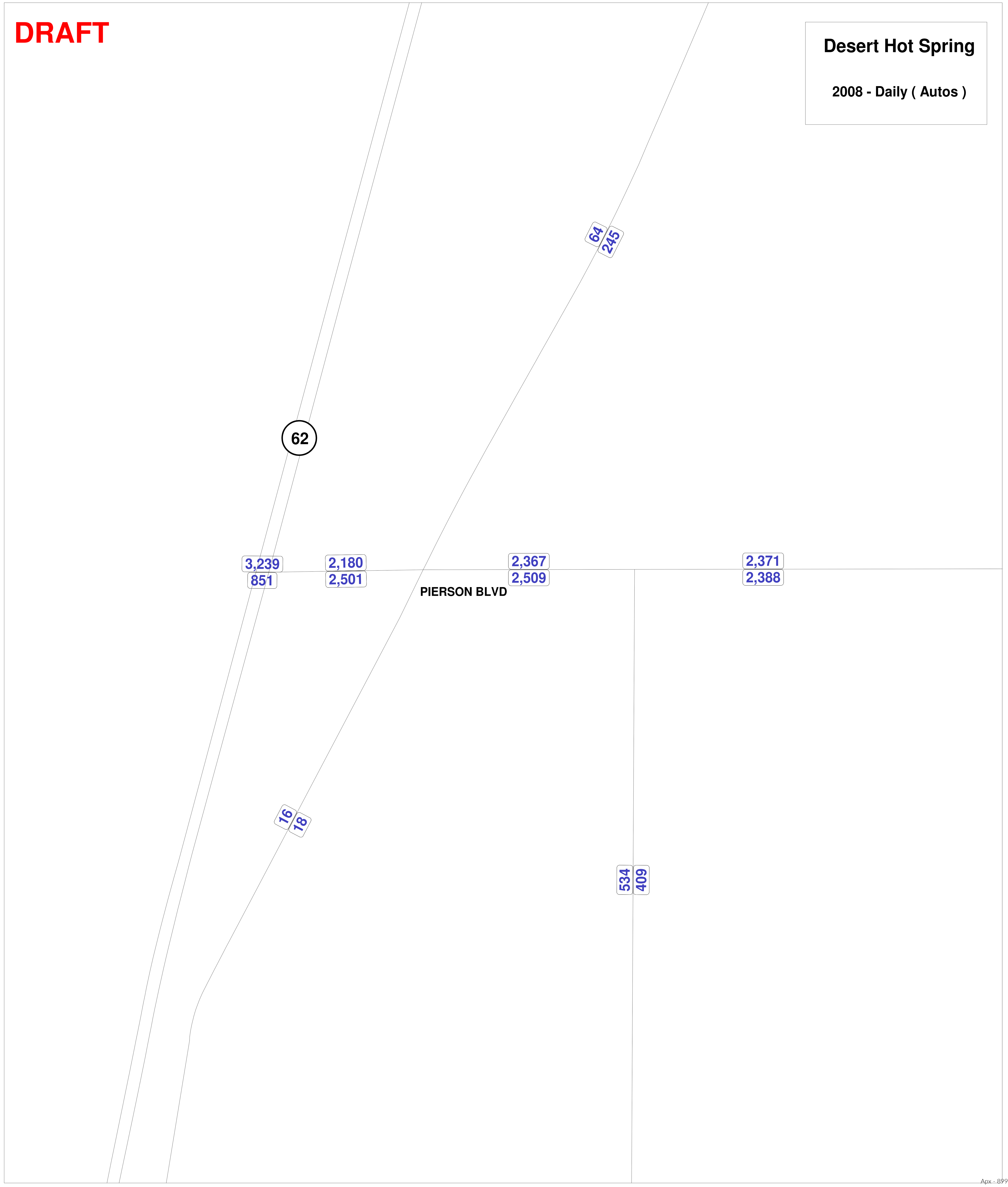

DRAFT
Desert Hot Spring
2008 - PM (Peak Period)
(Trucks - Only)
INDIAN AVE
20TH AVE
20TH AVE

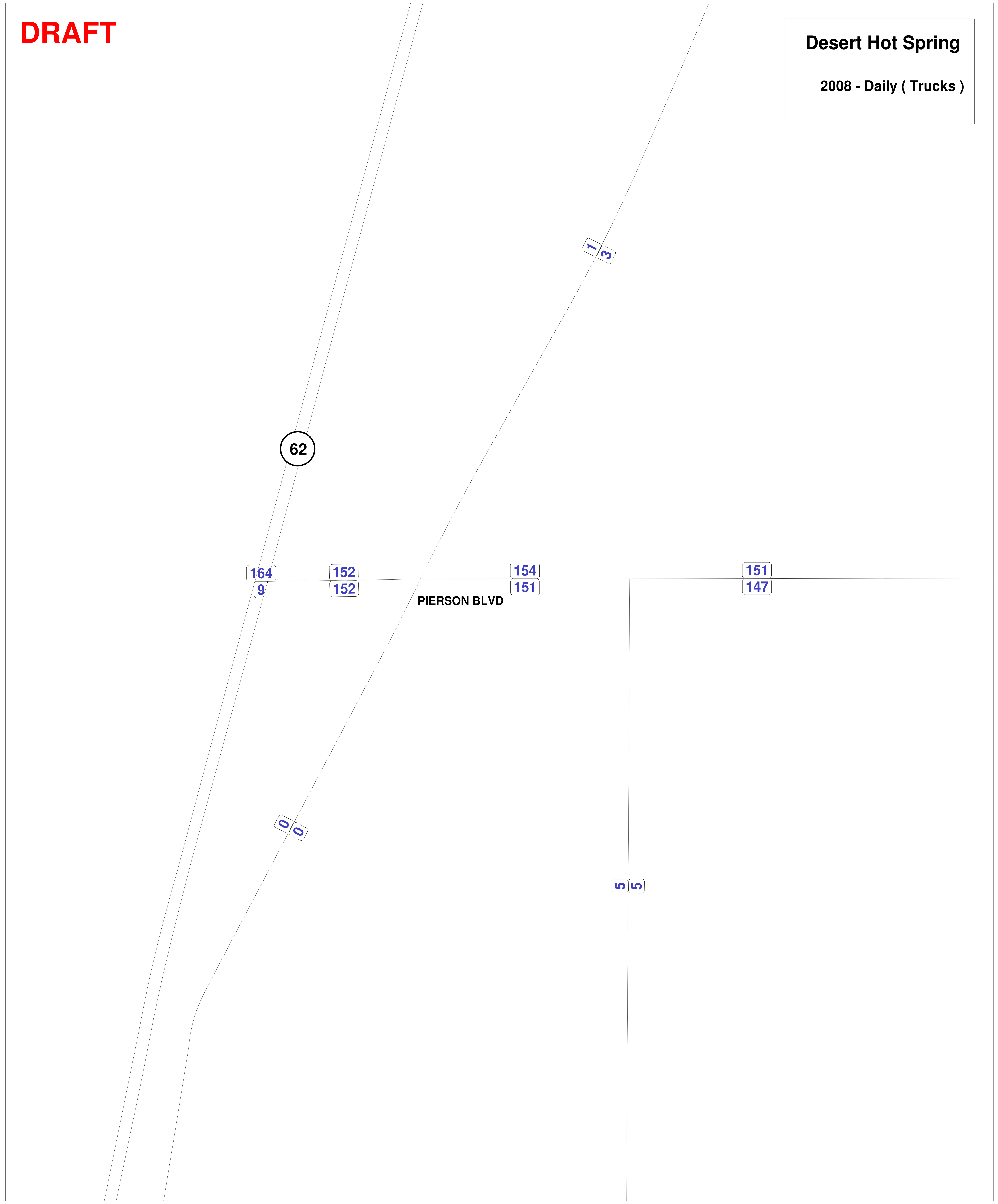

DRAFT
326
47
562
431
548
414
1,791
1,150
121
22
54
24
102
39
1,836
1,166
INDIAN AVE
32
1
1,964
1,374
83
150
20TH AVE
2,272
1,527
58
4,769
560
20TH AVE
497
91
431
8,302
1,083
161
73
1,238
642
20
1,288
1,097
1,288
1,097
Desert Hot Spring
2008 - AM (Peak Period)
(Autos - Only)

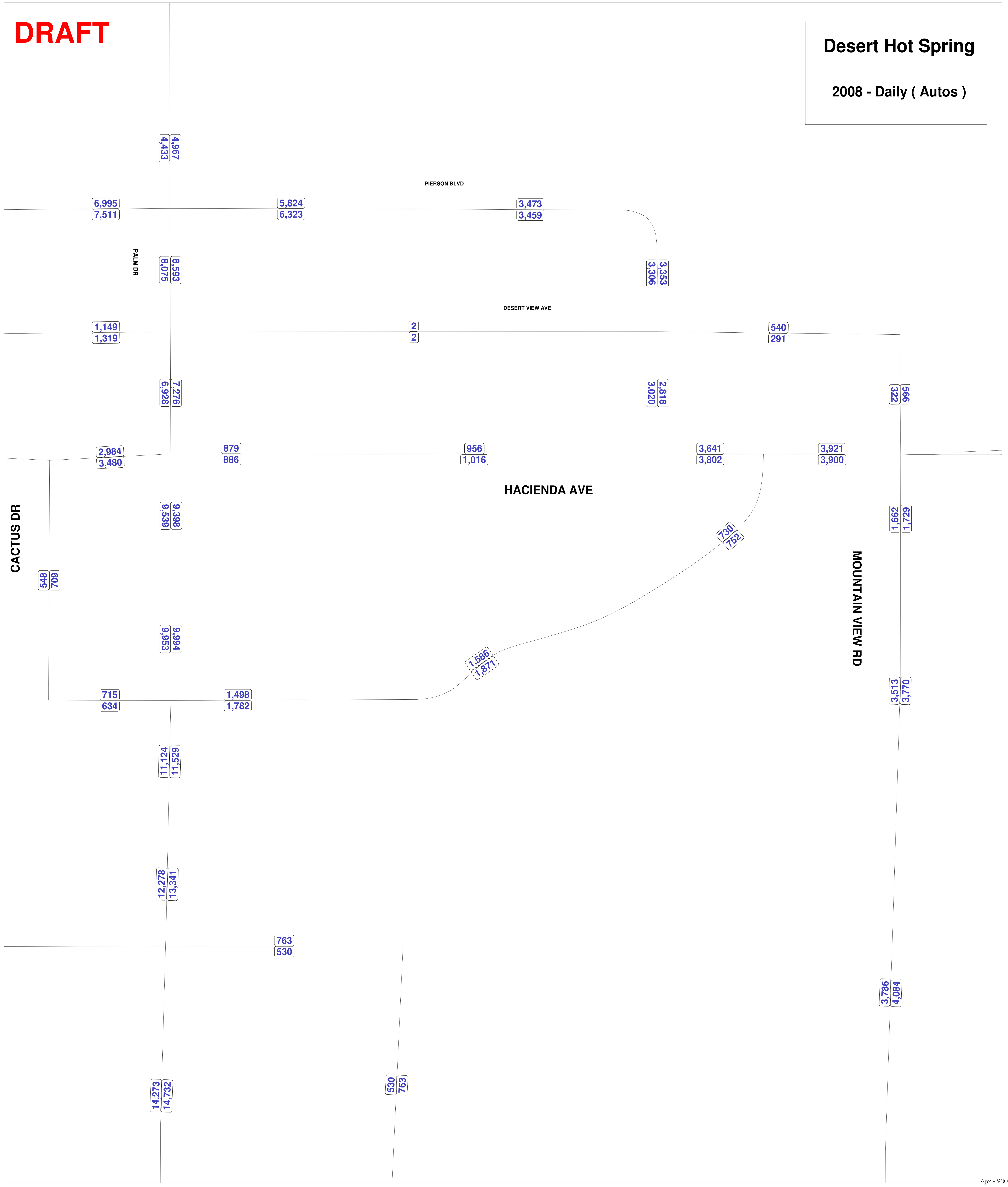

DRAFT
608
580
931
1,037
898
1,004
2,114
2,780
66
1,480
54
454
85
547
2,147
3,214
INDIAN AVE
16
1,006
2,549
3,521
238
132
20TH AVE
2,847
5,332
287
15,798
2,791
20TH AVE
874
977
117
9,586
1,402
176
1,583
1,604
2,869
20
2,342
3,500
2,342
3,500
Desert Hot Spring
2008 - PM (Peak Period)
(Autos - Only)

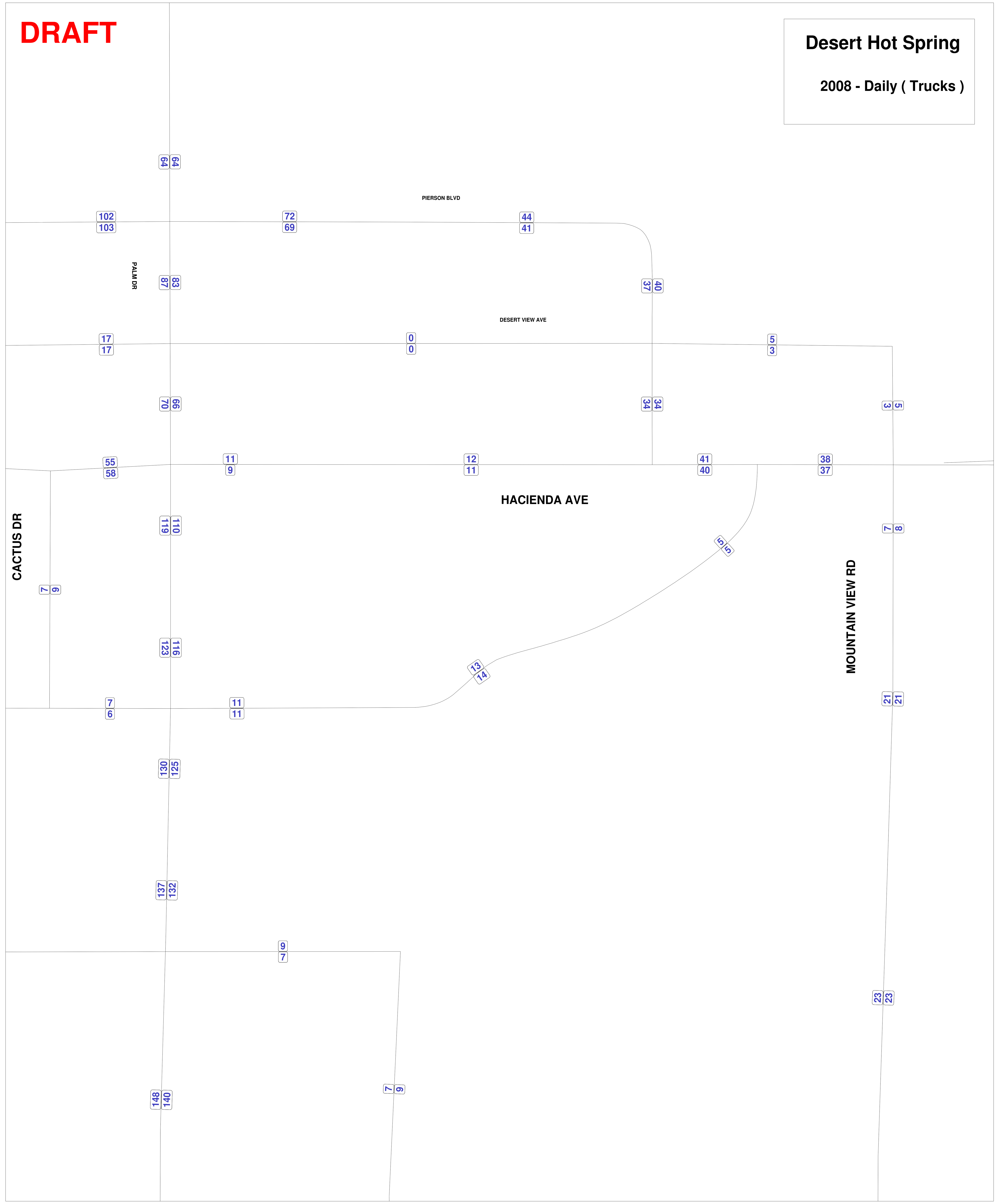

DRAFT
Desert Hot Spring
2008 - Daily (Autos)
INDIAN AVE
20TH AVE
20TH AVE
8,421
8,594
155
513
314
717
1,594
8,536
9,066
51
1,008
9,610
10,082
12,457
10,479
703
39,022
6,190
2,961
3,183
1,032
34,436
420
1,776
5,428
5,386
6,273
7,944
8,601
7,944
8,601


DRAFT
Desert Hot Spring
2008 - Daily (Trucks)
INDIAN AVE
20TH AVE
20TH AVE
95
67
138
136
138
252
257
3
7
5
6
7
8
256
262
0
4
293
299
313
327
73
10,077
166
3
1
103
10,175
18
25
180
72
70
71
70
71
70


DRAFT
Desert Hot Spring
2008 - Daily (Autos)
64
245
62
3,239
851
2,180
2,501
2,367
2,509
2,371
2,388
PIERSON BLVD
16
18
534
409


DRAFT
Desert Hot Spring
2008 - Daily (Trucks)
1
3
62
164
9
152
152
154
151
151
147
PIERSON BLVD
0
0
5
5


DRAFT
Desert Hot Spring
2008 - Daily (Autos)
PIERSON BLVD
PALM DR
DESERT VIEW AVE
HACIENDA AVE
CACTUS DR
MOUNTAIN VIEW RD
4,433 4,967
6,995 7,511
5,824 6,323
3,473 3,459
8,075 8,593
3,306 3,353
1,149 1,319
2 2
540 291
6,928 7,276
3,020 2,818
322 566
2,984 3,480
879 886
956 1,016
3,641 3,802
3,921 3,900
9,539 9,398
1,662 1,729
730 752
548 709
9,953 9,994
1,586 1,871
3,513 3,770
715 634
1,498 1,782
11,124 11,529
12,278 13,341
763 530
3,786 4,084
14,273 14,732
530 763
Apx - 900


DRAFT
Desert Hot Spring
2008 - Daily (Trucks)
PIERSON BLVD
PALM DR
DESERT VIEW AVE
HACIENDA AVE
CACTUS DR
MOUNTAIN VIEW RD
64 64
102 103
72 69
44 41
87 83
37 40
17 17
0 0
5 3
70 66
34 34
3 5
55 58
11 9
12 11
41 40
38 37
119 110
7 8
5 5
7 6
123 116
13 14
21 21
7 6
11 11
130 125
137 132
9 7
23 23
148 140
7 6

CURRENT GENERAL PLAN BUILDOUT

Desert Hot Spring

Existing General Plan

(Autos - AM Peak Period)


DRAFT
MISSION LAKES BLV
PIERSON BLVD
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
DIABLO RD
WORSLEY RD
INDIAN AVE
Two Bunch
PALM DR
DILLON RD
18TH AVE
18TH AVE
20TH AVE
VARNER RD
Desert Hot Spring
Existing General Plan
(Trucks - AM Peak Period)

Apx - 903


DRAFT
MISSION LAKES BLV
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
PIERSON BLVD
DIABLO RD
WORSLEY RD
INDIAN AVE
Two Bunch
PALM DR
DILLON RD
18TH AVE
18TH AVE
20TH AVE
VARNER RD
Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)

DRAFT
MISSION LAKES BLV
PIERSON BLVD
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
DIABLO RD
WORSLEY RD
INDIAN AVE
Two Bunch
PALM DR
DILLON RD
18TH AVE
20TH AVE
VARNER RD
Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)


DRAFT
MISSION LAKES BLV
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
PIERSON BLVD
DIABLO RD
WORSLEY RD
INDIAN AVE
TWO BUNCH PALMS
PALM DR
DILLON RD
18TH AVE
18TH AVE
20TH AVE
VARNER RD
Desert Hot Spring
Existing General Plan
(Daily - Autos)

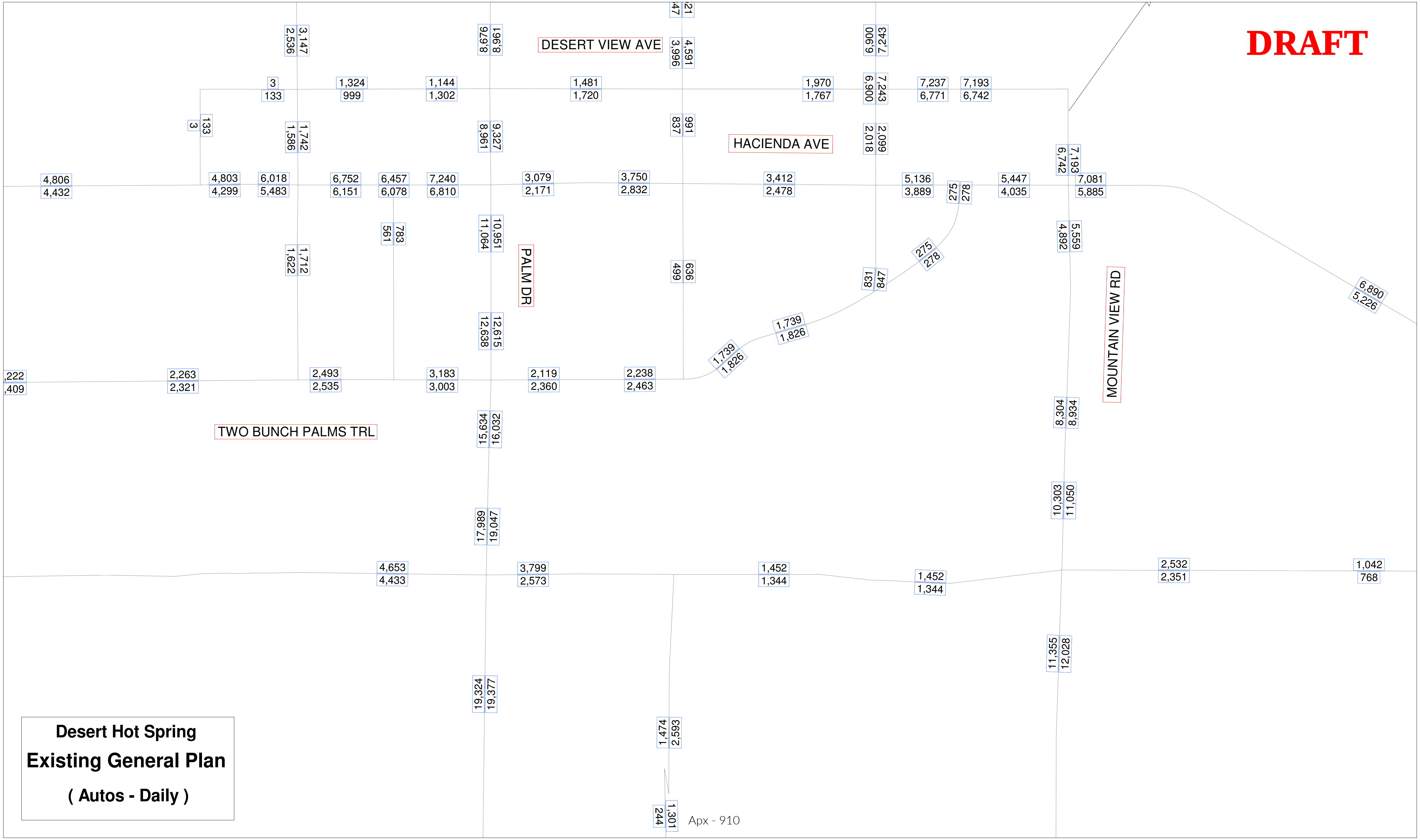

DRAFT
MISSION LAKES BLV
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
PIERSON BLVD
DIABLO RD
WORSLEY RD
INDIAN AVE
TWO BUNCH PALMS
PALM DR
DILLON RD
18TH AVE
20TH AVE
VARNER RD
Desert Hot Spring
Existing General Plan
(Daily - Truck)


DRAFT
DESERT VIEW AVE
HACIENDA AVE
PALM DR
MOUNTAIN VIEW RD
TWO BUNCH PALMS TRL
Desert Hot Spring
Existing General Plan
(Trucks - AM Peak Period)

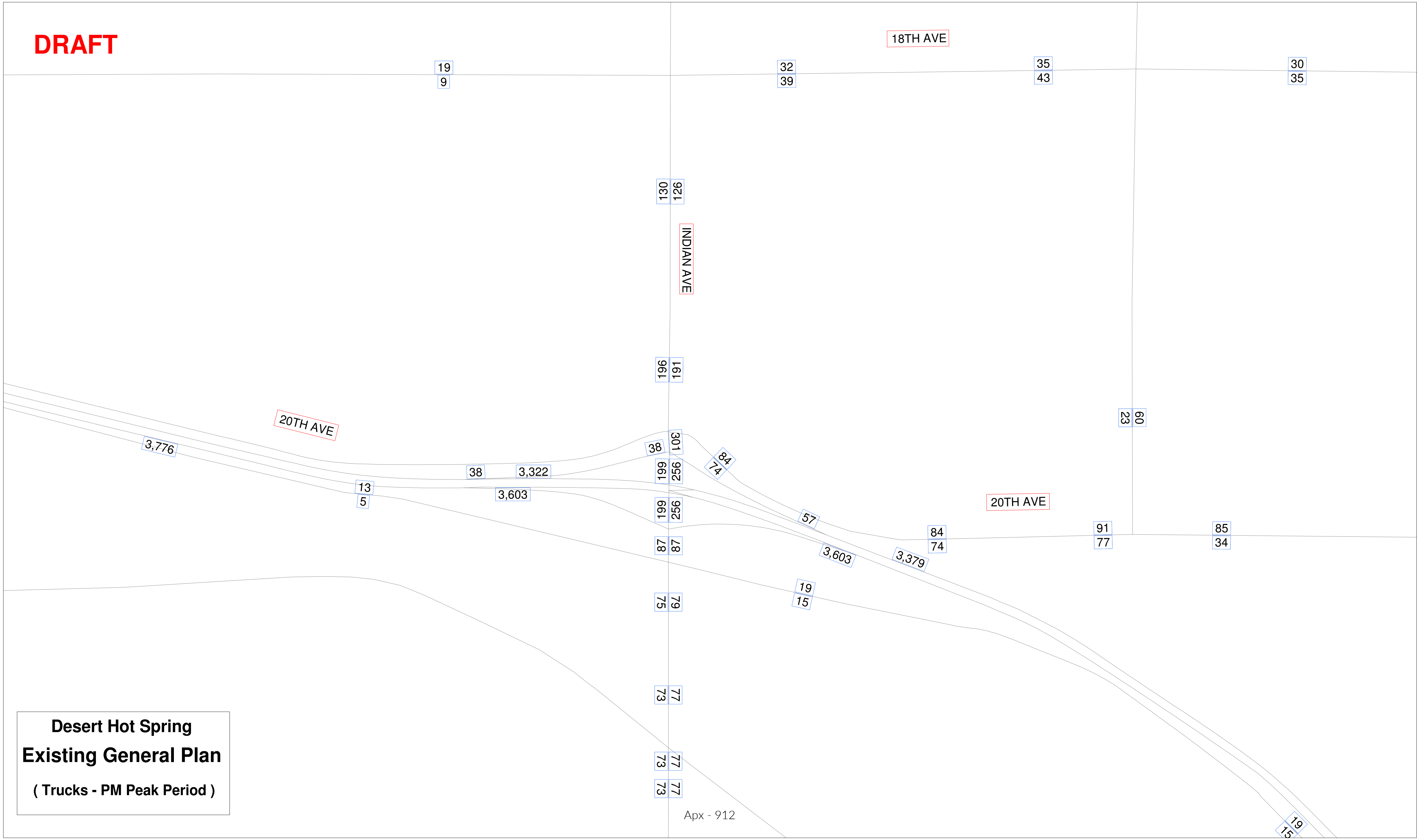
Desert Hot Spring

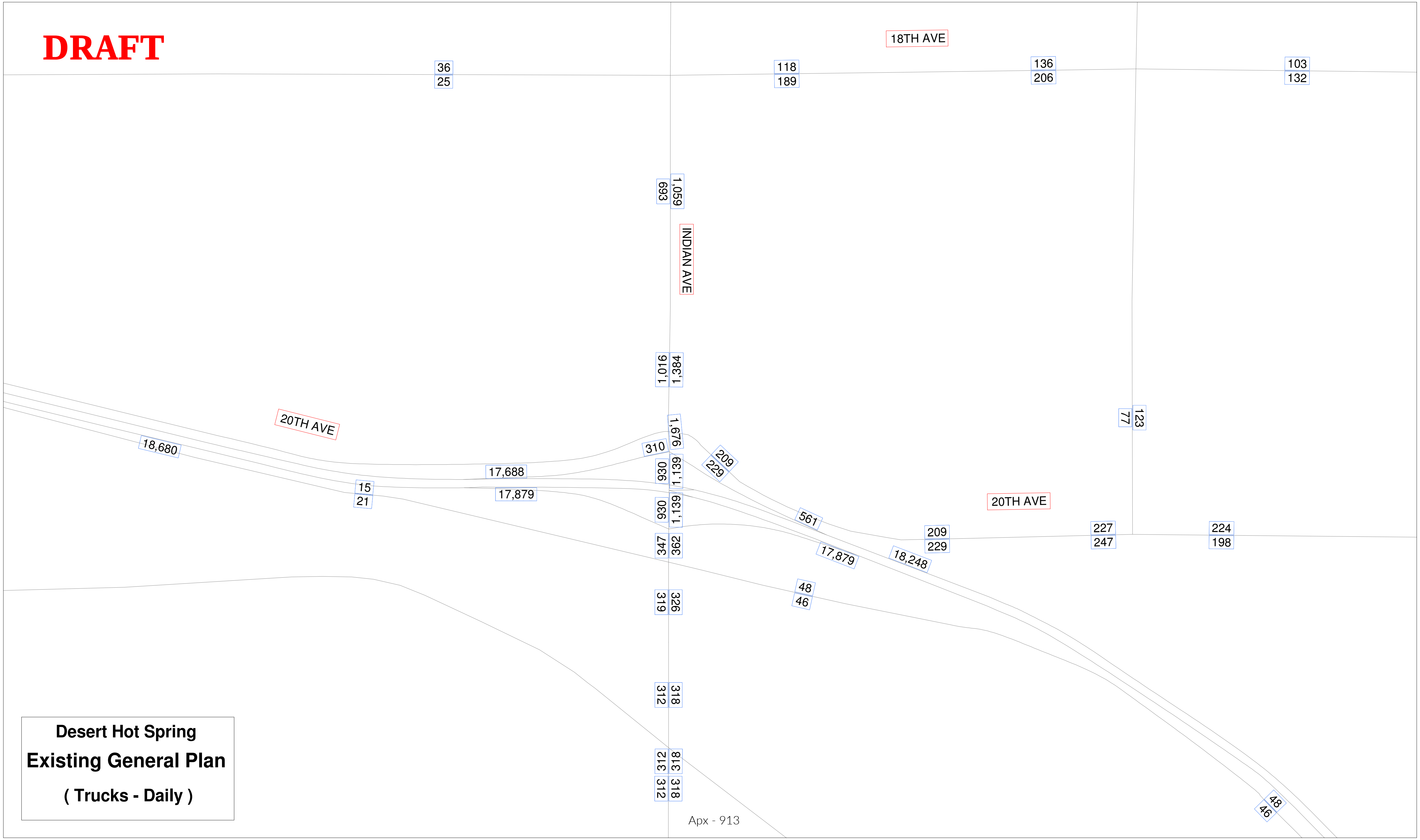
Existing General Plan

(Autos - PM Peak Period)

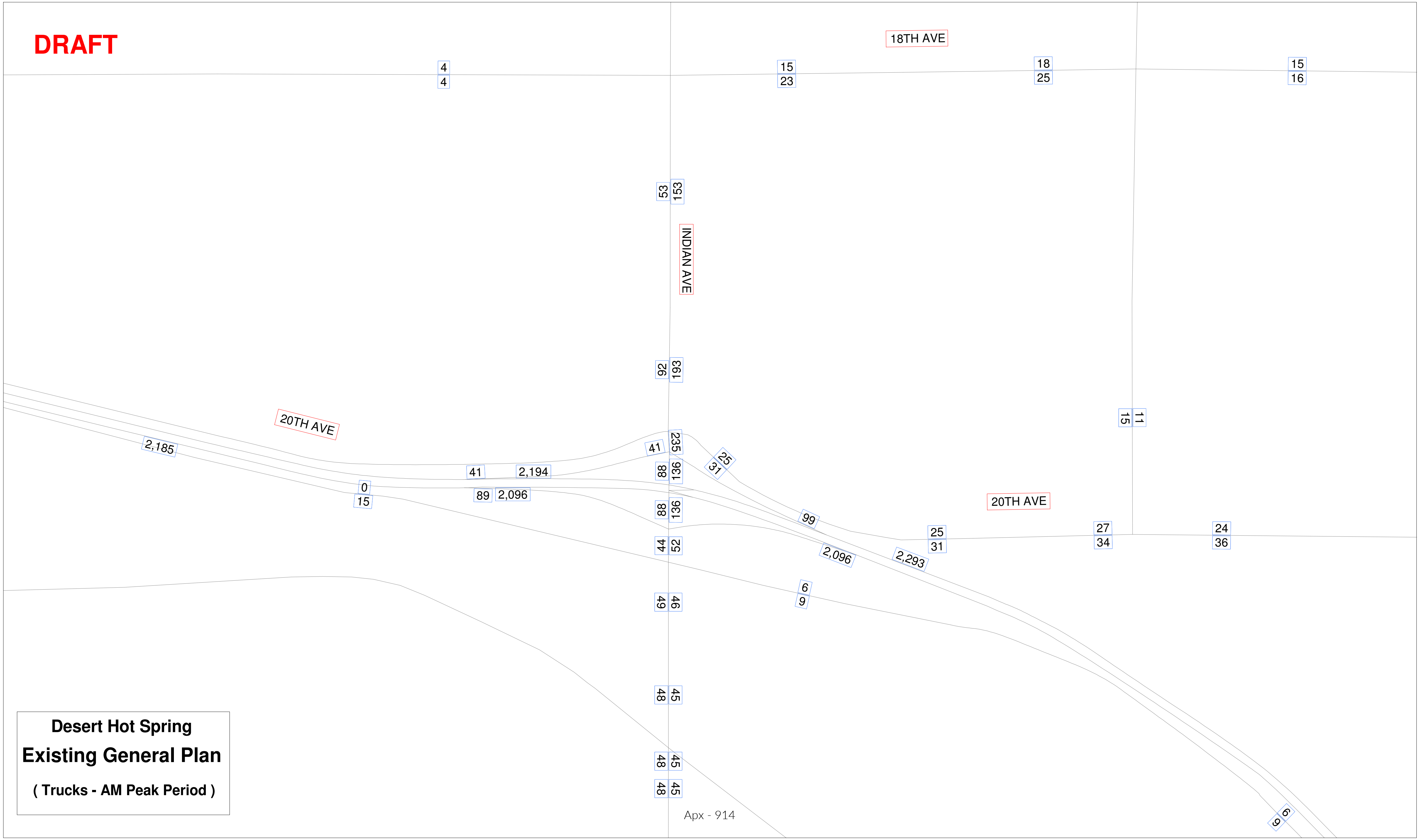

DRAFT
DESERT VIEW AVE
HACIENDA AVE
PALM DR
MOUNTAIN VIEW RD
TWO BUNCH PALMS TRL
Desert Hot Spring
Existing General Plan
(Autos - Daily)


DRAFT
DESERT VIEW AVE
HACIENDA AVE
PALM DR
MOUNTAIN VIEW RD
TWO BUNCH PALMS TRL
Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)


DRAFT
18TH AVE
19
9
32
39
35
43
30
35
130
126
INDIAN AVE
196
191
20TH AVE
3,776
38
3,322
38
301
84
74
199
256
13
5
3,603
199
256
57
20TH AVE
23
60
84
74
91
77
85
34
87
87
3,603
3,379
19
15
75
79
73
77
73
77
73
77
19
15
Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)


DRAFT
18TH AVE
INDIAN AVE
20TH AVE
20TH AVE
36
25
118
189
136
206
103
132
693
1,059
1,016
1,384
1,676
310
17,688
17,879
18,680
15
21
930
1,139
930
1,139
209
229
561
209
229
227
247
224
198
77
123
347
362
17,879
18,248
48
46
319
326
312
318
312
318
312
318
48
46
Desert Hot Spring
Existing General Plan
(Trucks - Daily)

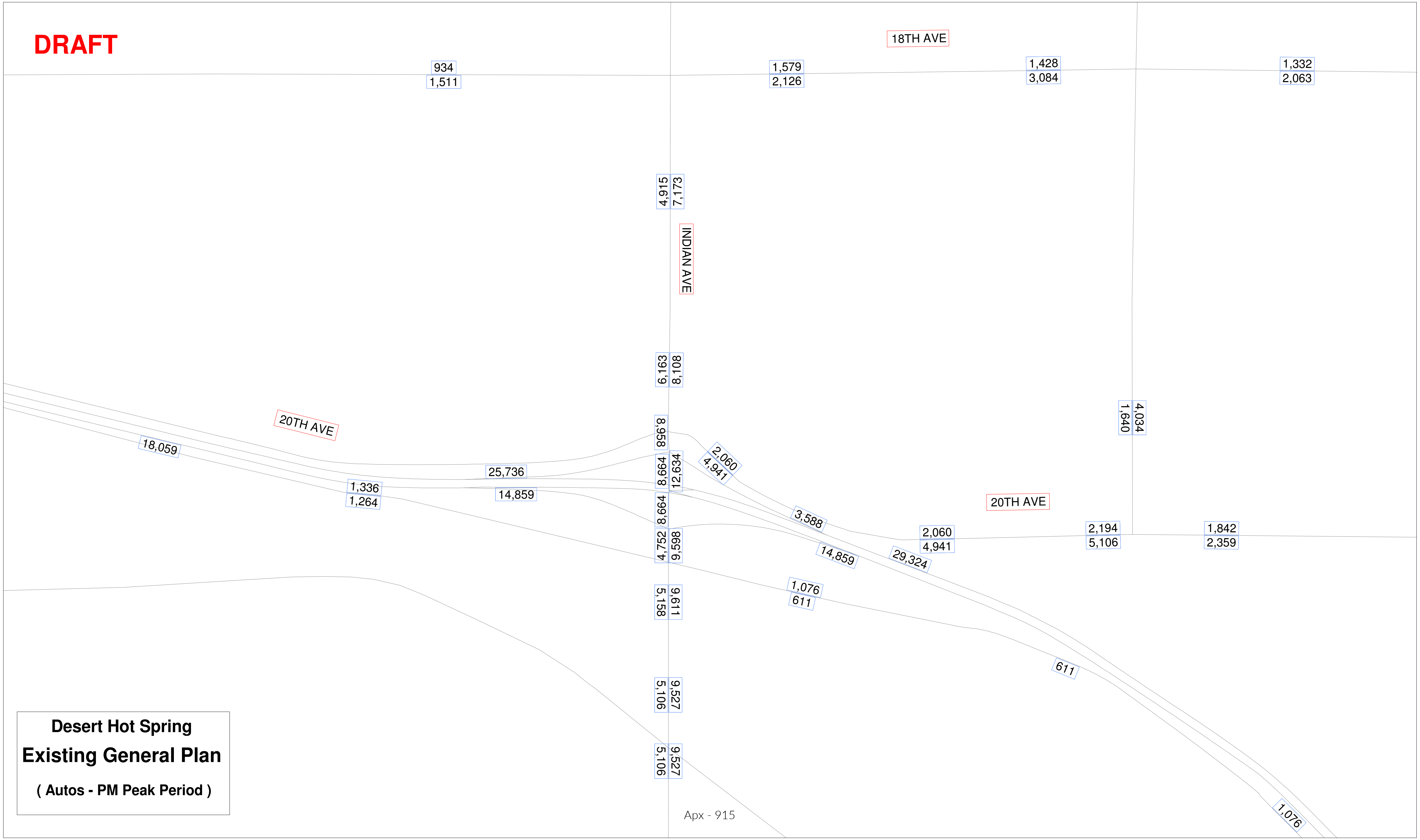
DRAFT



Desert Hot Spring

Existing General Plan

(Trucks - AM Peak Period)



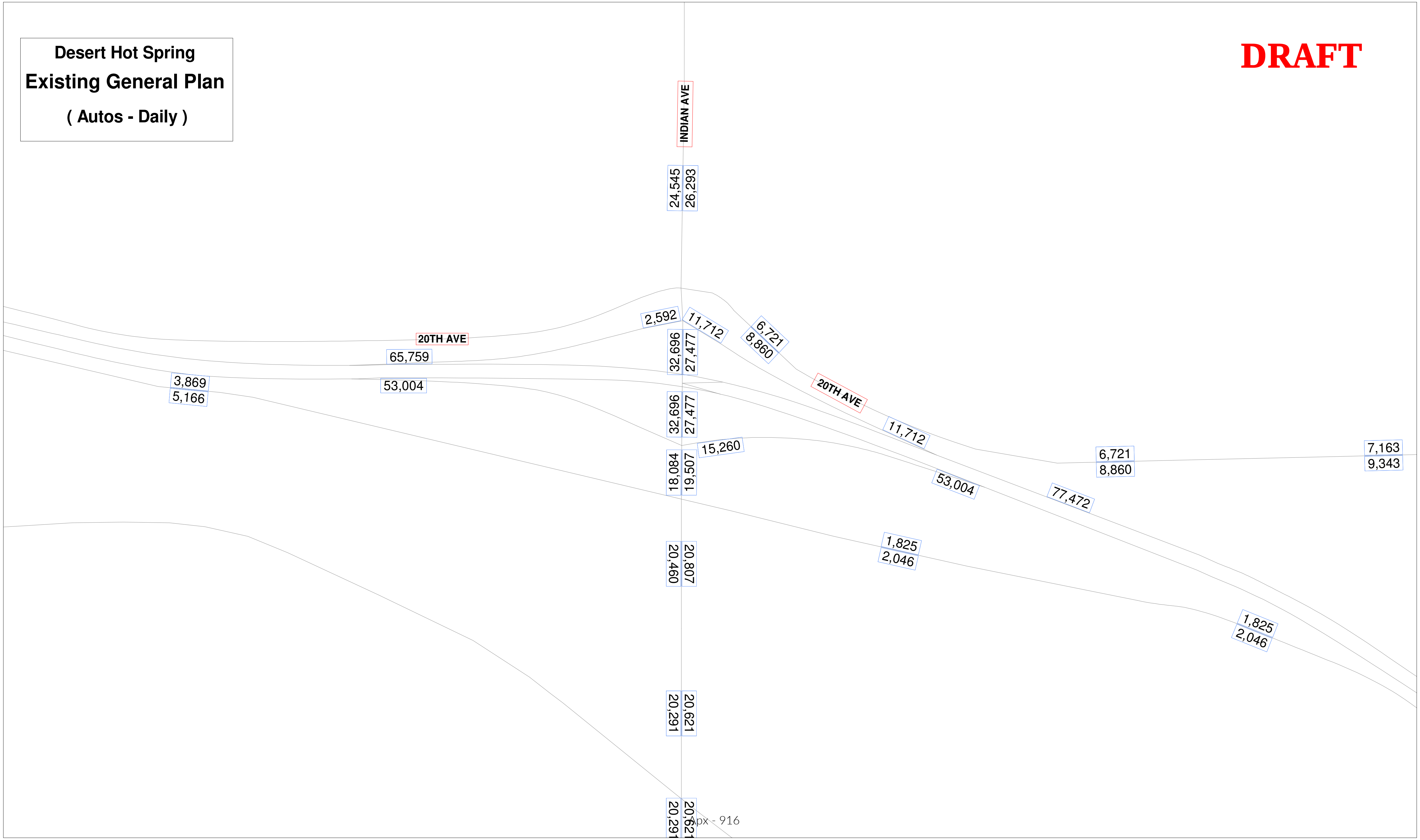
Desert Hot Spring

Existing General Plan

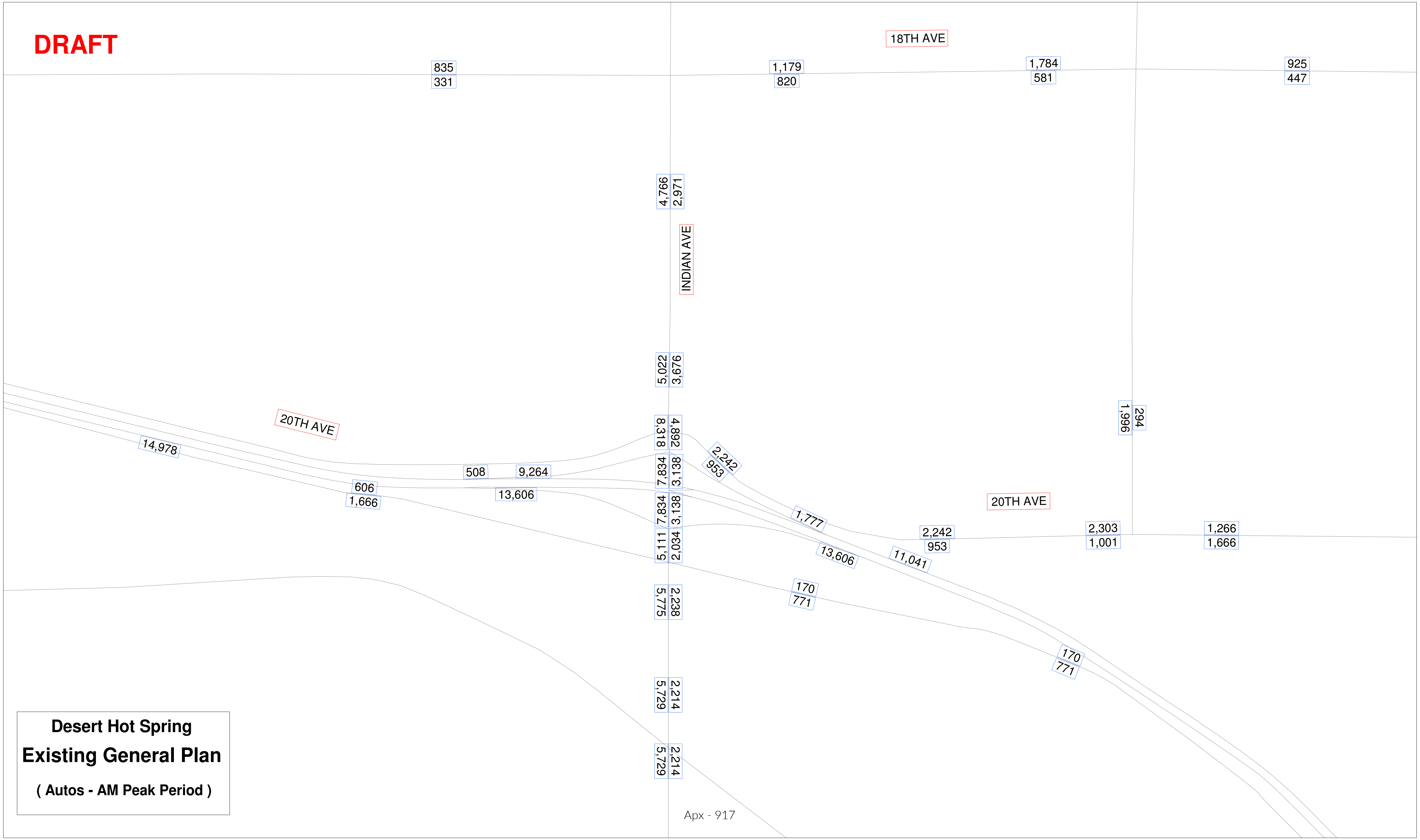
(Autos - PM Peak Period)

Desert Hot Spring
Existing General Plan
(Autos - Daily)

DRAFT



DRAFT



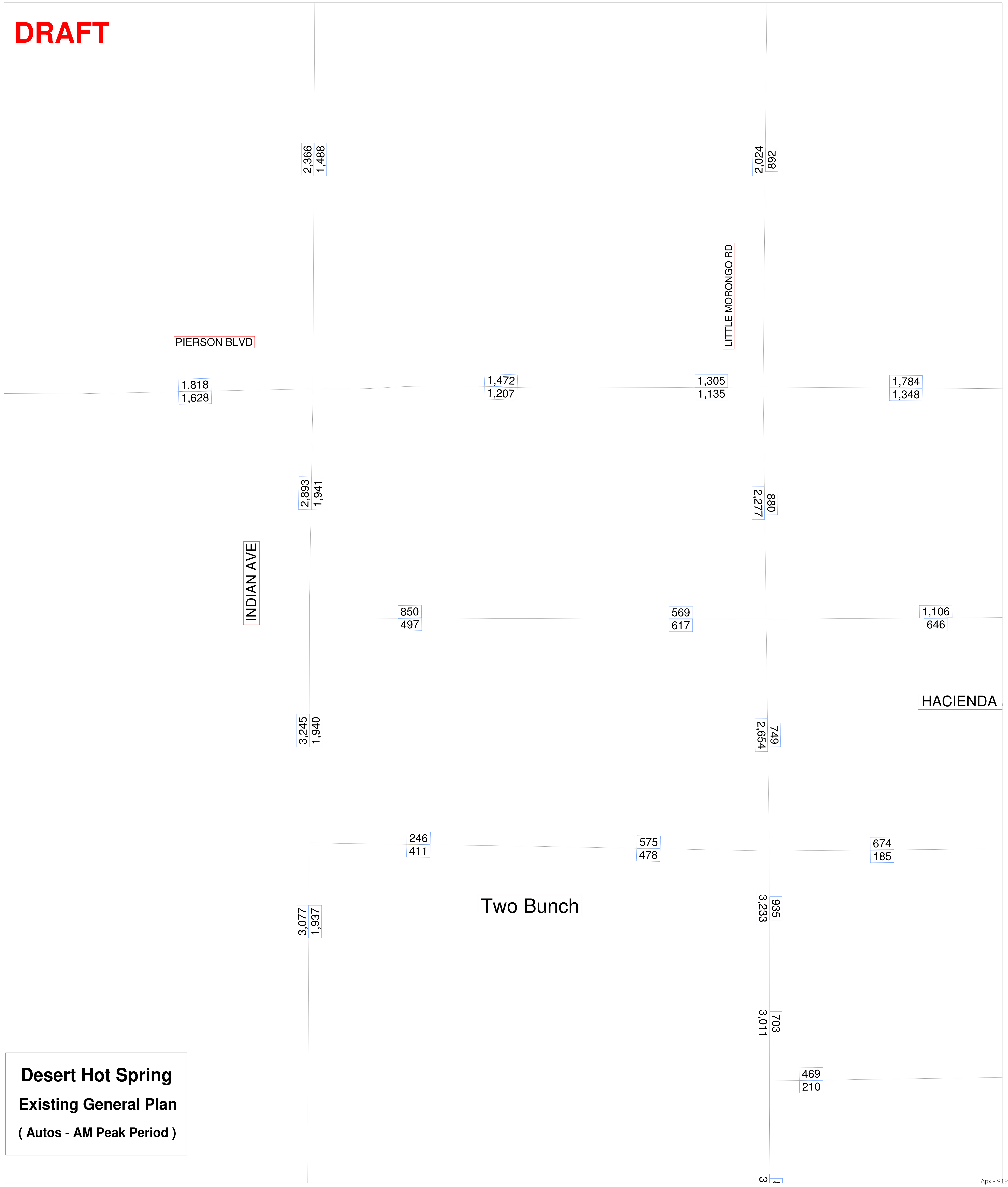
Desert Hot Spring

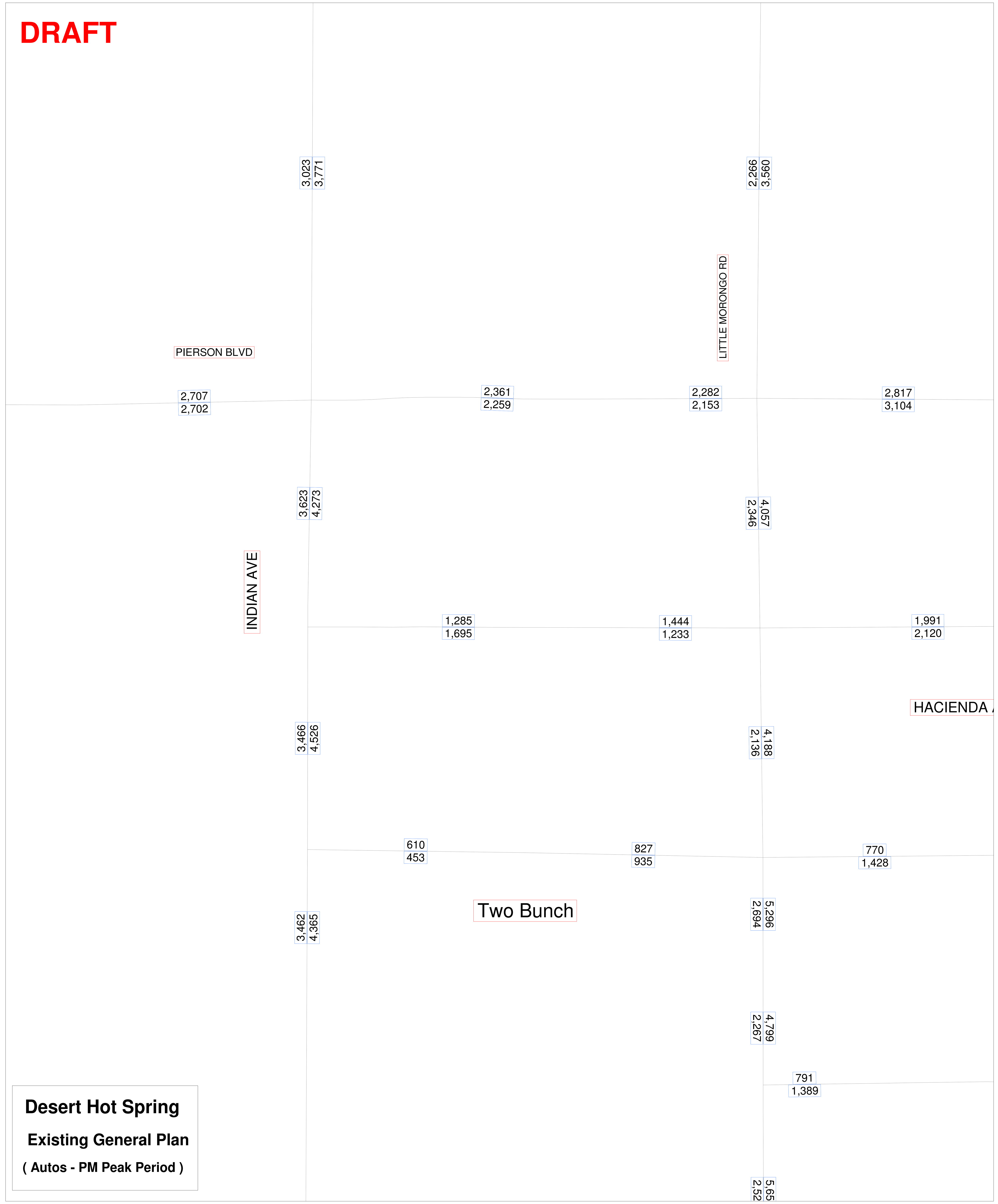
Existing General Plan

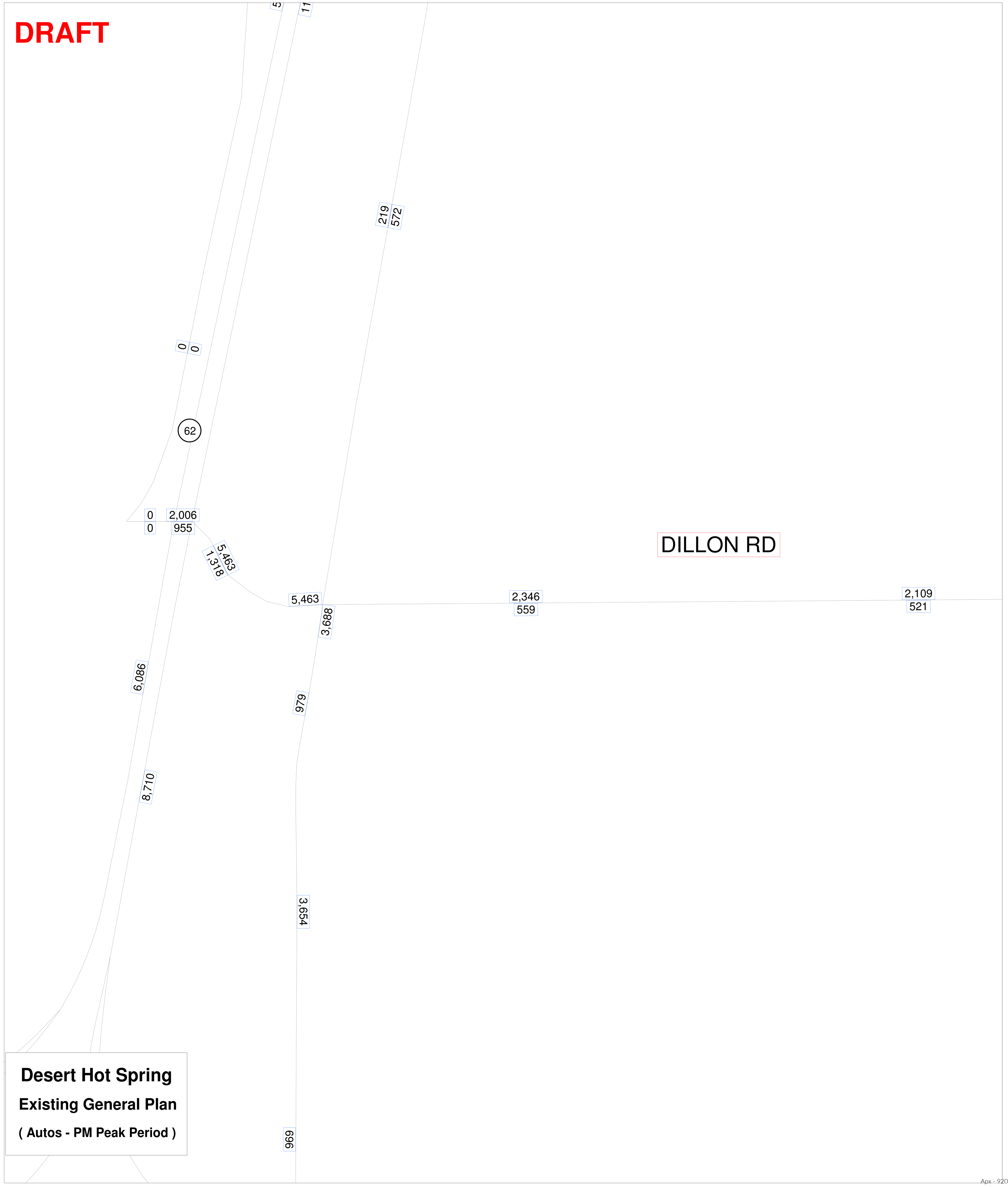
(Autos - AM Peak Period)

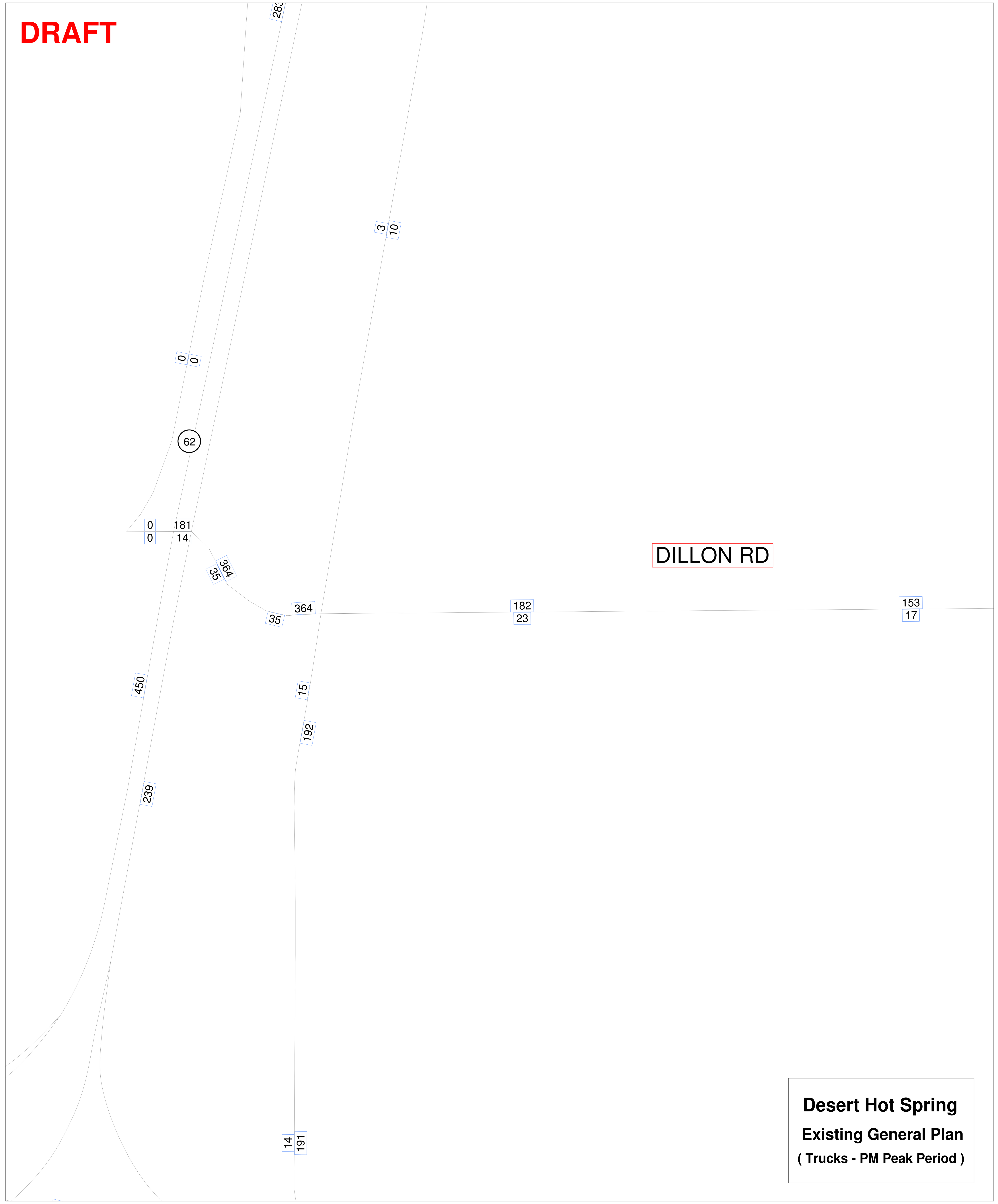

DRAFT
1,918
1,852
2,106
1,248
1,837
1,476
1,688
1,419
1,378
1,080
1,293
780
DILLON RD
669
554
587
465
538
342
349
113
184
97
PALM DR
BUBBLING WELLS RD
MOUNTAIN VIEW RD
1,289
1,499
2,085
954
2,031
1,227
1,215
1,782
1,215
1,796
20TH AVE
VARNER RD
652
1,316
836
1,063
836
1,063
Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)


DRAFT
3,510
3,069
2,496
3,194
2,615
2,844
3,260
2,628
2,155
2,837
1,435
2,189
DILLON RD
1,322
1,562
1,145
1,507
835
1,220
509
911
270
344
PALM DR
BUBBLING WELLS RD
MOUNTAIN VIEW RD
525
351
1,655
3,713
1,998
3,807
3,379
2,195
3,389
2,195
20TH AVE
VARNER RD
2,605
1,677
2,422
1,885
2,422
1,885
Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)

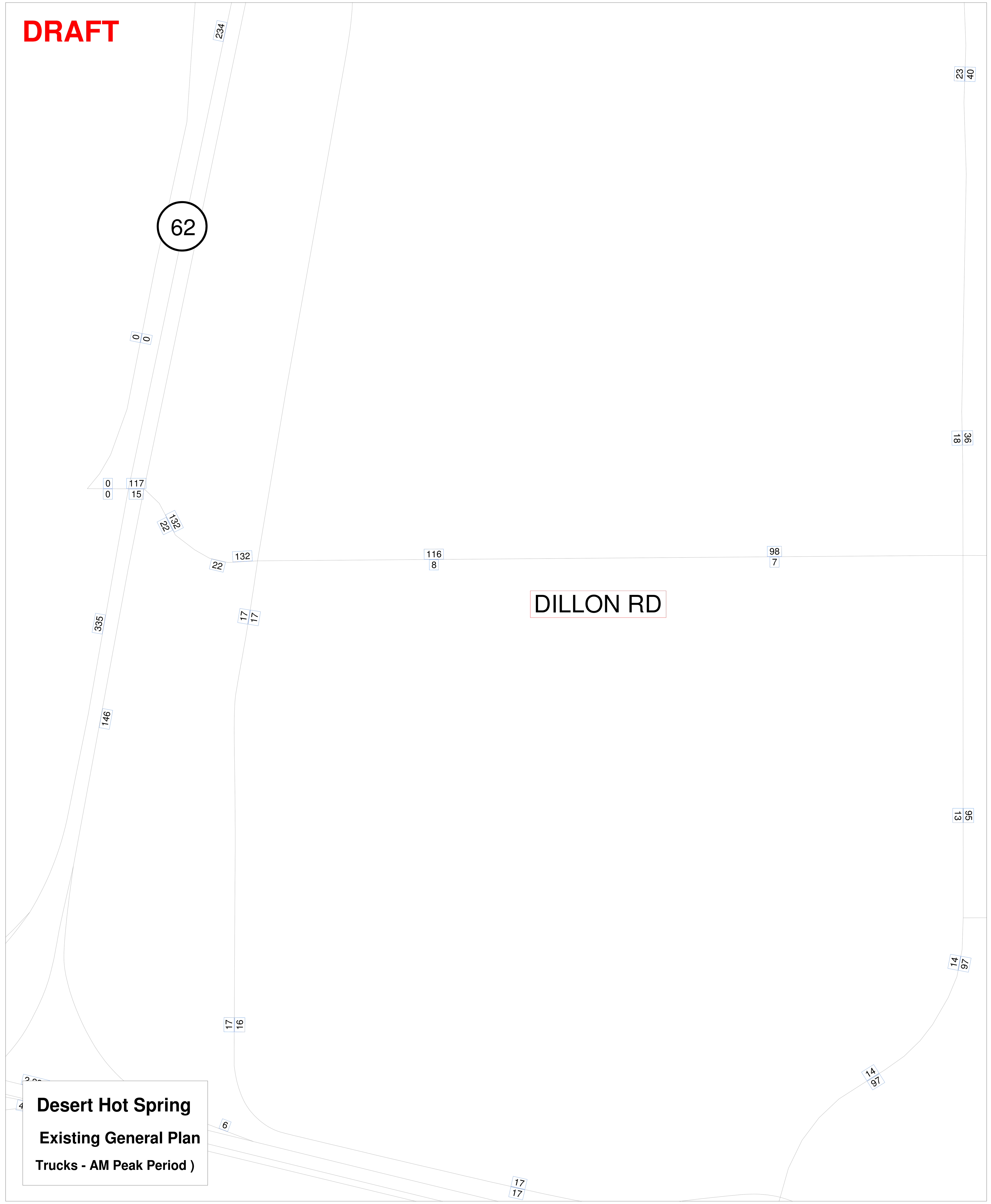

DRAFT
PIERSON BLVD
LITTLE MORONGO RD
INDIAN AVE
HACIENDA
Two Bunch
2,366 1,488
2,024 292
1,818 1,628
1,472 1,207
1,305 1,135
1,784 1,348
2,893 1,941
2,277 880
850 497
569 617
1,106 646
3,245 1,940
2,654 749
246 411
575 478
674 185
3,077 1,937
3,233 935
3,011 703
469 210
Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)


DRAFT
PIERSON BLVD
LITTLE MORONGO RD
INDIAN AVE
HACIENDA
Two Bunch
3,023 3,771
2,266 3,090
2,707 2,702
2,361 2,259
2,282 2,153
2,817 3,104
3,623 4,273
2,346 4,057
1,285 1,695
1,444 1,233
1,991 2,120
3,466 4,526
2,136 4,188
610 453
827 935
770 1,428
3,462 4,365
2,694 5,296
2,267 4,799
791 1,389
Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)

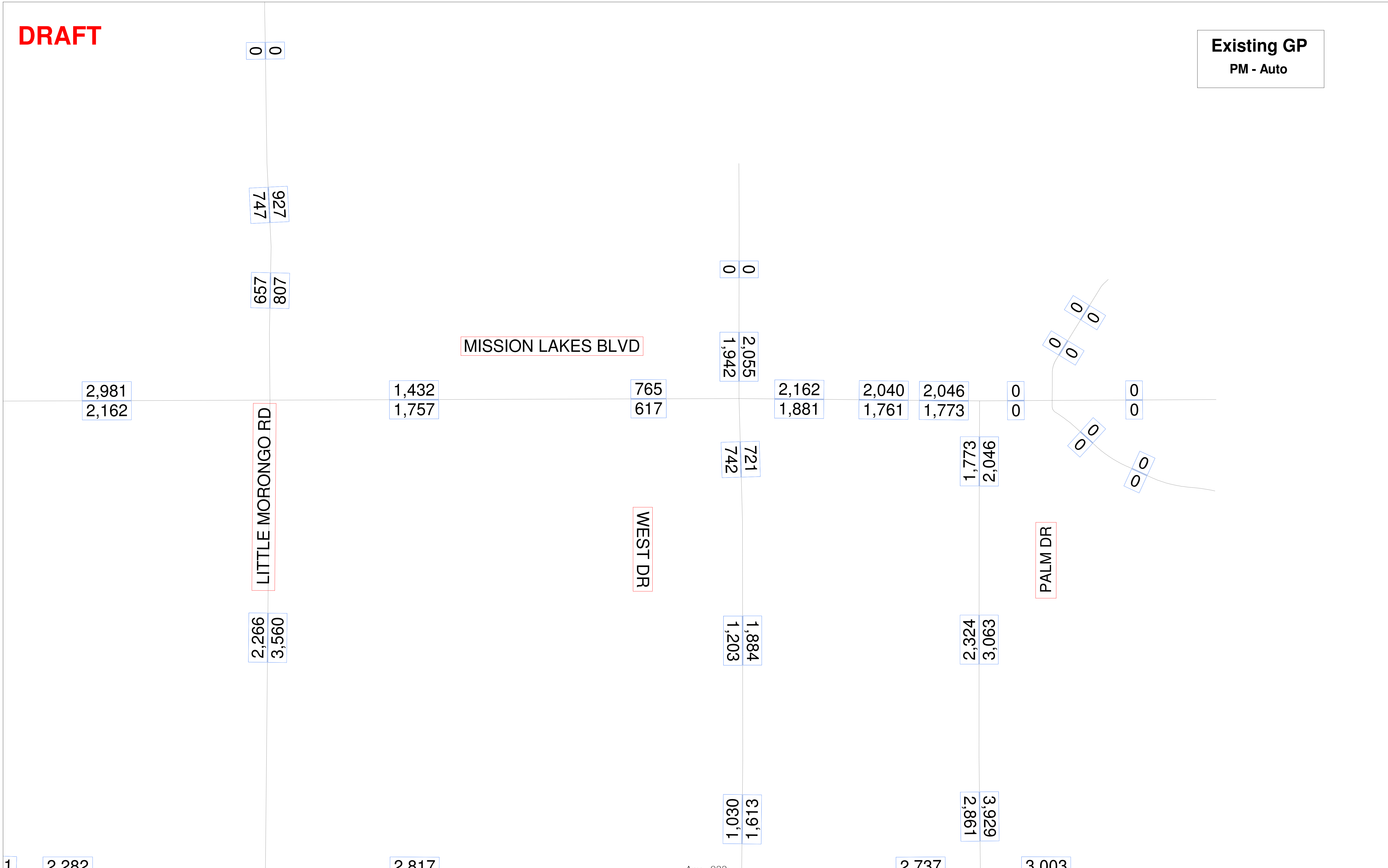

DRAFT
DILLON RD
62
0
0
2,006
955
5,463
1,318
5,463
2,346
559
2,109
521
219
572
0
0
3,688
979
6,086
8,710
3,654
969
Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)

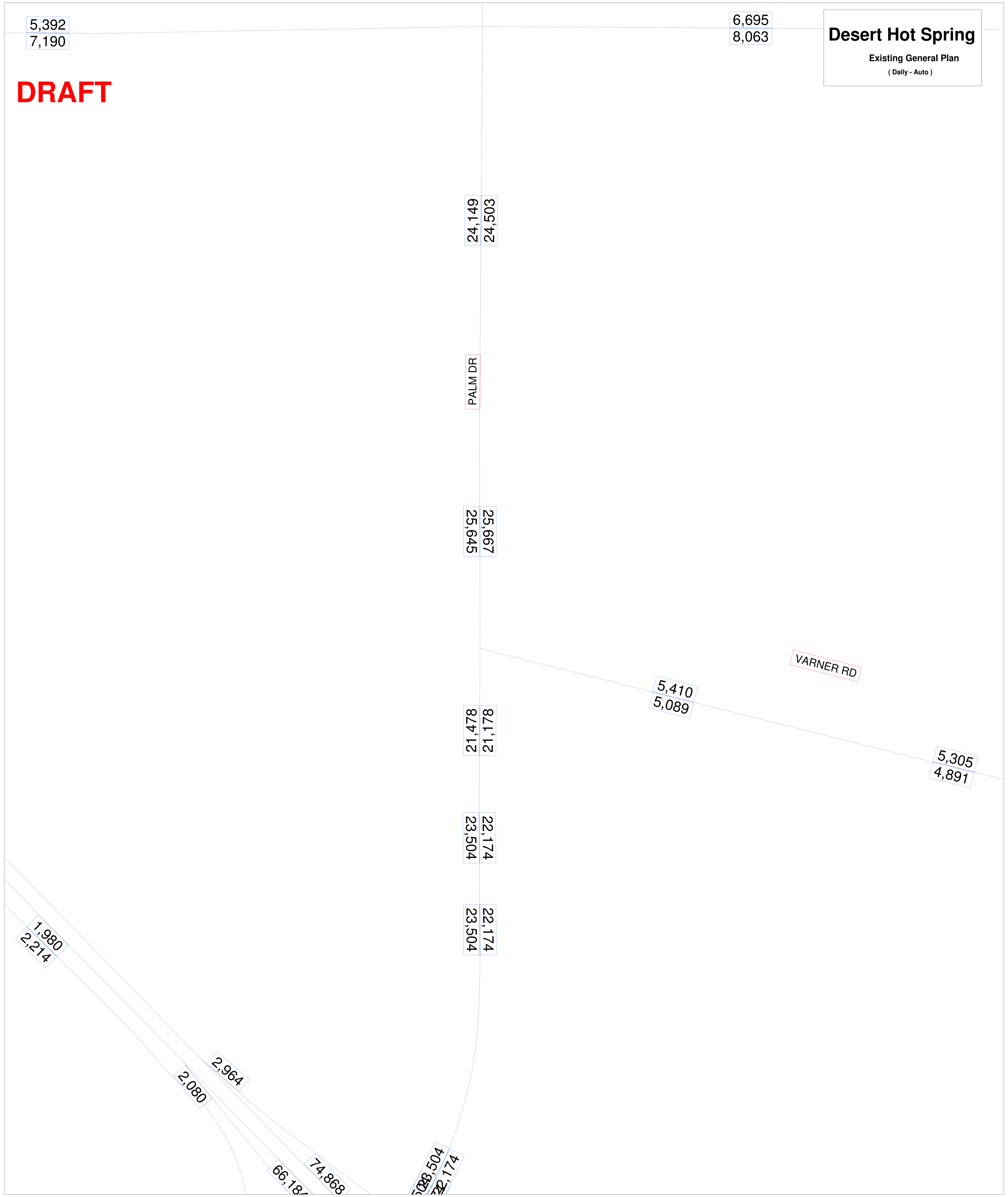

DRAFT
DILLON RD
62
0
0
181
14
364
35
35
364
182
23
153
17
3
10
0
0
15
192
450
239
14
191
Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)

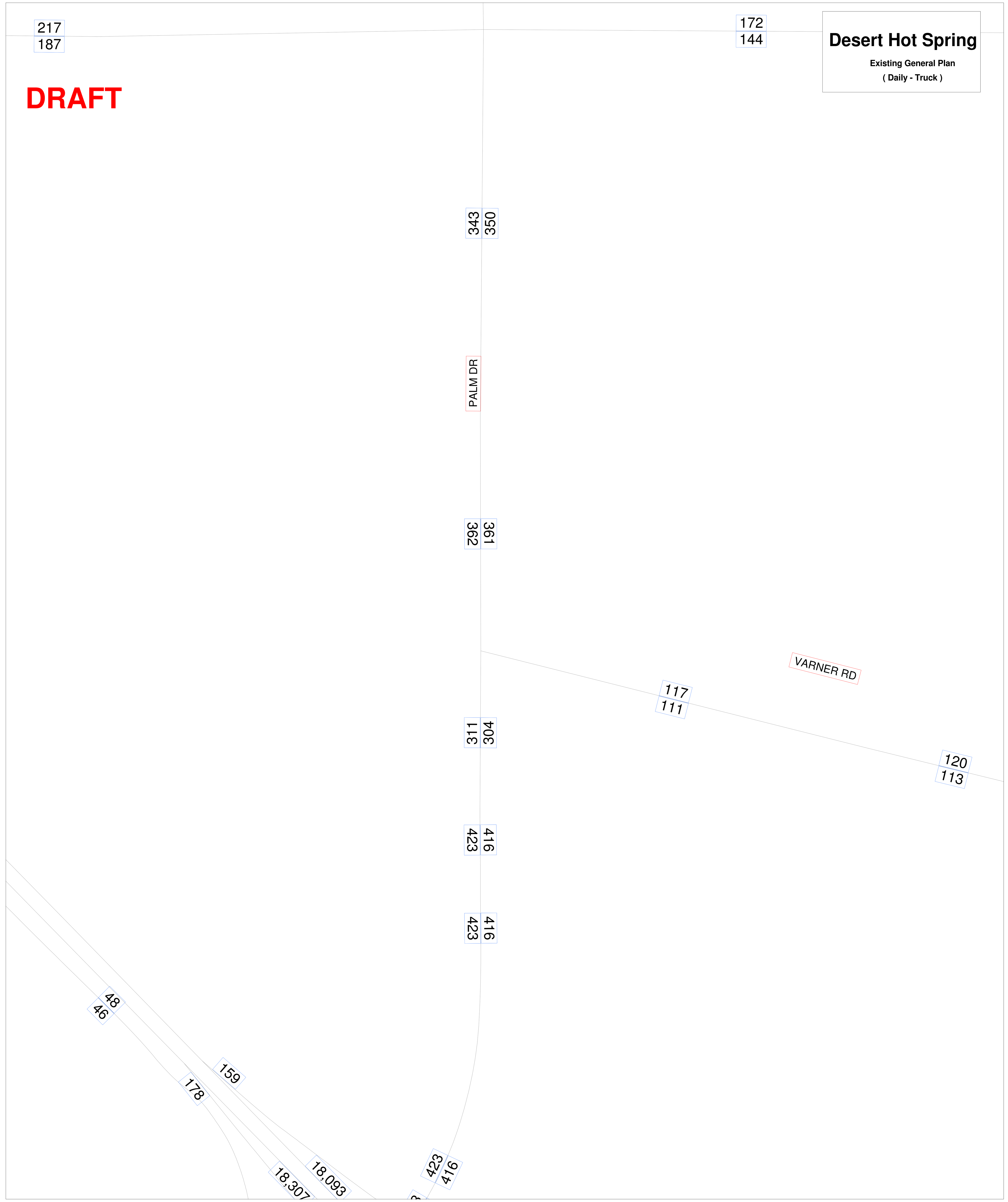

DRAFT
62
DILLON RD
Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)

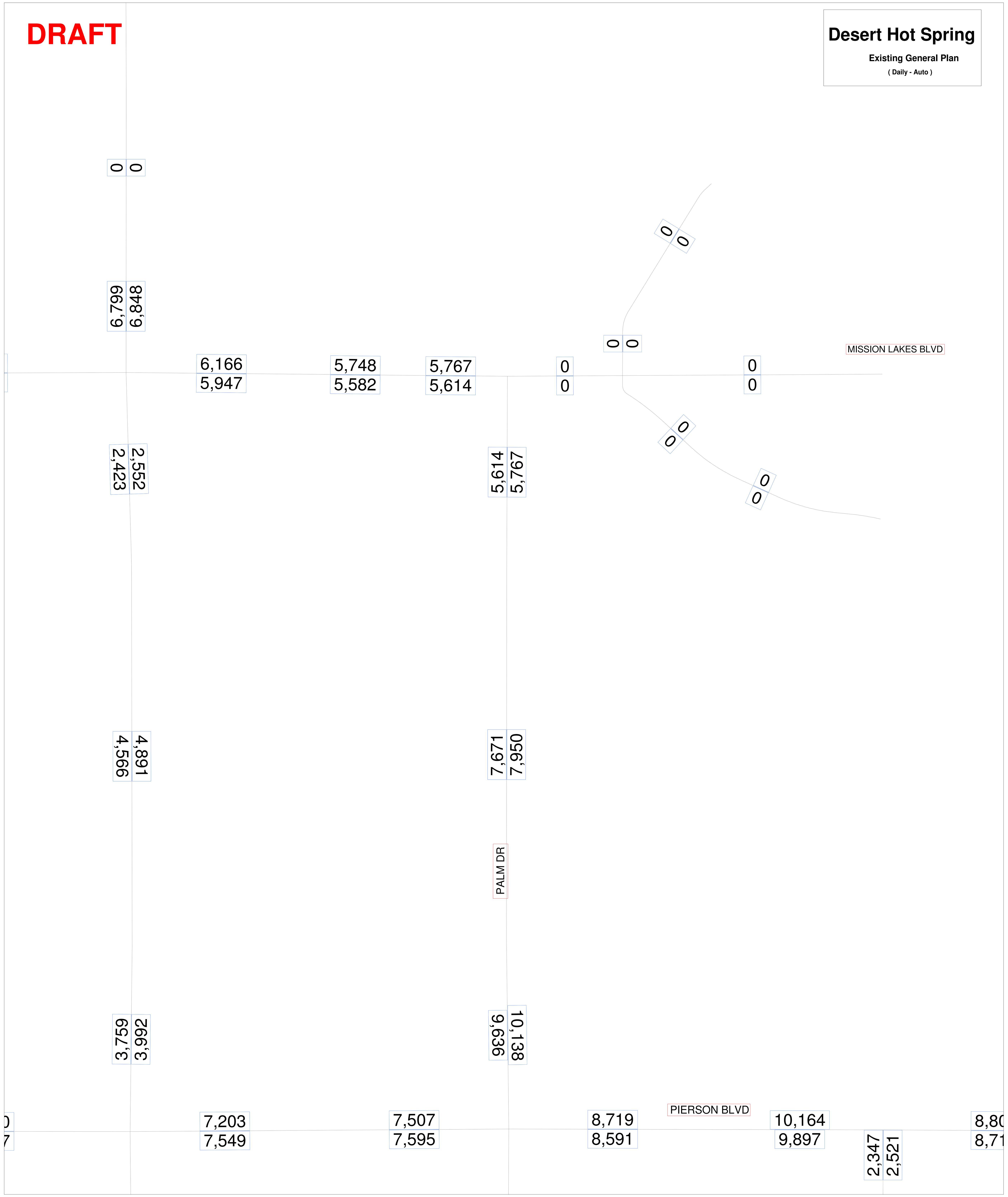

DRAFT
62
DILLON RD
Desert Hot Spring
Existing General Plan
Trucks - AM Peak Period)

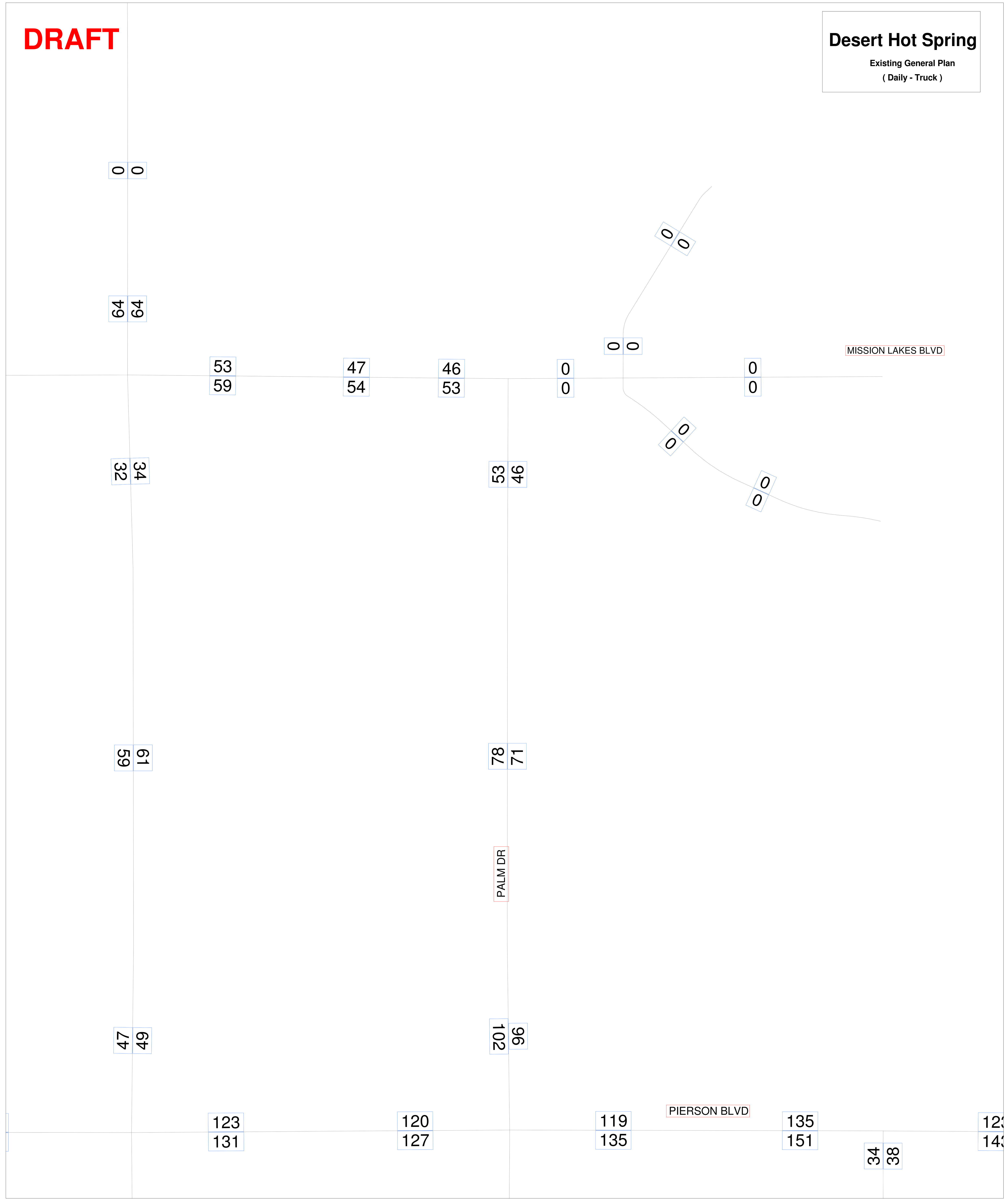
DRAFT

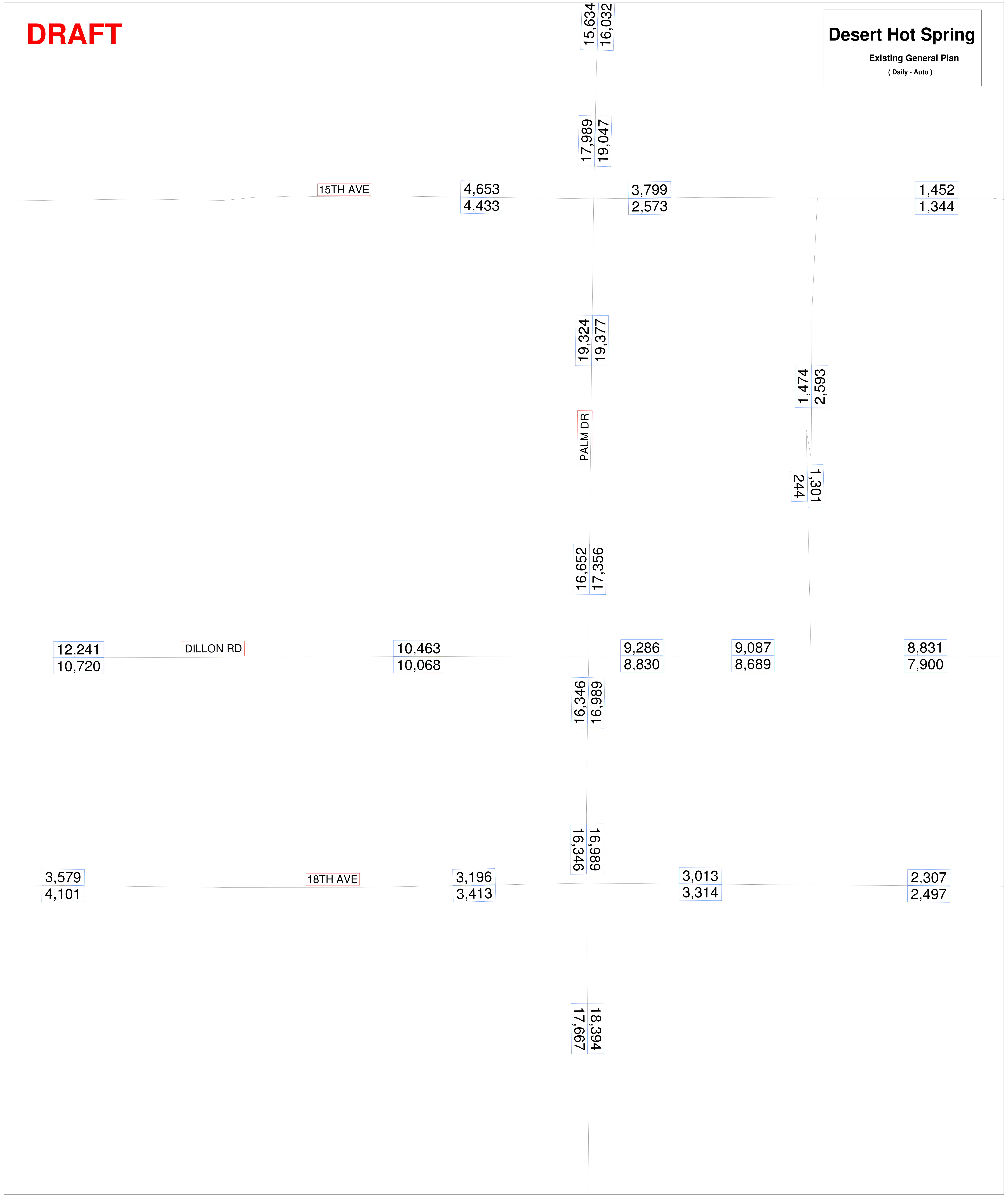

Existing GP
PM - Auto
MISSION LAKES BLVD
LITTLE MORONGO RD
WEST DR
PALM DR
0
0
747
927
657
807
0
0
1,942
2,055
2,981
2,162
1,432
1,757
765
617
2,162
1,881
2,040
1,761
2,046
1,773
0
0
0
0
0
0
0
0
0
0
0
0
742
721
1,773
2,046
2,266
3,560
1,203
1,884
2,324
3,063
1,030
1,613
2,861
3,929
1
2,282
2,817
2,737
3,003


Desert Hot Spring
Existing General Plan
(Daily - Auto)
DRAFT
5,392
7,190
6,695
8,063
24,149
24,503
PALM DR
25,645
25,667
VARNER RD
5,410
5,089
21,478
21,178
5,305
4,891
23,504
22,174
23,504
22,174
1,980
2,214
2,964
2,080
74,868

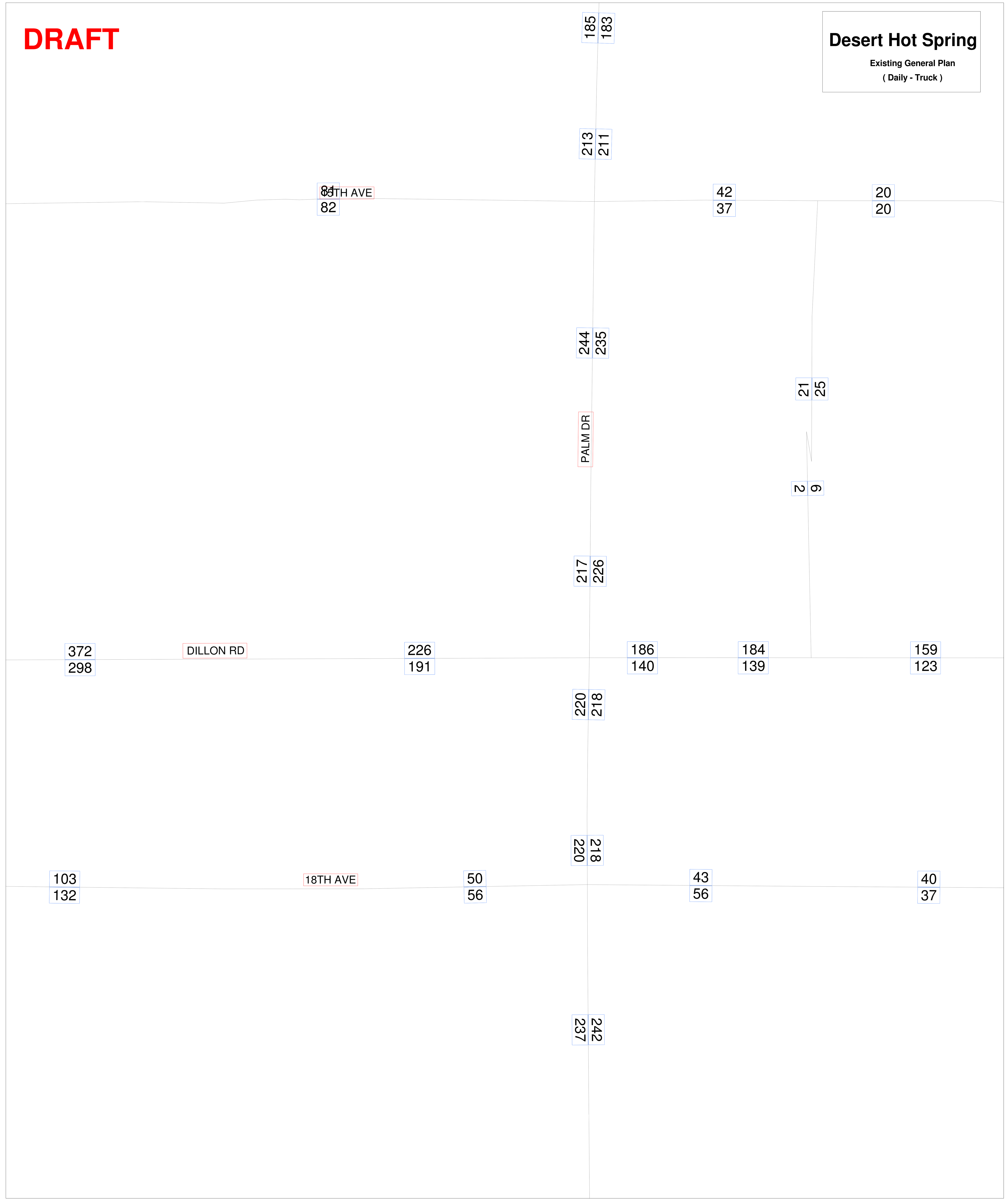

Desert Hot Spring
Existing General Plan
(Daily - Truck)
DRAFT
217
187
172
144
343
350
PALM DR
362
361
VARNER RD
117
111
311
304
120
113
423
416
423
416
48
46
159
178
18,307
18,093
423
416


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
MISSION LAKES BLVD
PALM DR
PIERSON BLVD
0
0
6,799
6,848
6,166
5,947
5,748
5,582
5,767
5,614
2,423
2,552
5,614
5,767
4,566
4,891
7,671
7,950
3,759
3,692
9,636
10,138
7,203
7,549
7,507
7,595
8,719
8,591
10,164
9,897
2,347
2,521

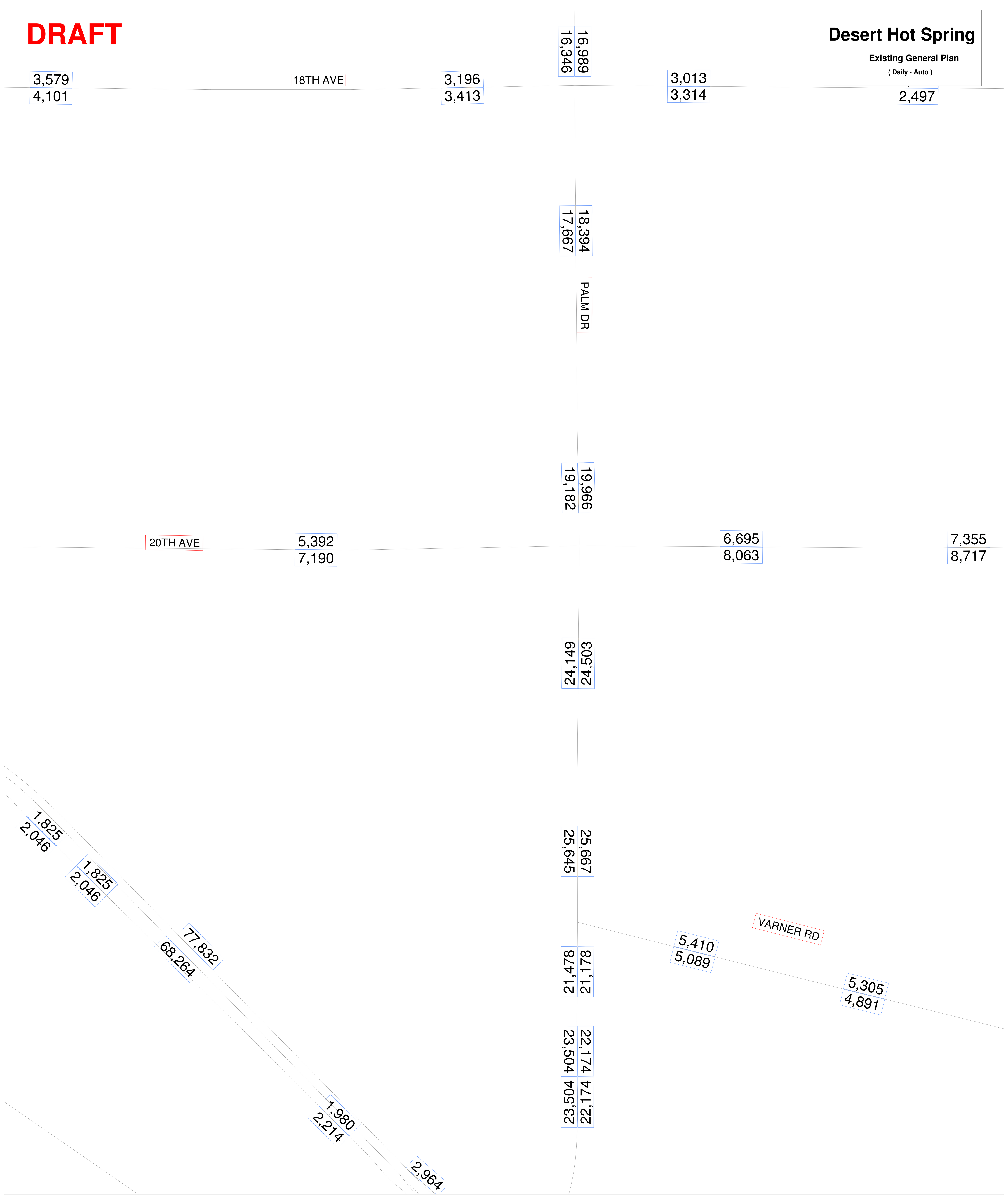
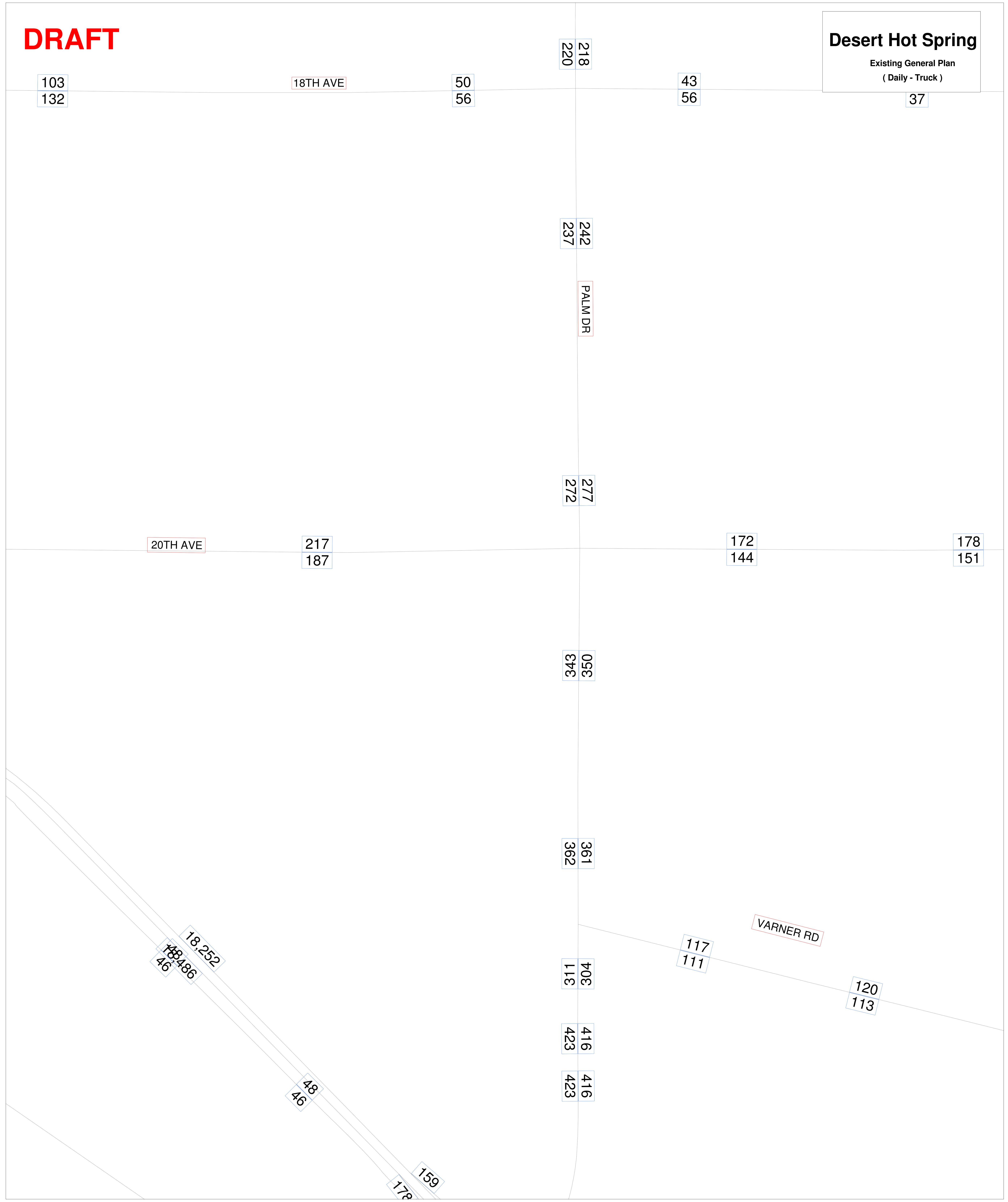

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
MISSION LAKES BLVD
PALM DR
PIERSON BLVD
0
0
64
64
53
59
47
54
46
53
32
34
53
46
59
61
78
71
47
49
102
96
123
131
120
127
119
135
135
151
34
38

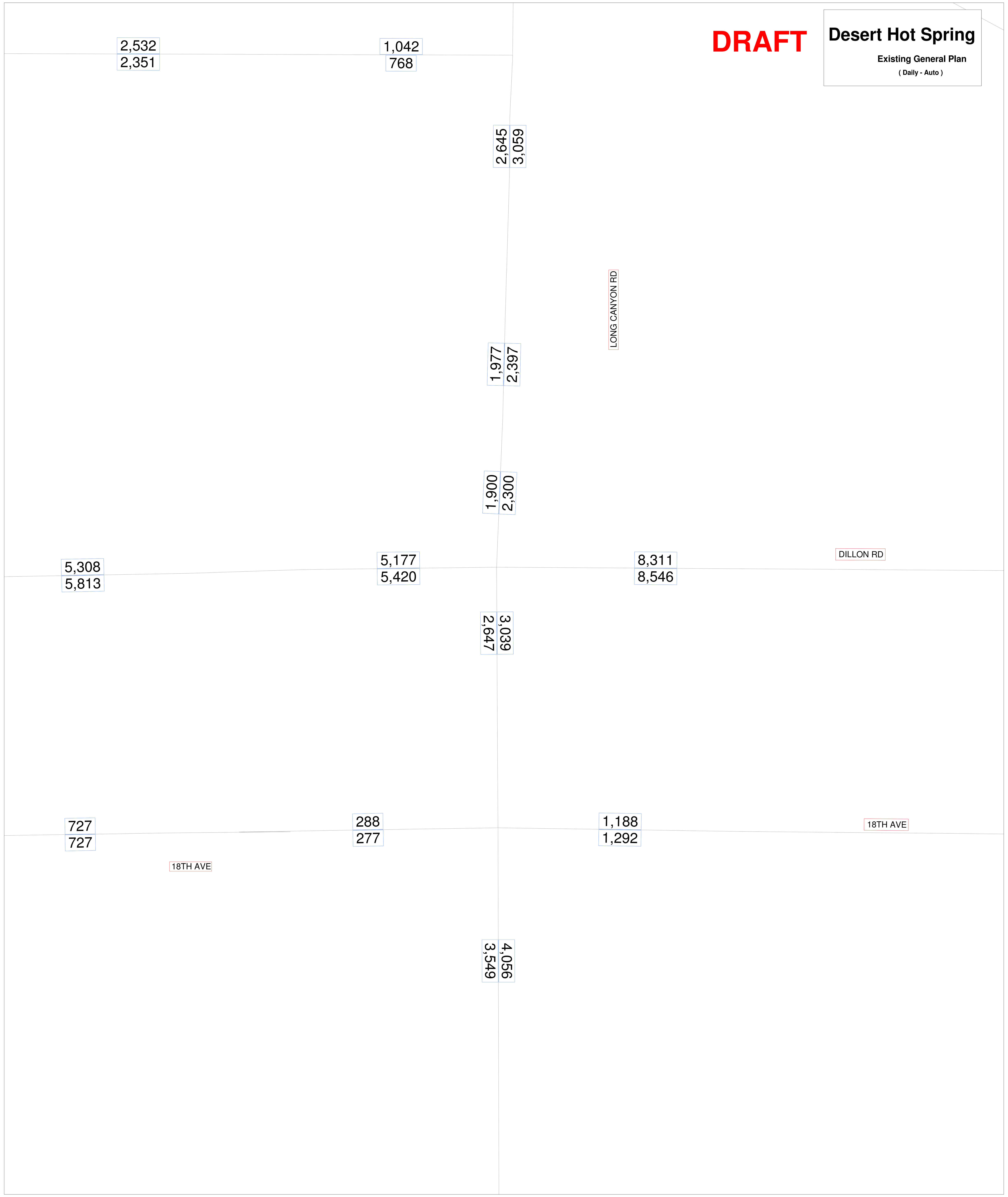


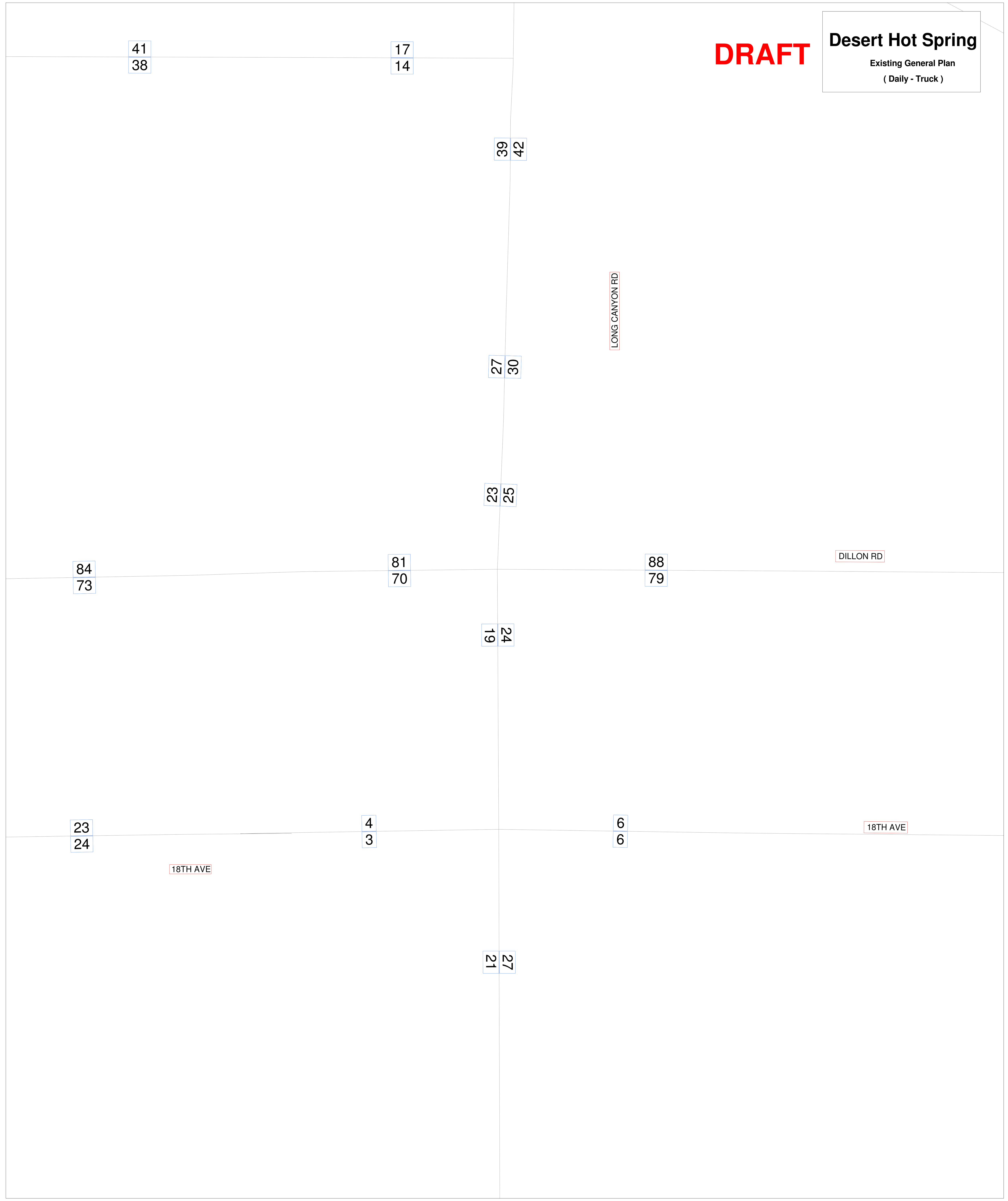
DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
15TH AVE
DILLON RD
18TH AVE
PALM DR
15,634
16,032
17,989
19,047
4,653
4,433
3,799
2,573
1,452
1,344
19,324
19,377
1,474
2,593
1,301
244
16,652
17,356
12,241
10,720
10,463
10,068
9,286
8,830
9,087
8,689
8,831
7,900
16,346
16,989
16,989
16,346
3,579
4,101
3,196
3,413
3,013
3,314
2,307
2,497
18,394
17,667

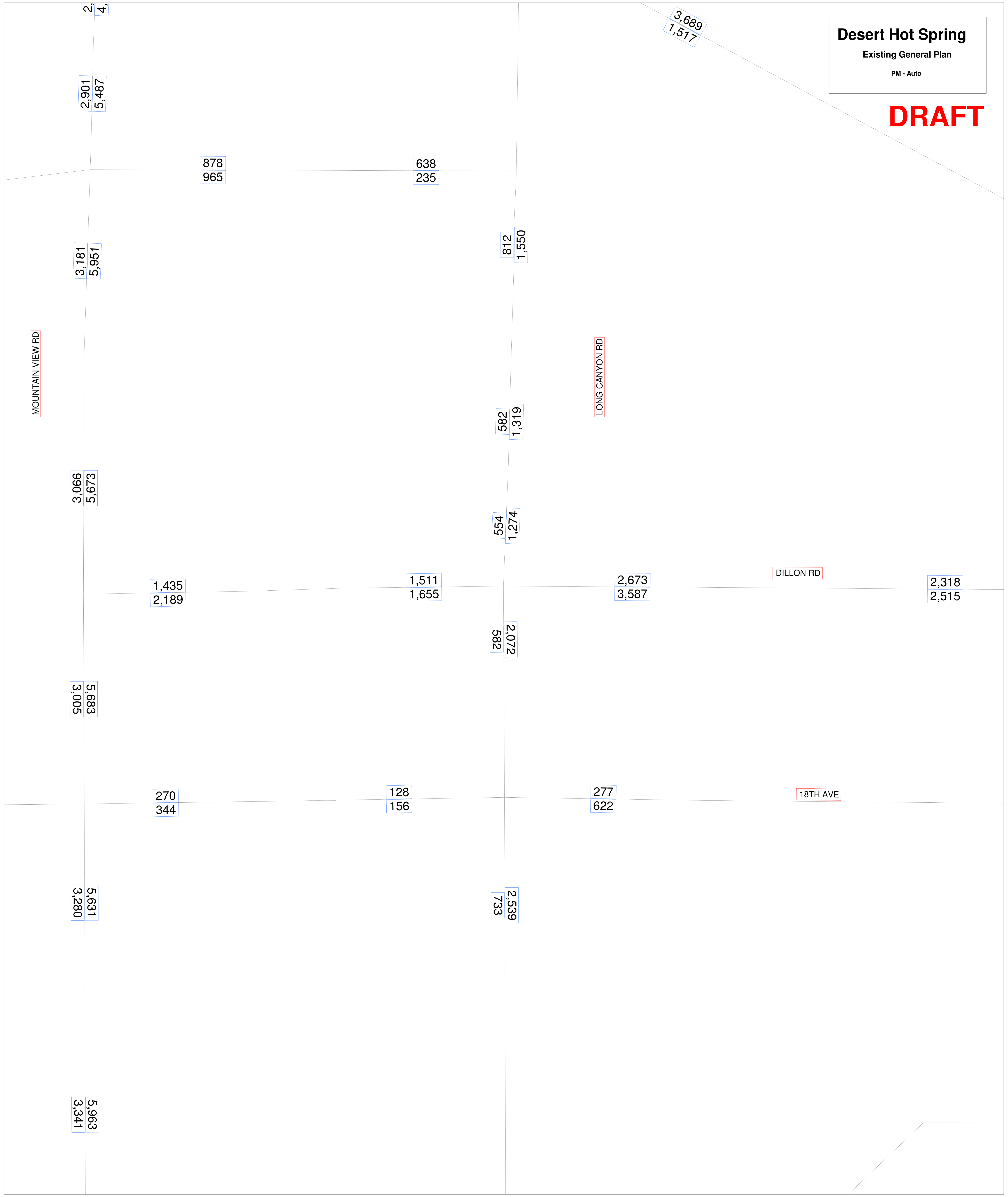


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
15TH AVE
DILLON RD
18TH AVE
PALM DR
185
183
213
211
81
82
42
37
20
20
244
235
21
25
6
2
217
226
372
298
226
191
186
140
184
139
159
123
220
218
218
220
103
132
50
56
43
56
40
37
242
237

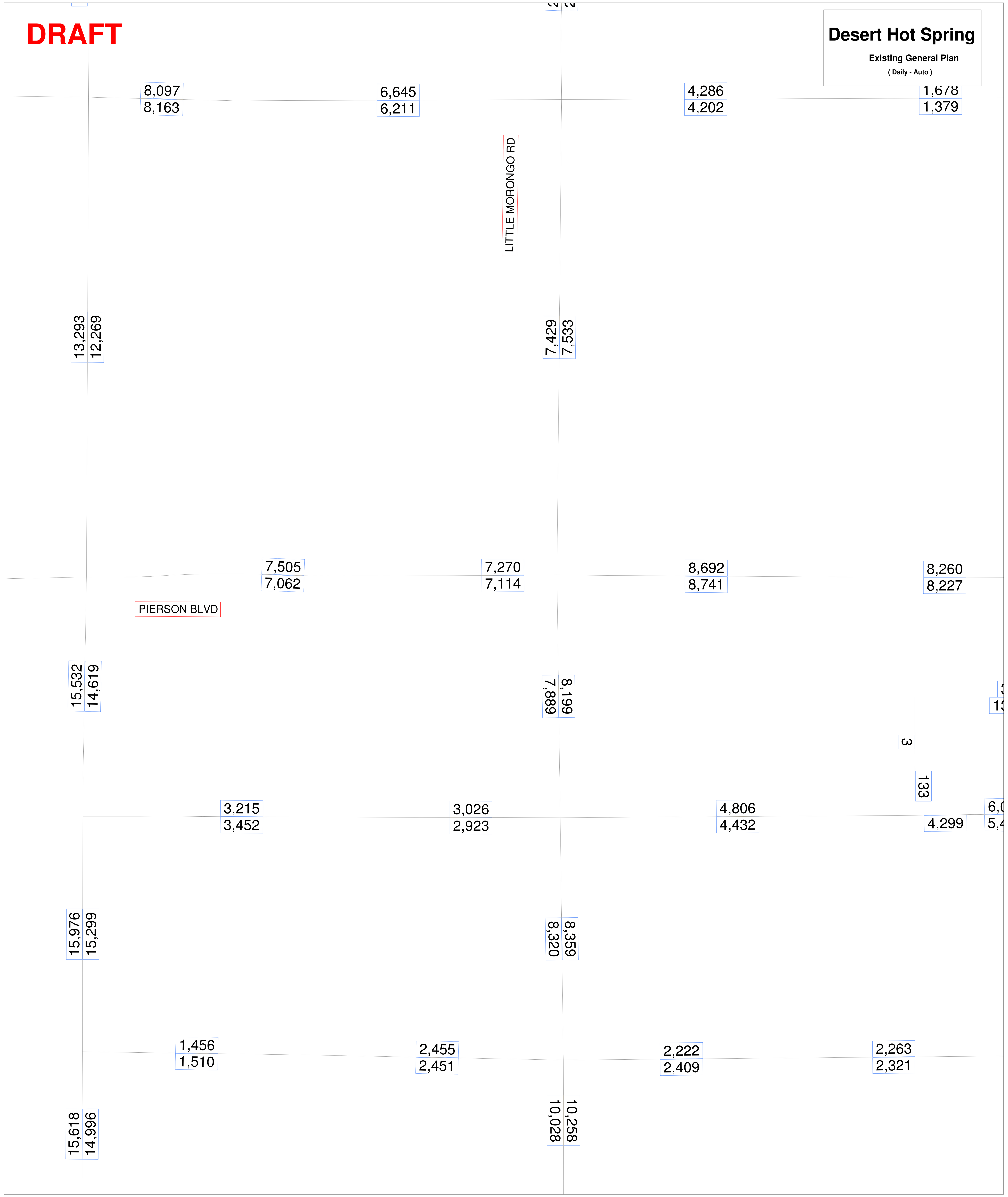

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
18TH AVE
20TH AVE
PALM DR
VARNER RD
3,579
4,101
3,196
3,413
16,989
16,346
3,013
3,314
2,497
18,394
17,667
19,966
19,182
5,392
7,190
6,695
8,063
7,355
8,717
24,503
24,149
25,667
25,645
1,825
2,046
1,825
2,046
77,832
68,264
21,178
21,478
5,410
5,089
5,305
4,891
22,174
23,504
22,174
23,504
1,980
2,214
2,964

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
18TH AVE
20TH AVE
PALM DR
VARNER RD
103
132
50
56
218
220
43
56
37
242
237
277
272
217
187
172
144
178
151
350
349
361
362
18,252
304
311
117
111
120
113
416
423
416
423
48
46
159


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
2,532
2,351
1,042
768
2,645
3,059
LONG CANYON RD
1,977
2,397
1,900
2,300
DILLON RD
5,308
5,813
5,177
5,420
8,311
8,546
2,647
3,039
727
727
288
277
1,188
1,292
18TH AVE
18TH AVE
3,549
4,056

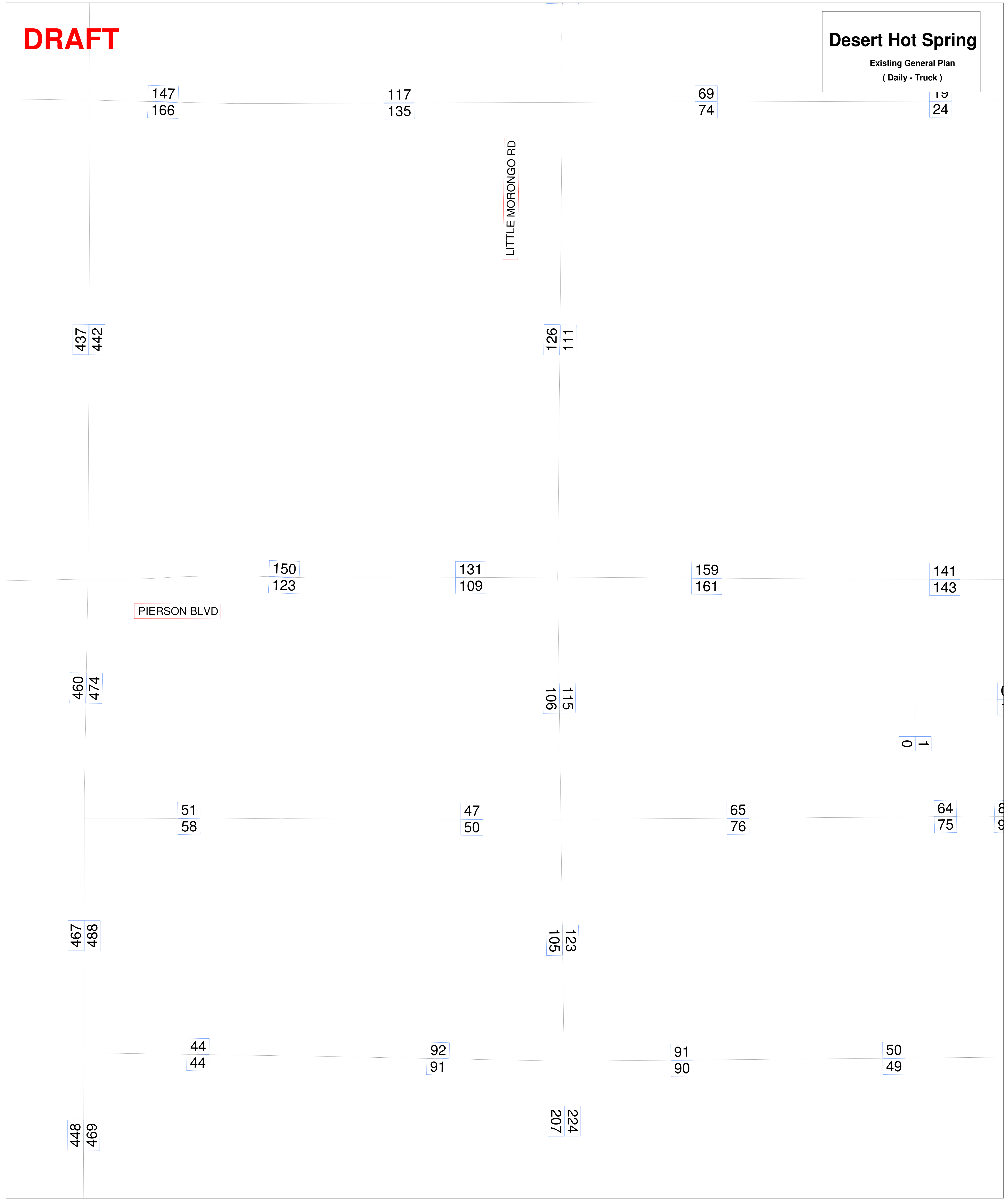

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
41
38
17
14
39
42
LONG CANYON RD
27
30
23
25
DILLON RD
84
73
81
70
88
79
19
24
23
24
4
3
6
6
18TH AVE
18TH AVE
21
27


Desert Hot Spring
Existing General Plan
PM - Auto
DRAFT
MOUNTAIN VIEW RD
LONG CANYON RD
DILLON RD
18TH AVE
3,689
1,517
2,901
5,487
878
965
638
235
3,181
5,951
812
1,550
582
1,319
3,066
5,673
554
1,274
1,435
2,189
1,511
1,655
2,673
3,587
2,318
2,515
582
2,072
3,005
5,683
270
344
128
156
277
622
3,280
5,631
733
2,539
3,341
5,963

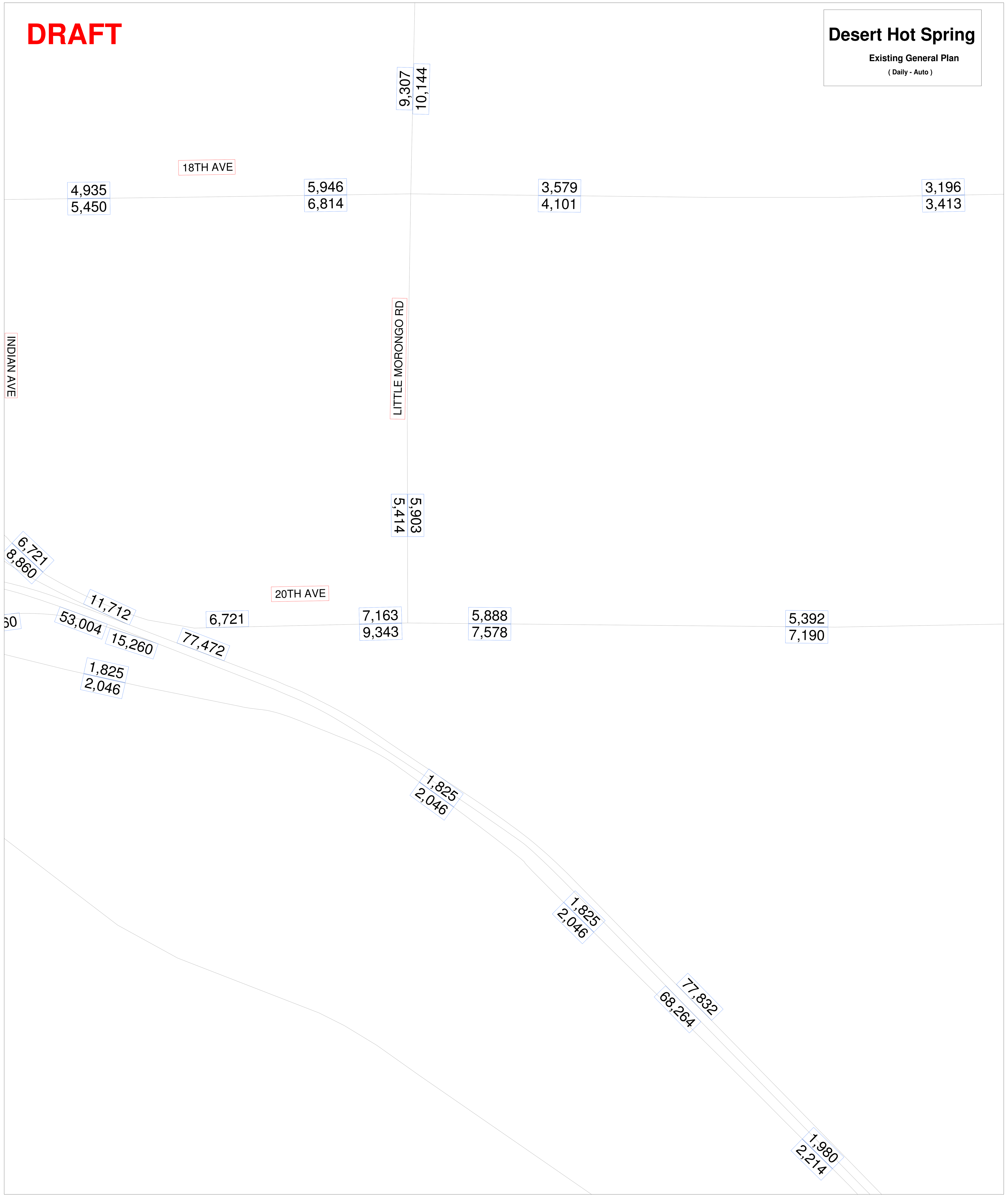
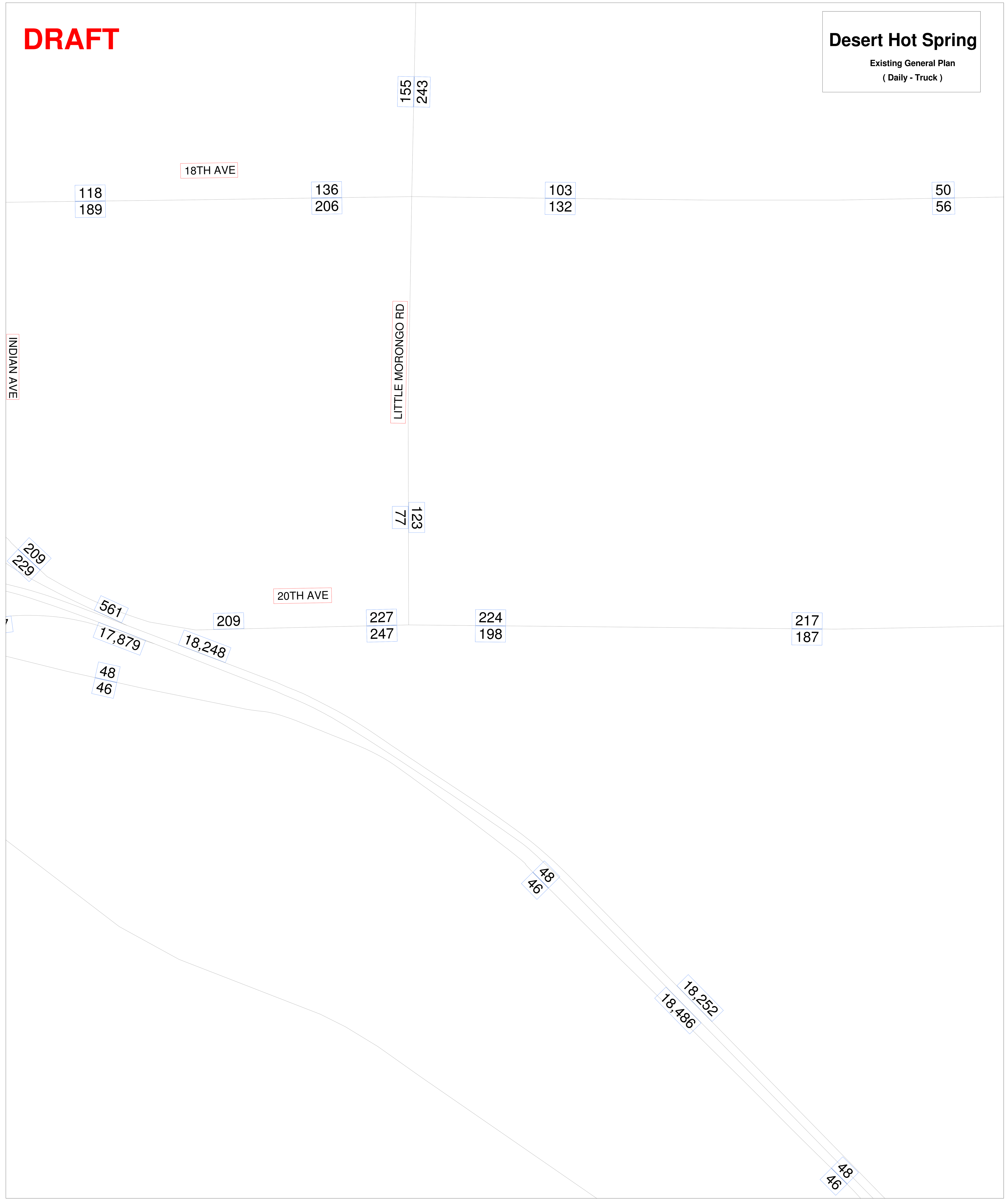

Desert Hot Spring
Existing General Plan
PM - Truck
DRAFT
MOUNTAIN VIEW RD
LONG CANYON RD
DILLON RD
18TH AVE
43
45
21
20
12
8
7
3
26
22
9
13
6
10
25
18
5
9
26
19
26
16
31
22
24
14
5
9
21
16
6
5
1
1
2
1
24
17
5
10
25
18



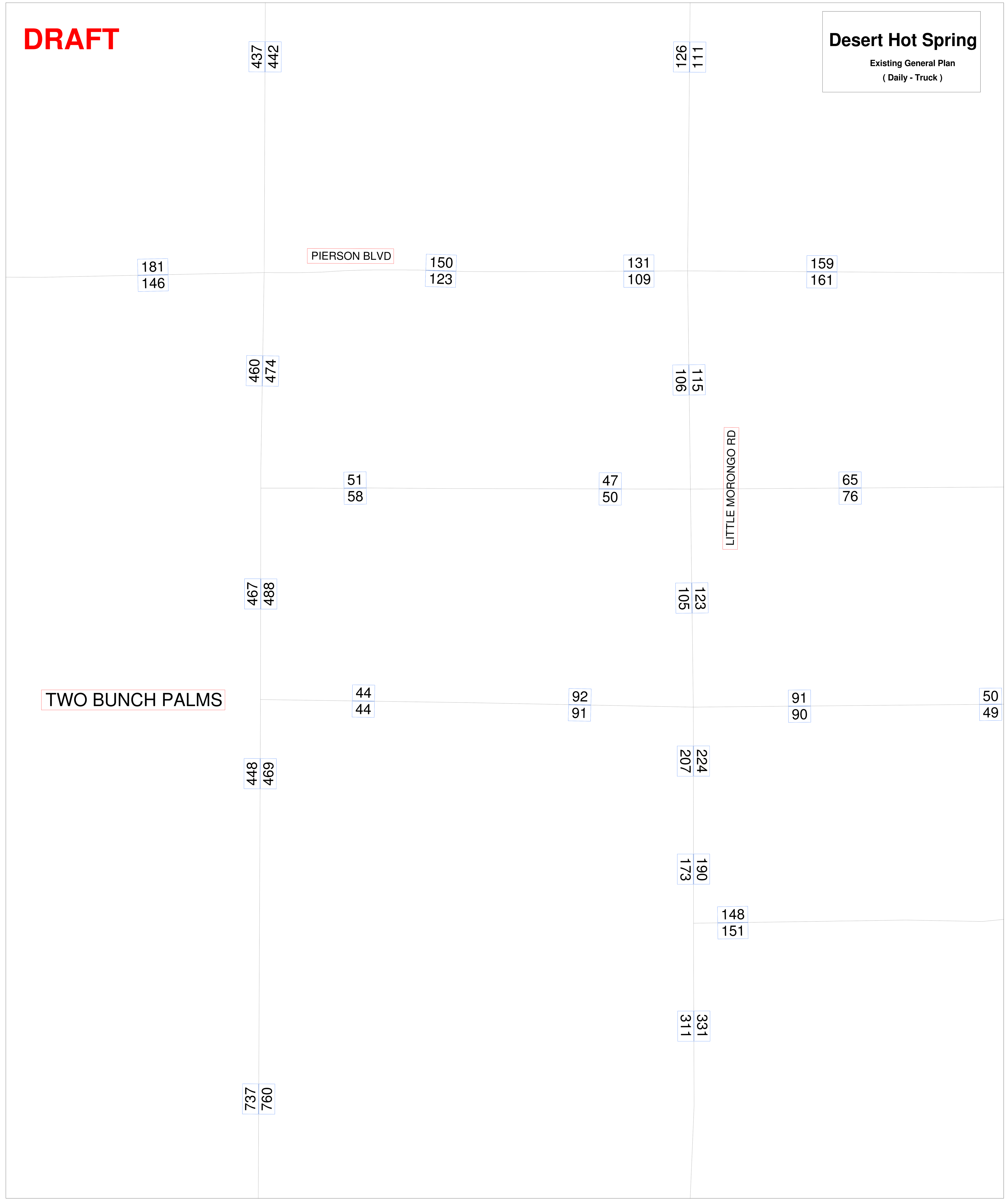
DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
LITTLE MORONGO RD
PIERSON BLVD
8,097
8,163
6,645
6,211
4,286
4,202
1,678
1,379
13,293
12,269
7,429
7,533
7,505
7,062
7,270
7,114
8,692
8,741
8,260
8,227
15,532
14,619
7,889
8,199
3
133
3,215
3,452
3,026
2,923
4,806
4,432
4,299
15,976
15,299
8,320
8,359
1,456
1,510
2,455
2,451
2,222
2,409
2,263
2,321
15,618
14,996
10,028
10,258



DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
LITTLE MORONGO RD
PIERSON BLVD
147
166
117
135
69
74
24
437
442
126
111
150
123
131
109
159
161
141
143
460
474
106
115
0
1
51
58
47
50
65
76
64
75
467
488
105
123
44
44
92
91
91
90
50
49
448
469
207
224


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
18TH AVE
20TH AVE
INDIAN AVE
LITTLE MORONGO RD
9,307
10,144
4,935
5,450
5,946
6,814
3,579
4,101
3,196
3,413
5,903
5,414
6,721
8,860
11,712
53,004
15,260
77,472
6,721
7,163
9,343
5,888
7,578
5,392
7,190
1,825
2,046
1,825
2,046
1,825
2,046
77,832
68,264
1,980
2,214

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
18TH AVE
20TH AVE
INDIAN AVE
LITTLE MORONGO RD
155
243
118
189
136
206
103
132
50
56
123
77
209
229
561
17,879
18,248
209
227
247
224
198
217
187
48
46
48
46
18,252
18,486
48
46


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
PIERSON BLVD
LITTLE MORONGO RD
TWO BUNCH PALMS
13,293
12,269
7,429
7,533
8,939
8,385
7,505
7,062
7,270
7,114
8,692
8,741
15,532
14,619
7,889
8,199
3,215
3,452
3,026
2,923
4,806
4,432
15,976
15,299
8,320
8,359
1,456
1,510
2,455
2,451
2,222
2,409
15,618
14,996
10,028
10,258
8,610
8,803
2,089
2,466
9,972
10,542
20,634
20,655


DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
PIERSON BLVD
LITTLE MORONGO RD
TWO BUNCH PALMS
437
442
126
111
181
146
150
123
131
109
159
161
460
474
106
115
51
58
47
50
65
76
467
488
105
123
44
44
92
91
91
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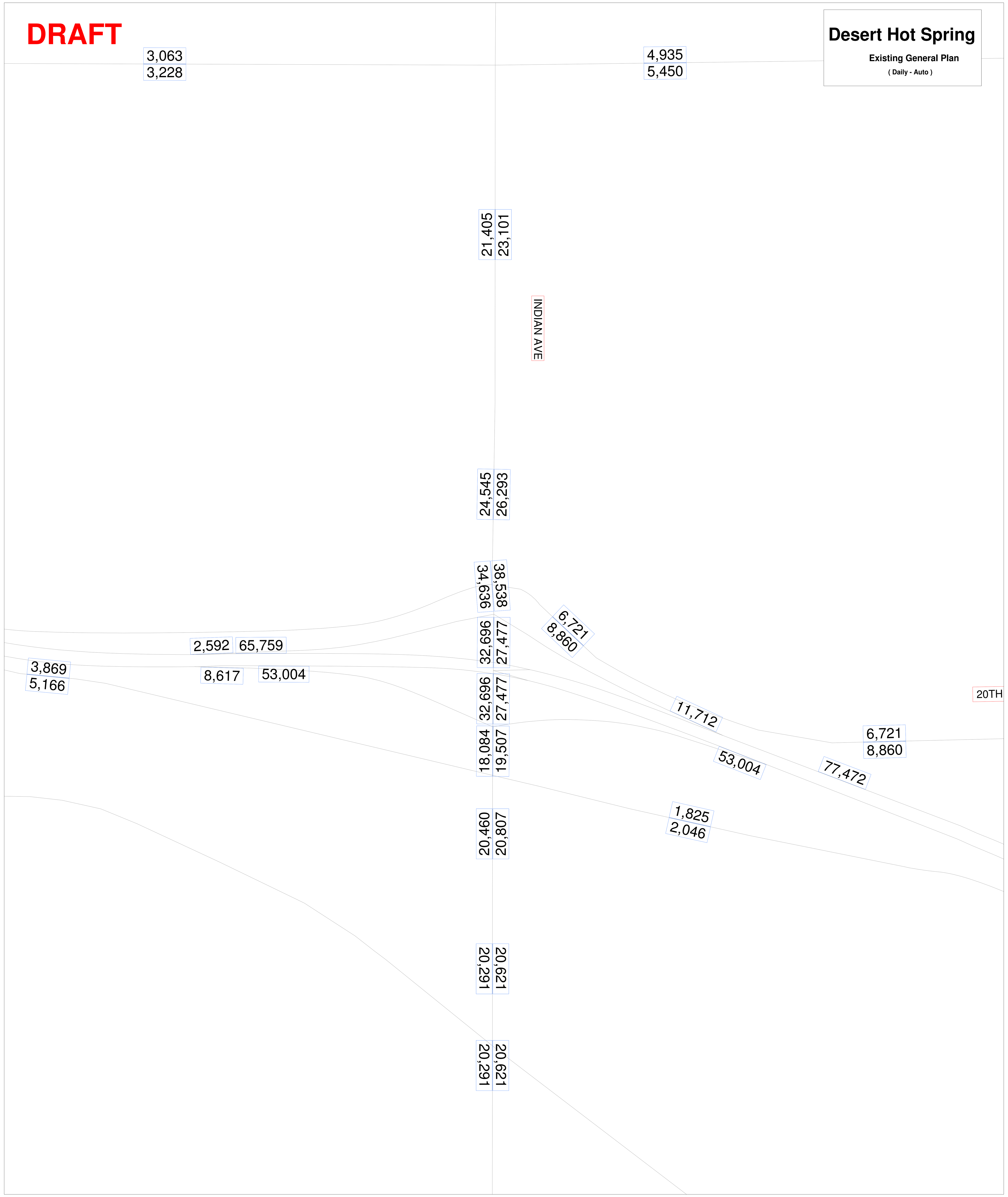
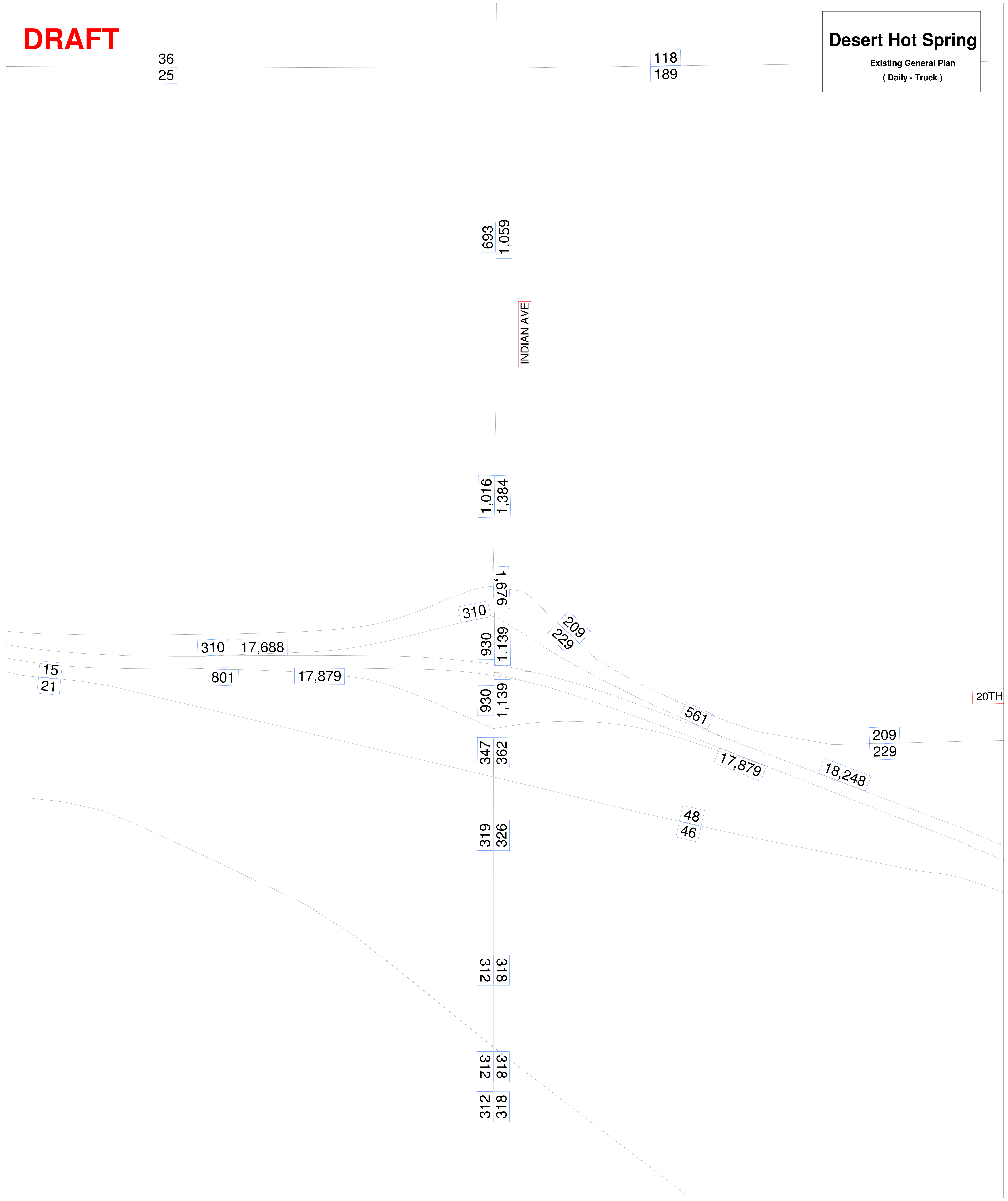
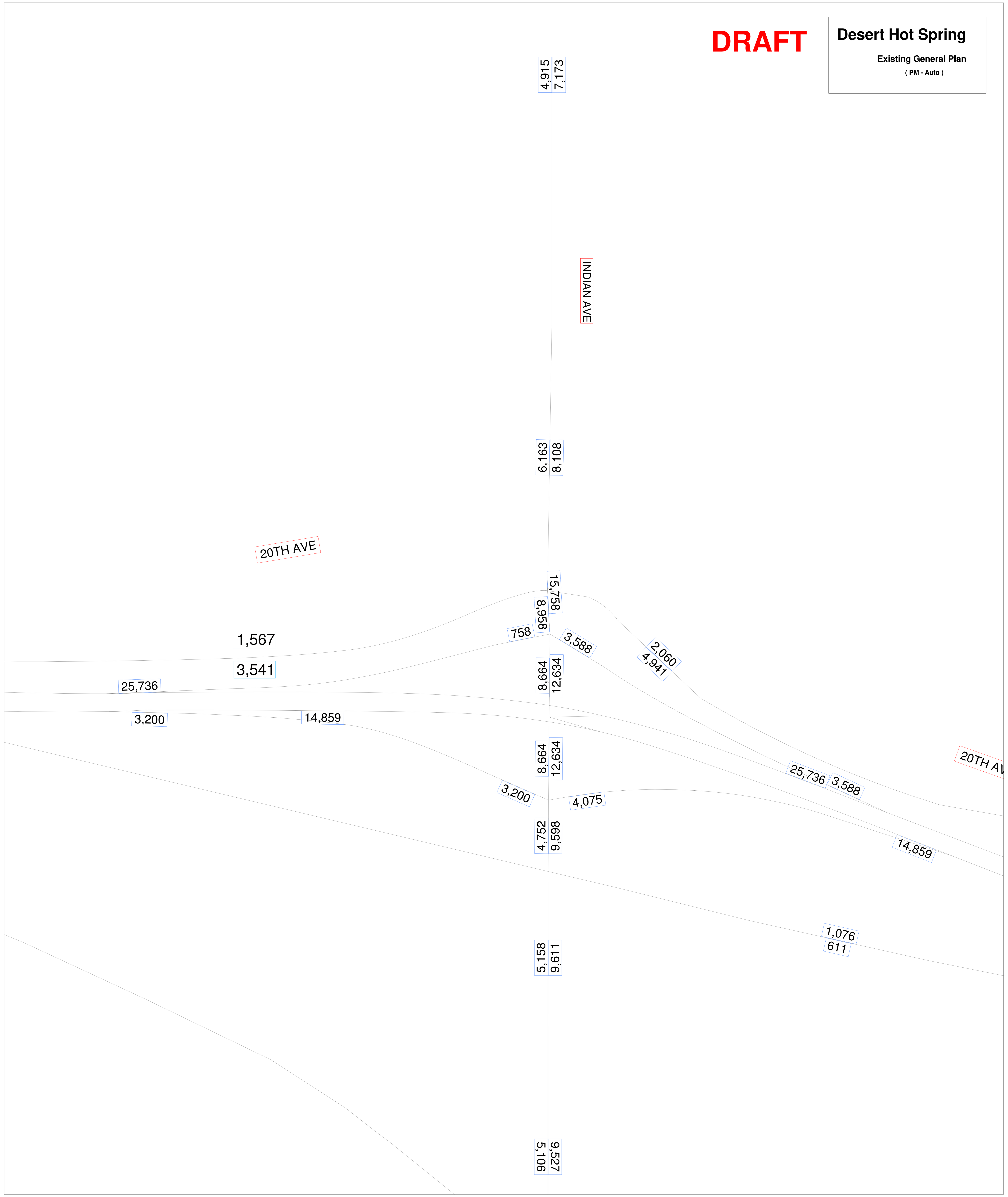
151
311
331
737
760

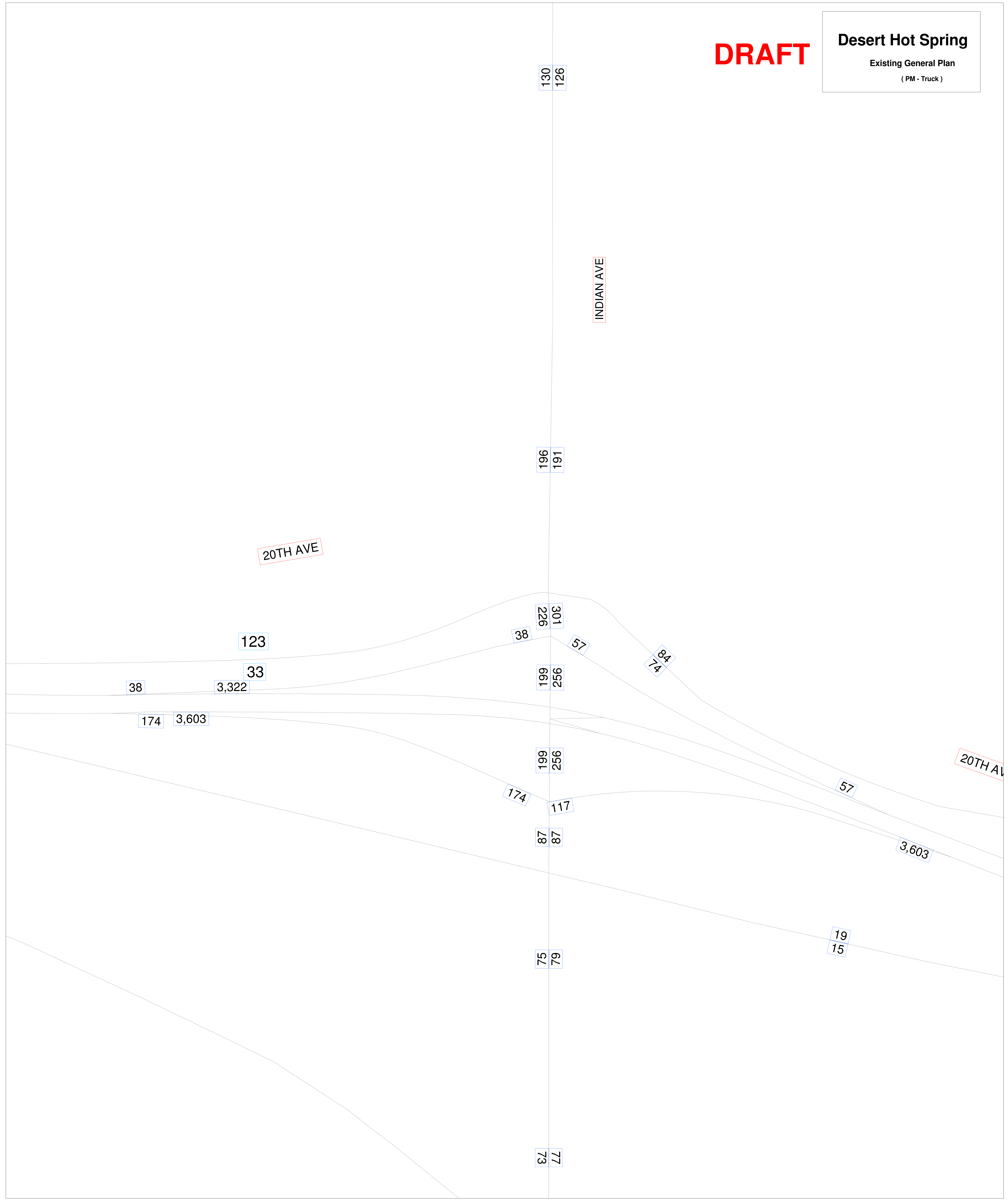


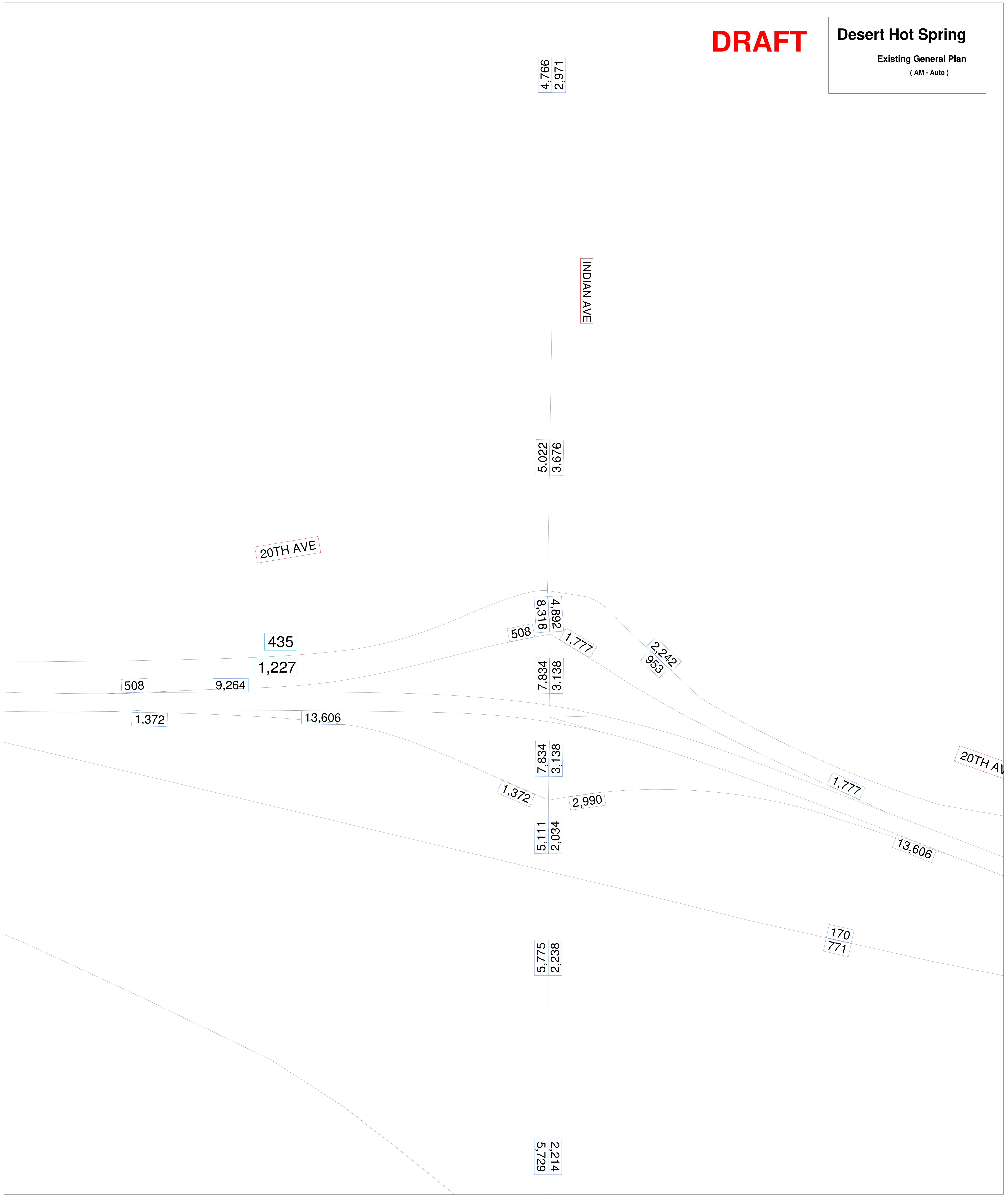
DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
3,063
3,228
4,935
5,450
21,405
23,101
INDIAN AVE
24,545
26,293
34,636
38,538
6,721
8,860
2,592
65,759
32,696
27,477
3,869
5,166
8,617
53,004
20TH
11,712
18,084
19,507
6,721
8,860
53,004
77,472
1,825
2,046
20,460
20,807
20,291
20,621
20,291
20,621



DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
36
25
118
189
693
1,059
INDIAN AVE
1,016
1,384
1,676
310
209
229
310
17,688
930
1,139
15
21
801
17,879
20TH
561
209
229
347
362
17,879
18,248
48
46
319
326
312
318
312
318
312
318

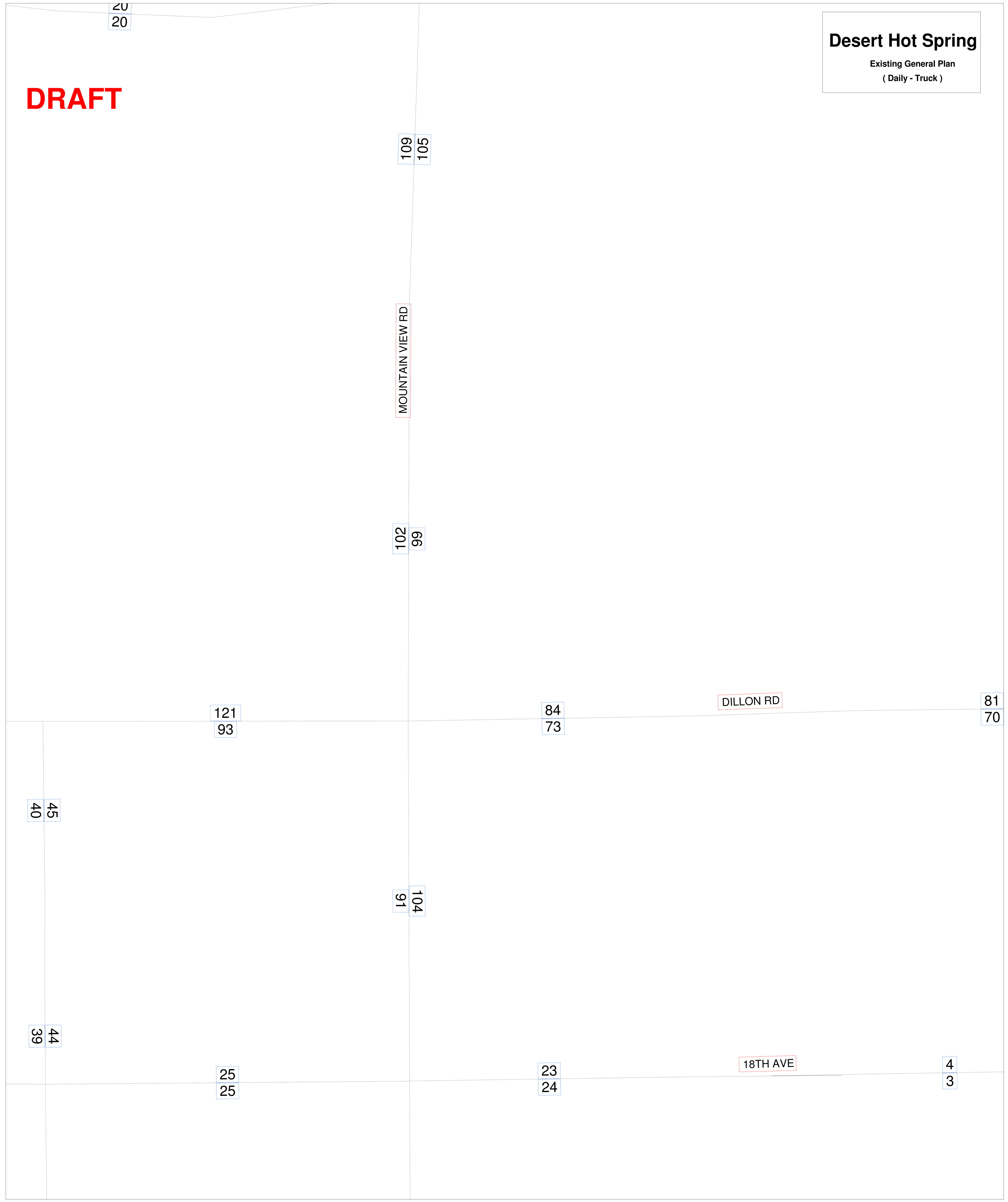

DRAFT
Desert Hot Spring
Existing General Plan
(PM - Auto)
INDIAN AVE
20TH AVE
20TH AVE
4,915
7,173
6,163
8,108
15,758
8,958
758
3,588
2,060
4,941
1,567
3,541
25,736
8,664
12,634
3,200
14,859
8,664
12,634
25,736
3,588
3,200
4,075
4,752
9,598
14,859
1,076
611
5,158
9,611
5,106
9,527

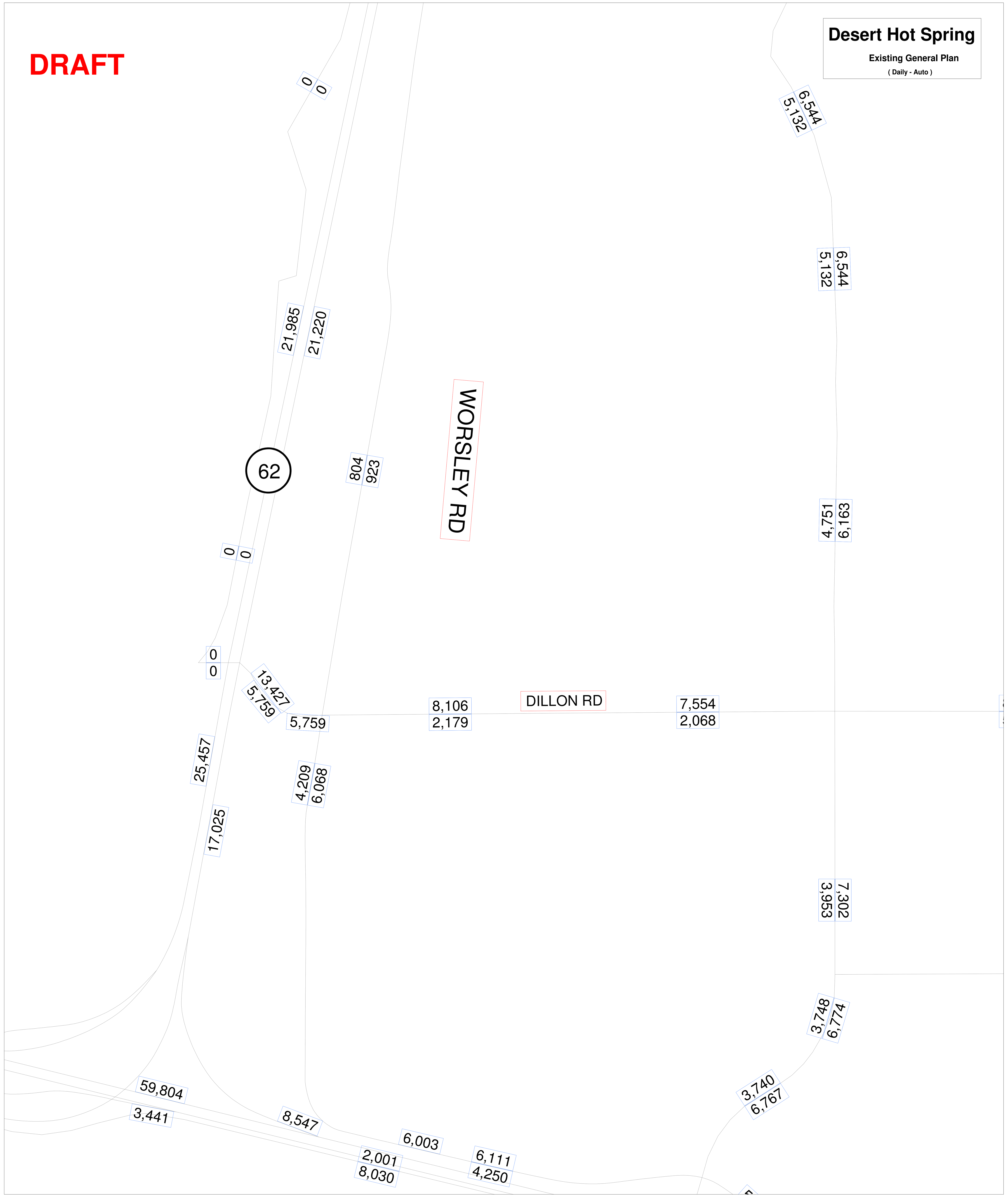

DRAFT
Desert Hot Spring
Existing General Plan
(PM - Truck)
INDIAN AVE
20TH AVE
20TH AVE
130
126
196
191
226
301
38
57
84
74
123
33
38
3,322
199
256
174
3,603
199
256
57
174
117
87
87
3,603
19
15
75
79
73
77

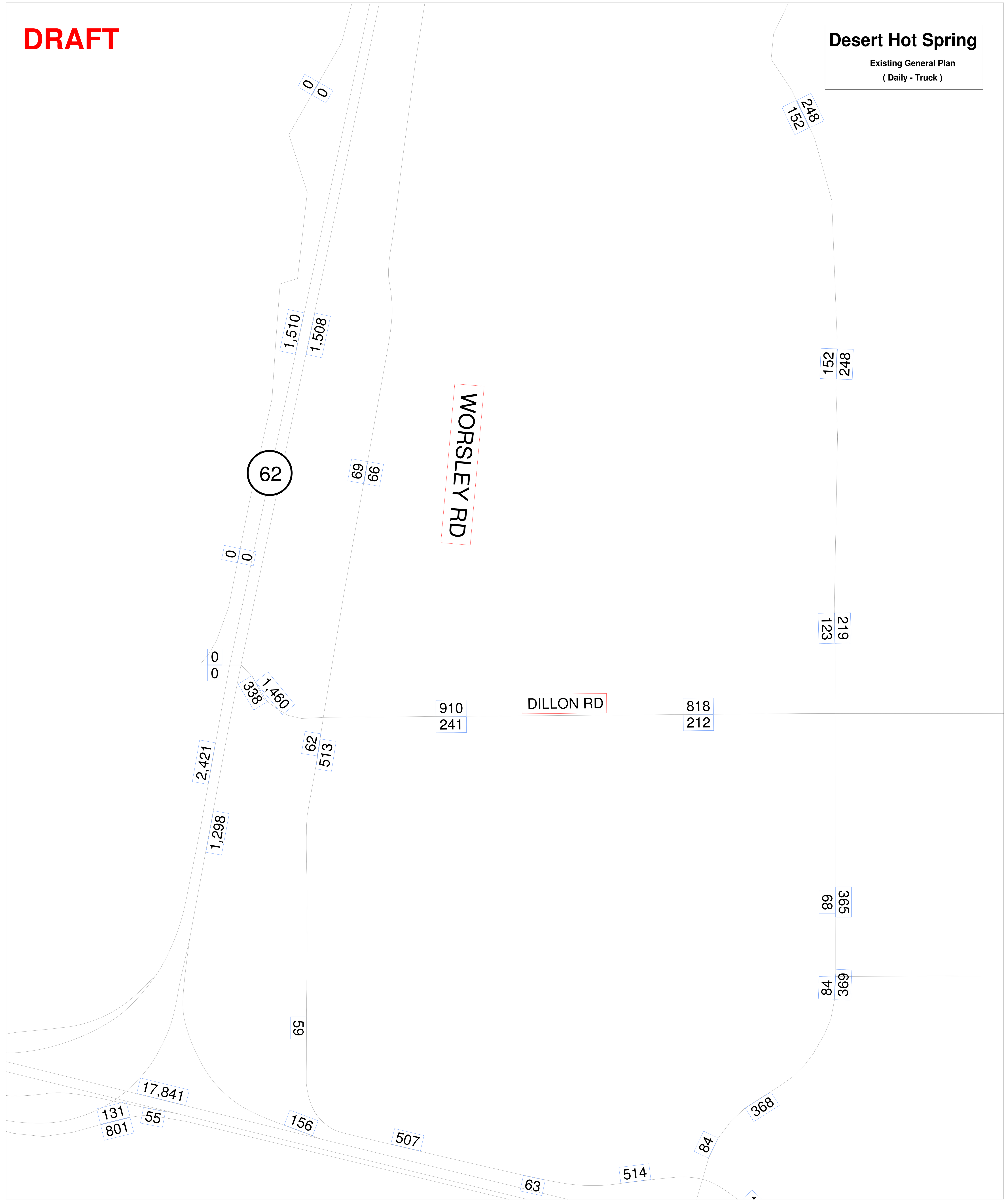

DRAFT
Desert Hot Spring
Existing General Plan
(AM - Auto)
INDIAN AVE
20TH AVE
20TH AVE
4,766
2,971
5,022
3,676
8,318
4,892
508
1,777
2,242
953
435
1,227
508
9,264
7,834
3,138
1,372
13,606
7,834
3,138
1,777
1,372
2,990
5,111
2,034
13,606
170
771
5,775
2,238
5,729
2,214


DRAFT
Desert Hot Spring
Existing General Plan
(AM - Truck)
INDIAN AVE
20TH AVE
20TH AVE
53
153
92
193
128
235
41
99
25
31
14
13
41
2,194
88
136
89
2,096
88
136
99
89
49
44
52
2,096
6
9
49
46
48
45

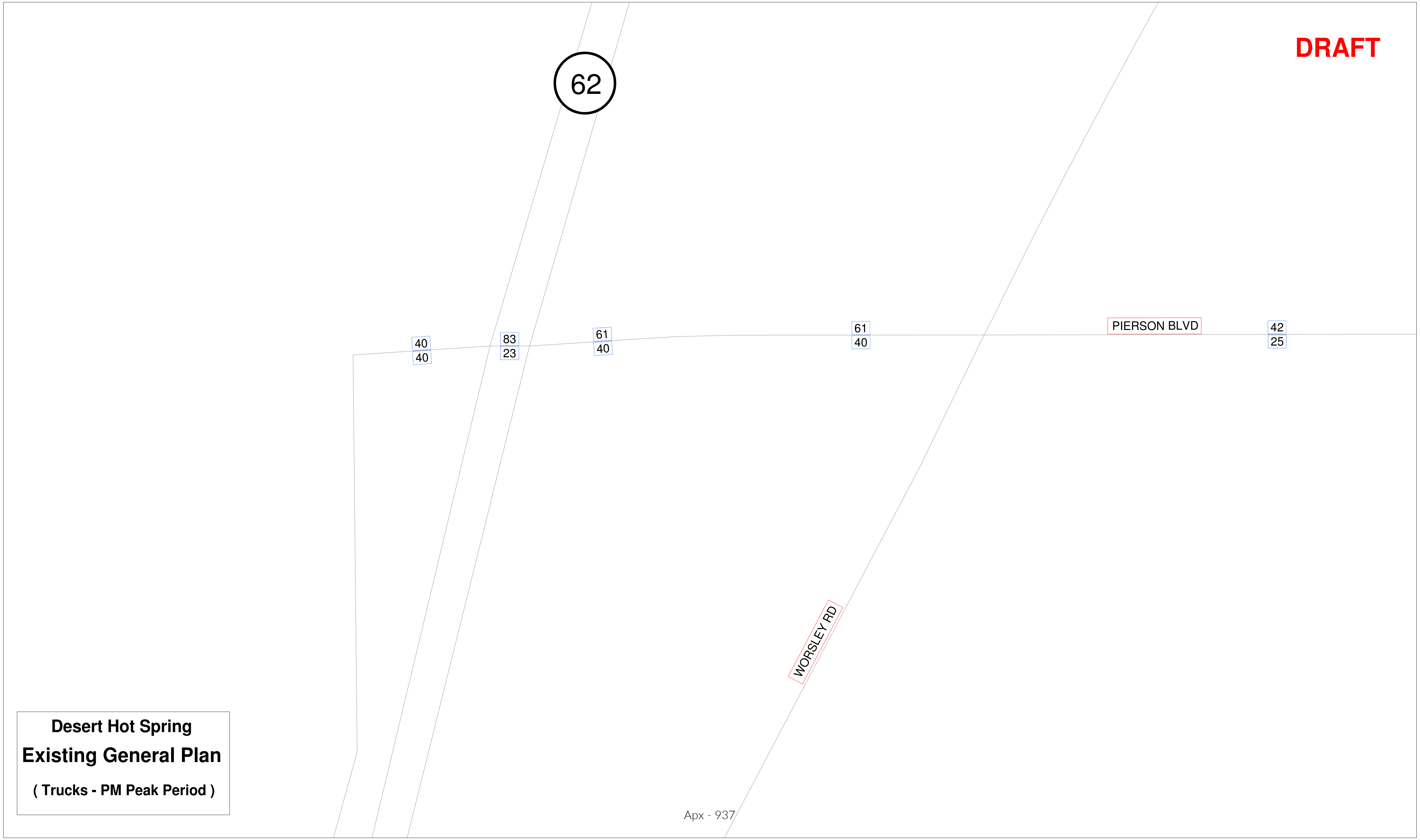

Desert Hot Spring
Existing General Plan
(Daily - Auto)
DRAFT
1,452
1,344
11,355
12,028
MOUNTAIN VIEW RD
11,253
11,899
DILLON RD
7,072
7,149
5,308
5,813
5,17
5,42
4,466
3,293
12,829
11,756
4,520
3,301
18TH AVE
1,582
1,845
727
727
288
277

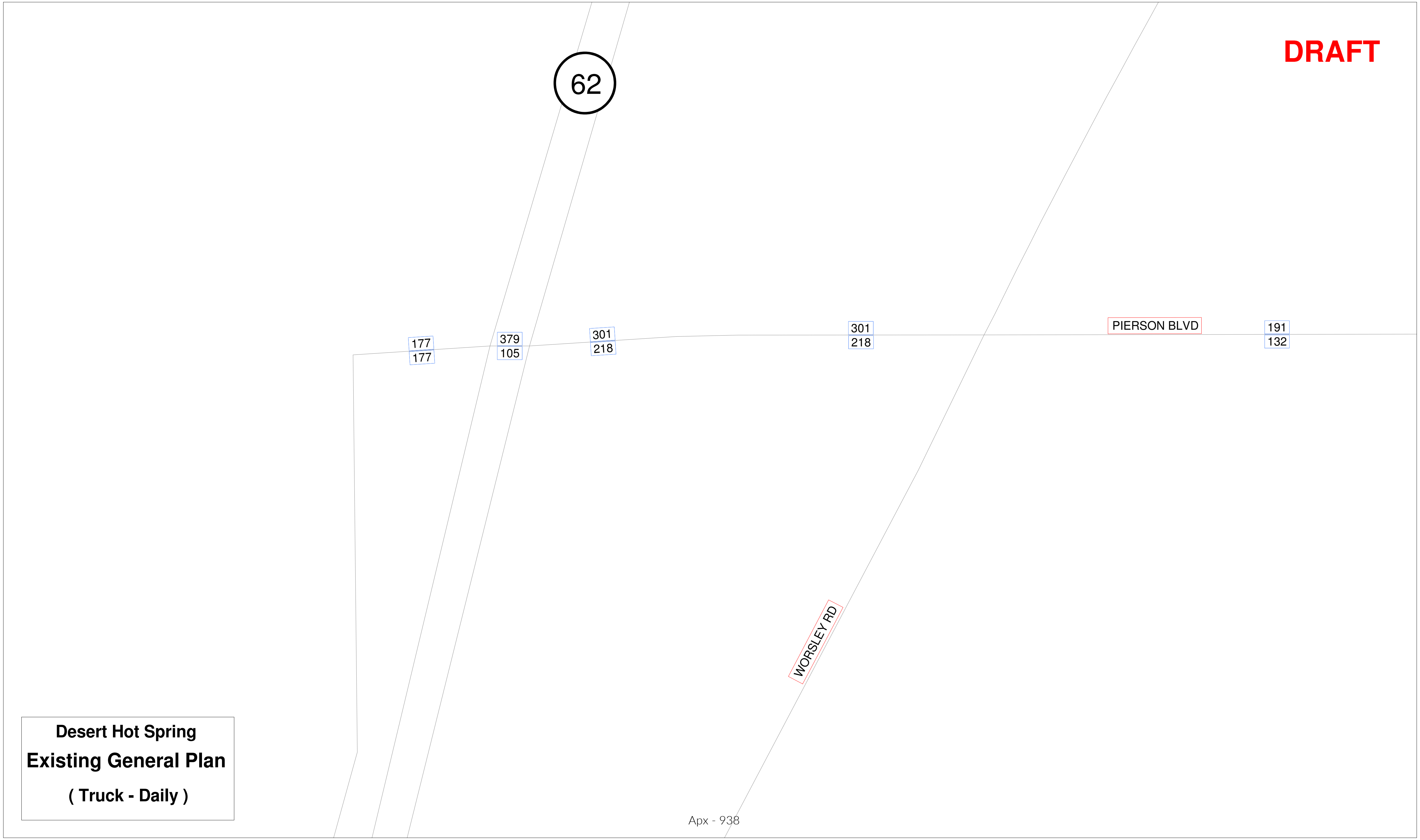

Desert Hot Spring
Existing General Plan
(Daily - Truck)
DRAFT
20
20
109
105
MOUNTAIN VIEW RD
102
99
DILLON RD
121
93
84
73
81
70
45
40
104
91
44
39
18TH AVE
25
25
23
24
4
3

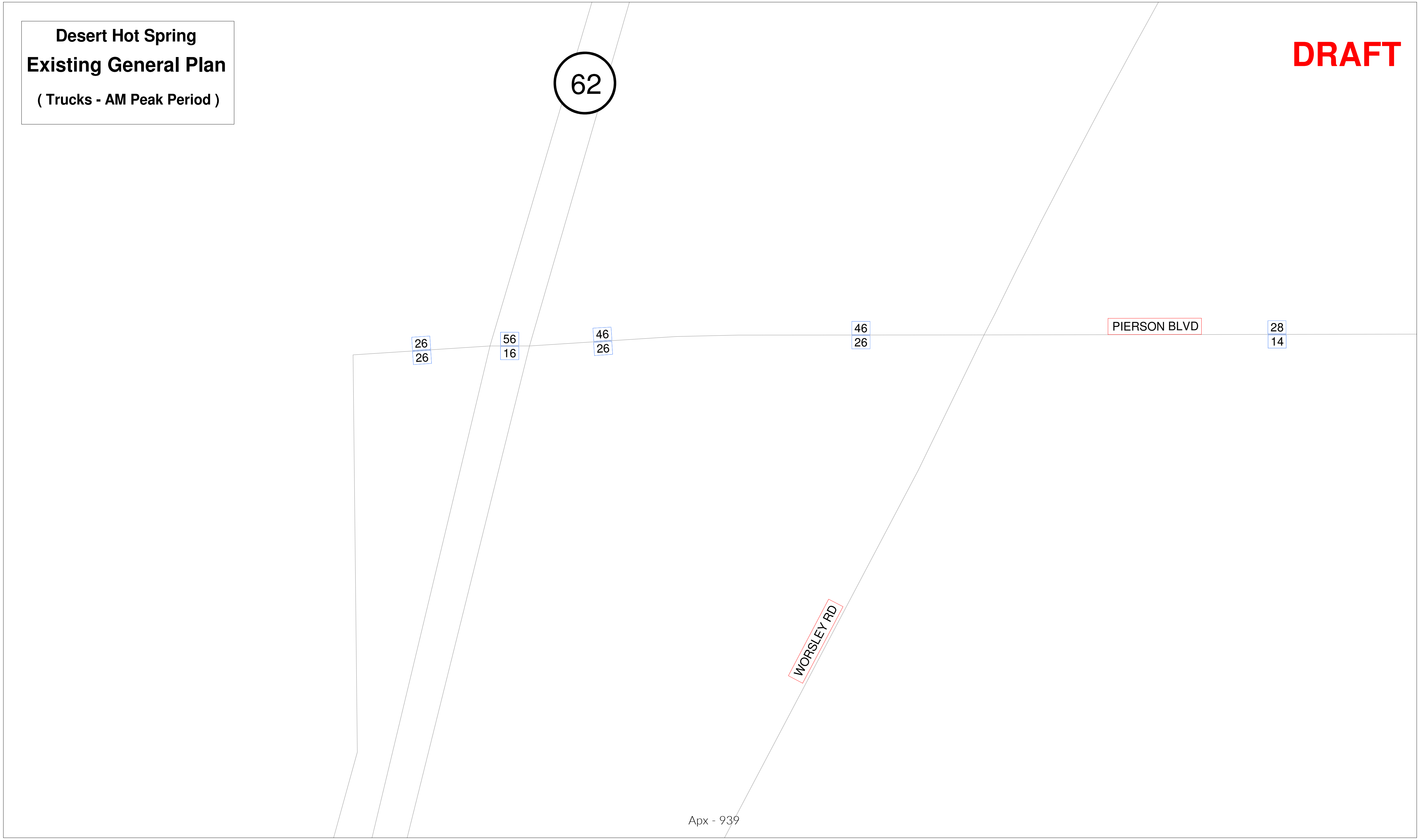

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Auto)
WORSLEY RD
DILLON RD
62
21,985
21,220
804
923
8,106
2,179
7,554
2,068
5,759
13,427
5,759
25,457
17,025
4,209
6,068
6,544
5,132
4,751
6,163
3,953
7,302
3,748
6,774
3,740
6,767
59,804
3,441
8,547
6,003
2,001
8,030
6,111
4,250

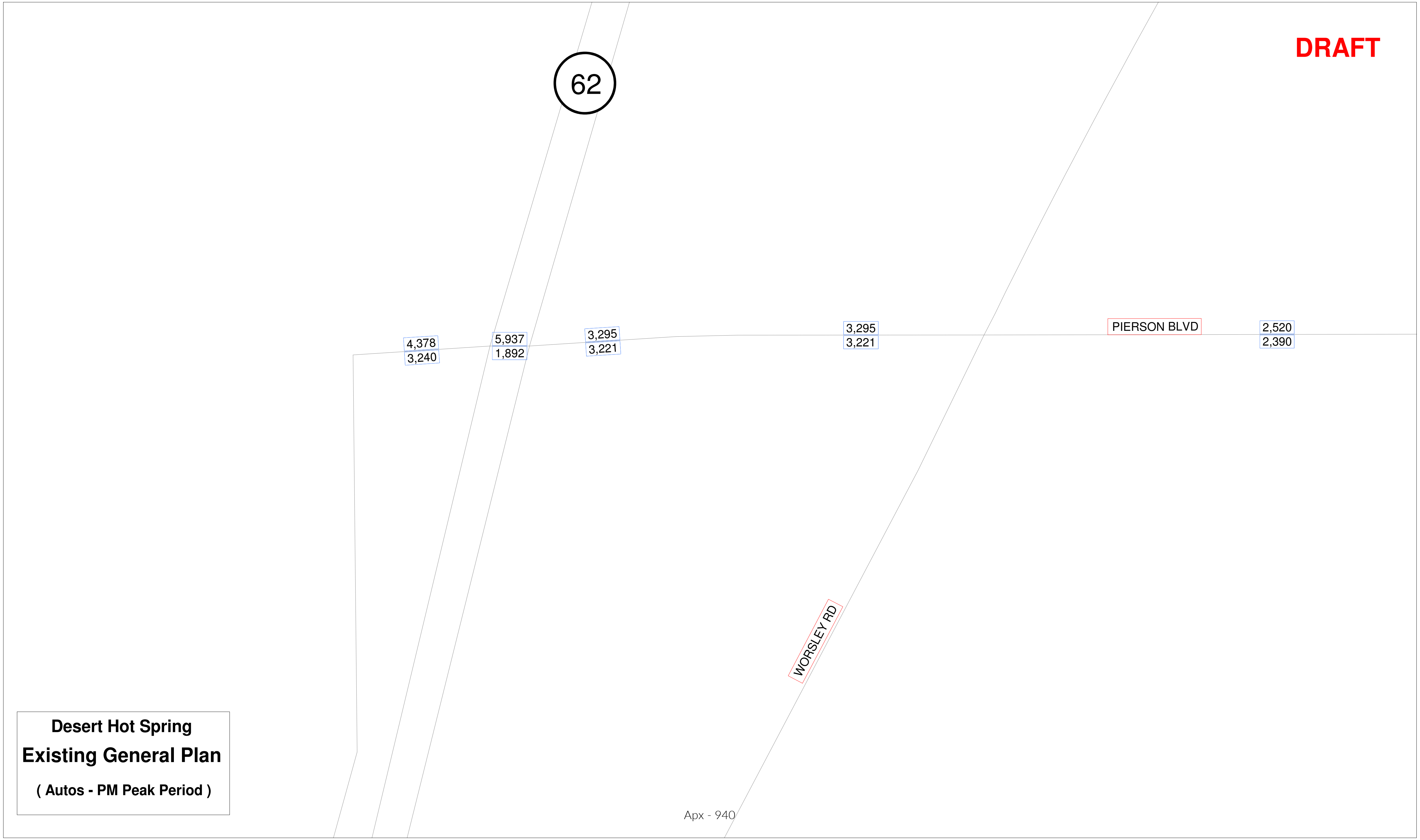

DRAFT
Desert Hot Spring
Existing General Plan
(Daily - Truck)
WORSLEY RD
DILLON RD
62
1,510
1,508
69
66
910
241
818
212
338
1,460
62
513
2,421
1,298
248
152
152
248
123
219
68
365
84
369
59
17,841
131
801
55
156
507
63
514
84
368

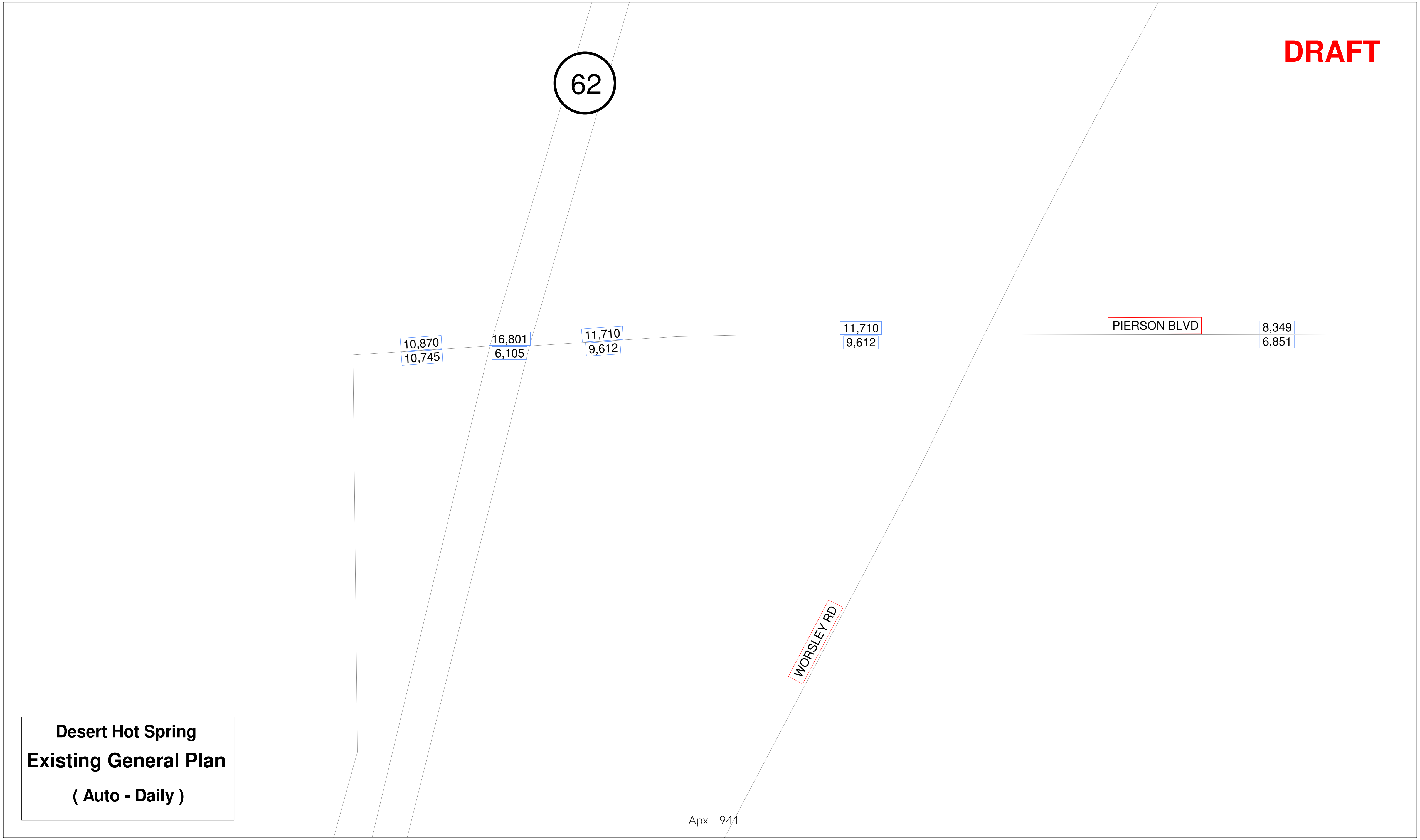
Apx - 936

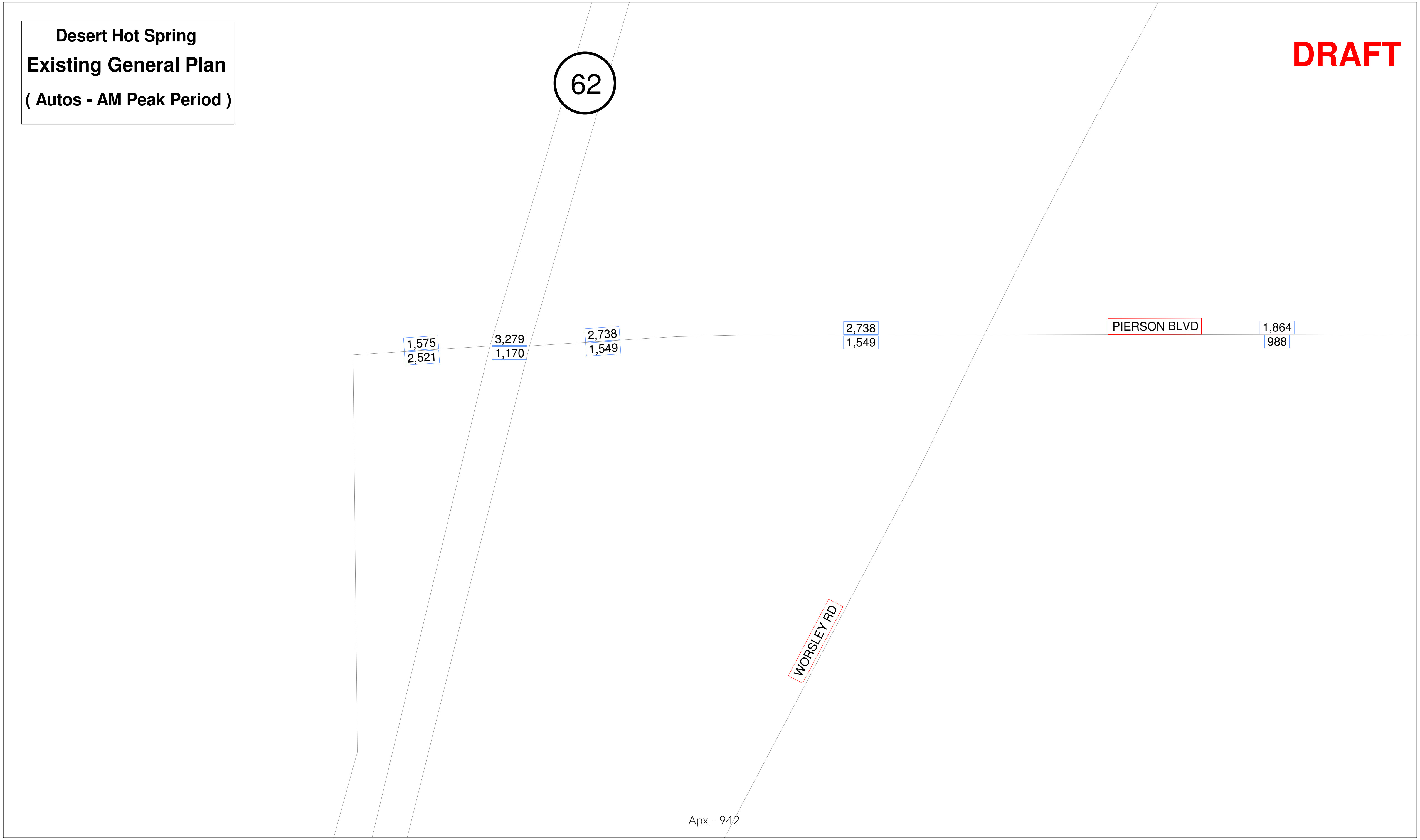

DRAFT
62
40
40
83
23
61
40
61
40
PIERSON BLVD
42
25
WORSLEY RD
Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)


DRAFT
62
177
177
379
105
301
218
301
218
PIERSON BLVD
191
132
WORSLEY RD
Desert Hot Spring
Existing General Plan
(Truck - Daily)

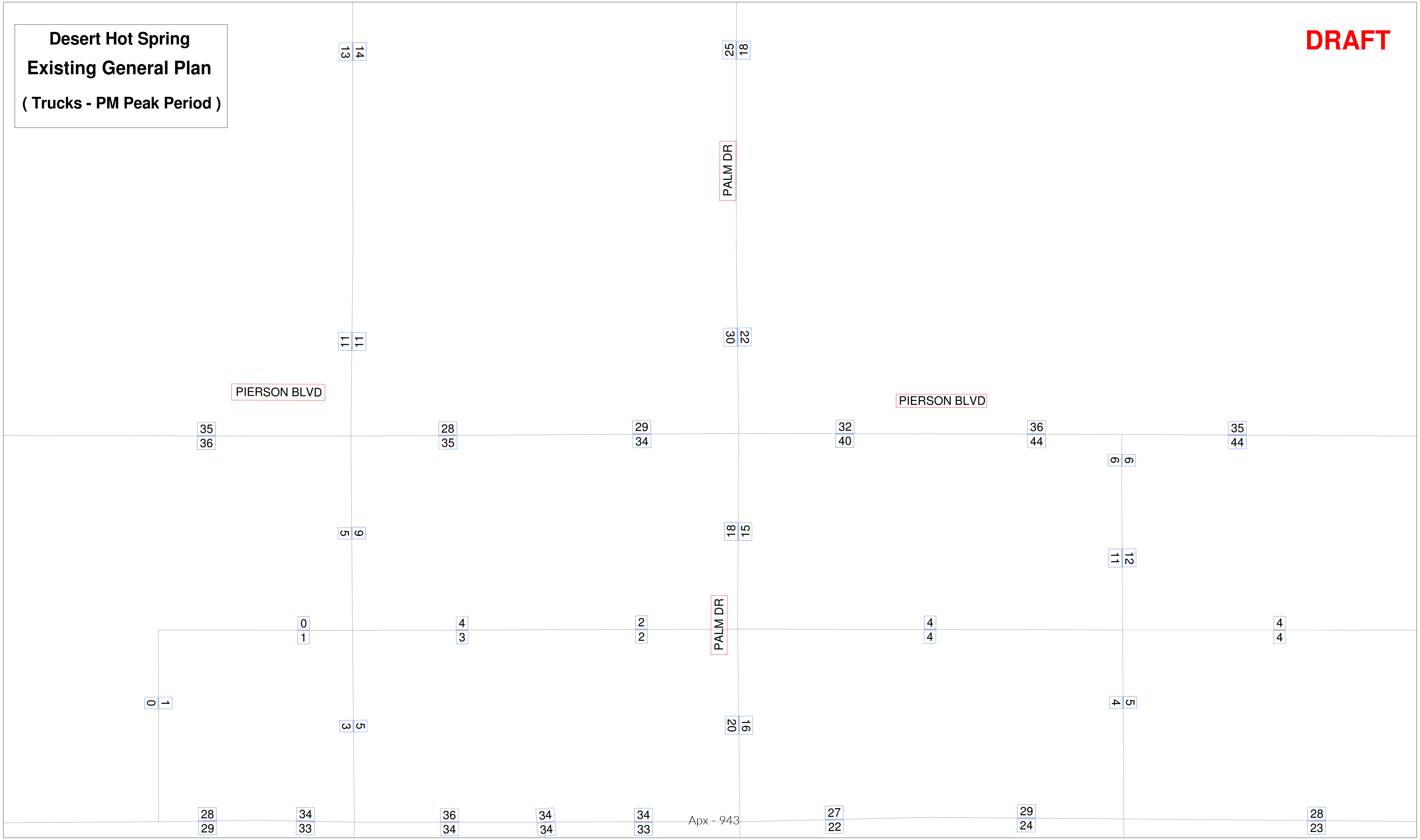

Desert Hot Spring
Existing General Plan
(Trucks - AM Peak Period)
DRAFT
62
26
26
56
16
46
26
46
26
PIERSON BLVD
28
14
WORSLEY RD


DRAFT
62
4,378
3,240
5,937
1,892
3,295
3,221
3,295
3,221
PIERSON BLVD
2,520
2,390
WORSLEY RD
Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)

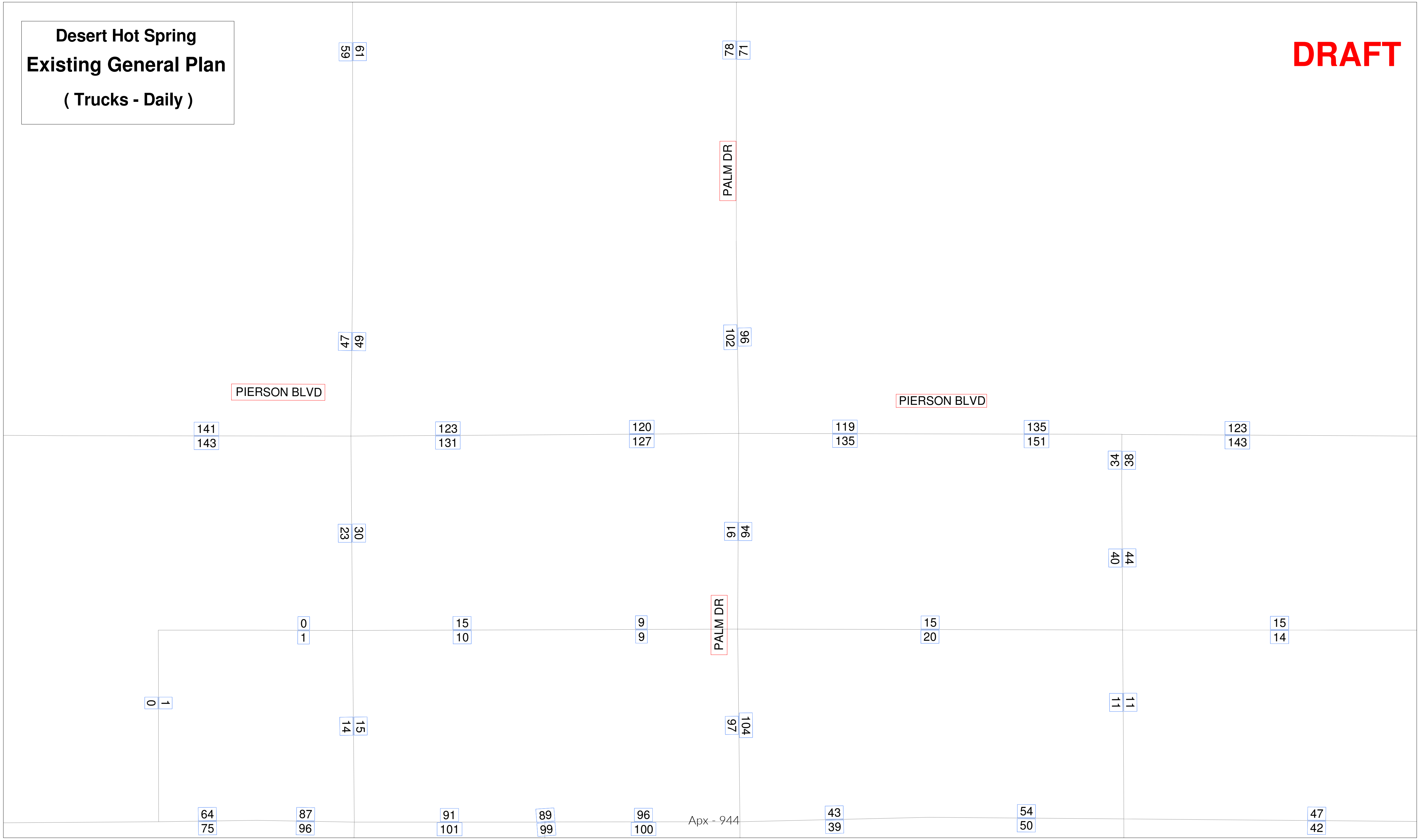

DRAFT
62
10,870
10,745
16,801
6,105
11,710
9,612
11,710
9,612
PIERSON BLVD
8,349
6,851
WORSLEY RD
Desert Hot Spring
Existing General Plan
(Auto - Daily)

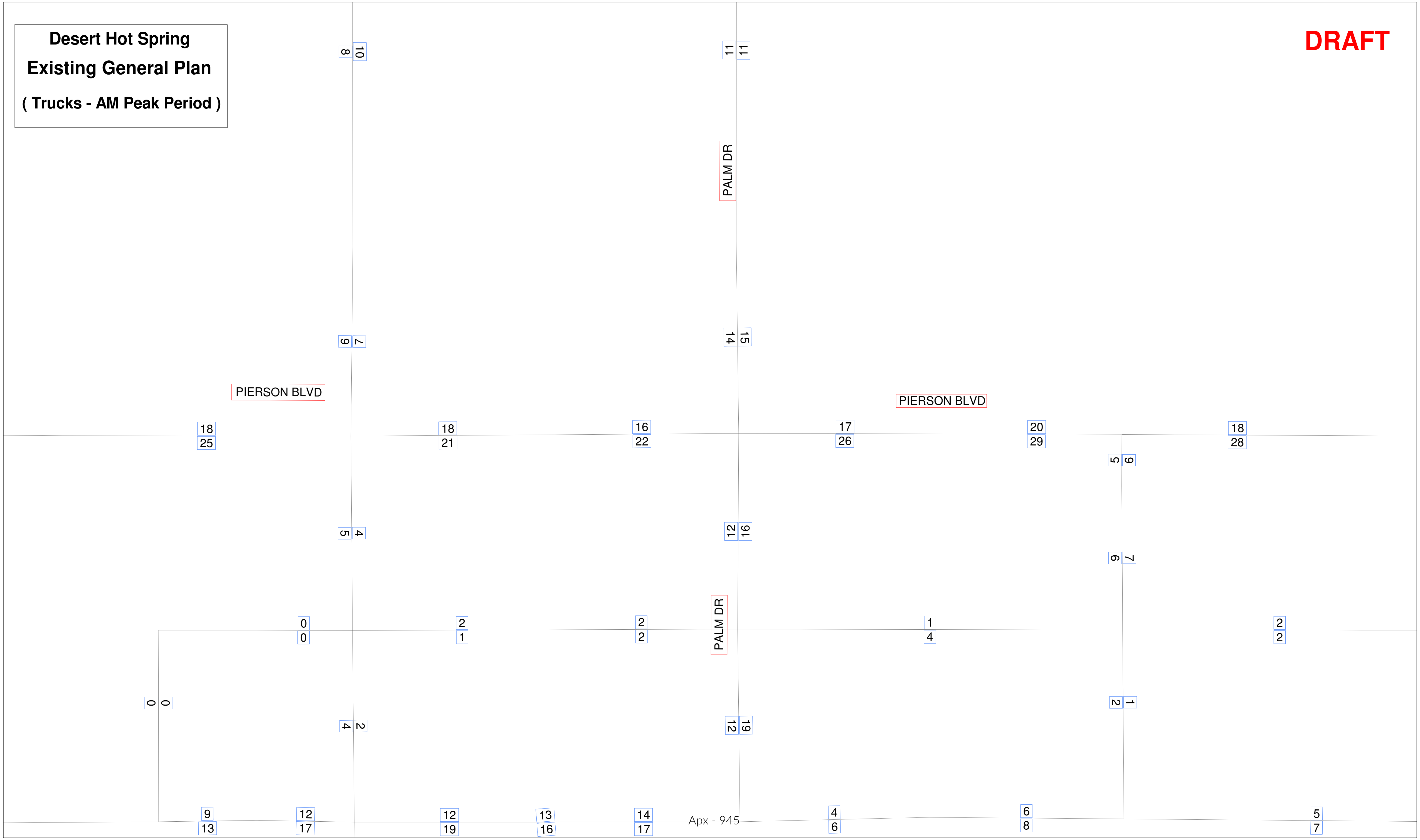


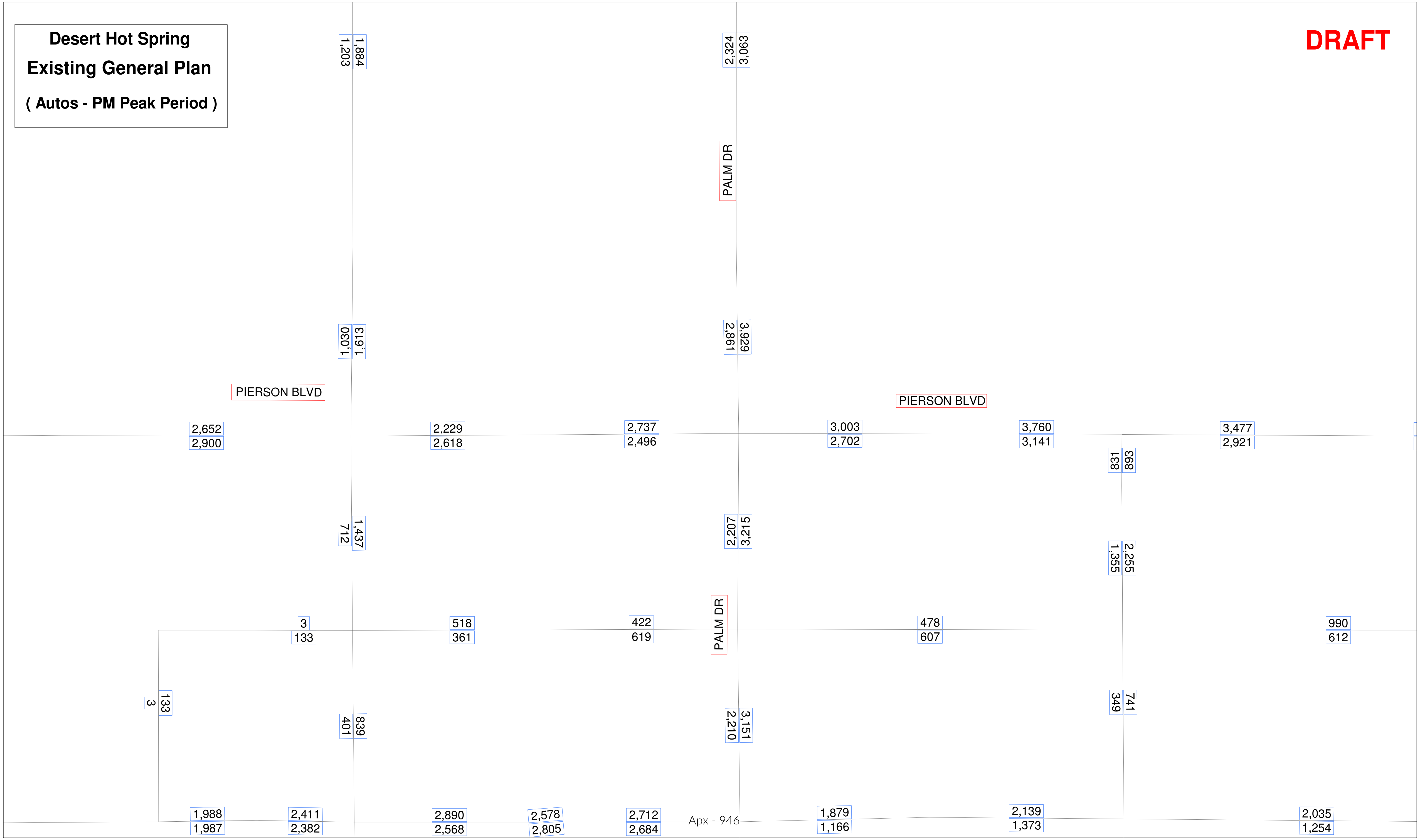
Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)
DRAFT
62
1,575
2,521
3,279
1,170
2,738
1,549
2,738
1,549
PIERSON BLVD
1,864
988
WORSLEY RD

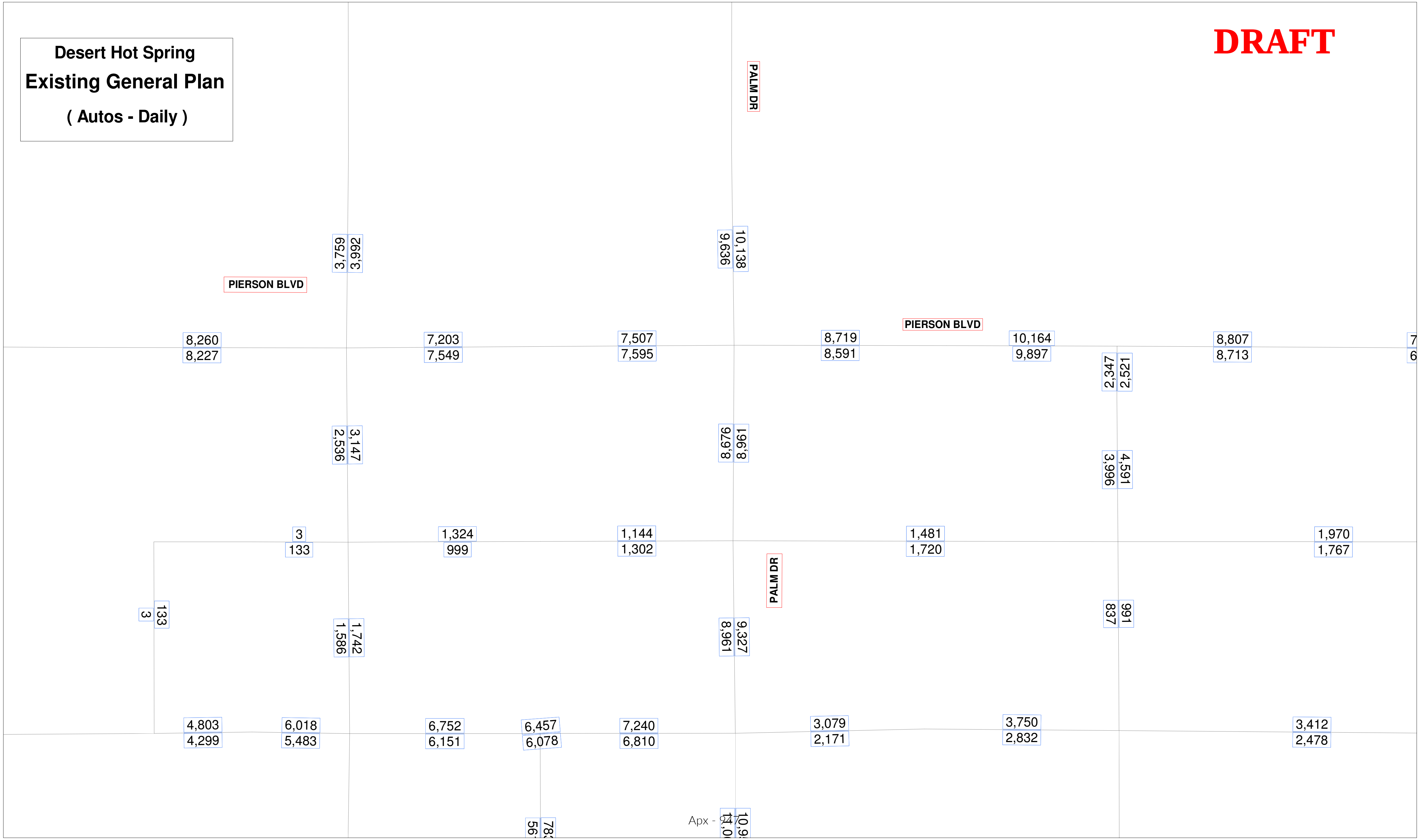


Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)
DRAFT
PALM DR
PIERSON BLVD
PIERSON BLVD
PALM DR
13 14
25 18
11 11
30 22
35 36
28 35
29 34
32 40
36 44
35 44
9 9
5 9
18 15
11 12
0 1
4 3
2 2
4 4
4 4
0 1
3 5
20 16
4 5
28 29
34 33
36 34
34 34
34 33
27 22
29 24
28 23


Desert Hot Spring
Existing General Plan
(Trucks - Daily)
DRAFT
PALM DR
PALM DR
PIERSON BLVD
PIERSON BLVD
59 61
78 71
47 49
102 96
141 143
123 131
120 127
119 135
135 151
123 143
34 38
23 30
91 94
40 44
0 1
15 10
9 9
15 20
15 14
0 1
14 15
97 104
11 11
64 75
87 96
91 101
89 99
96 100
43 39
54 50
47 42
Apx - 944

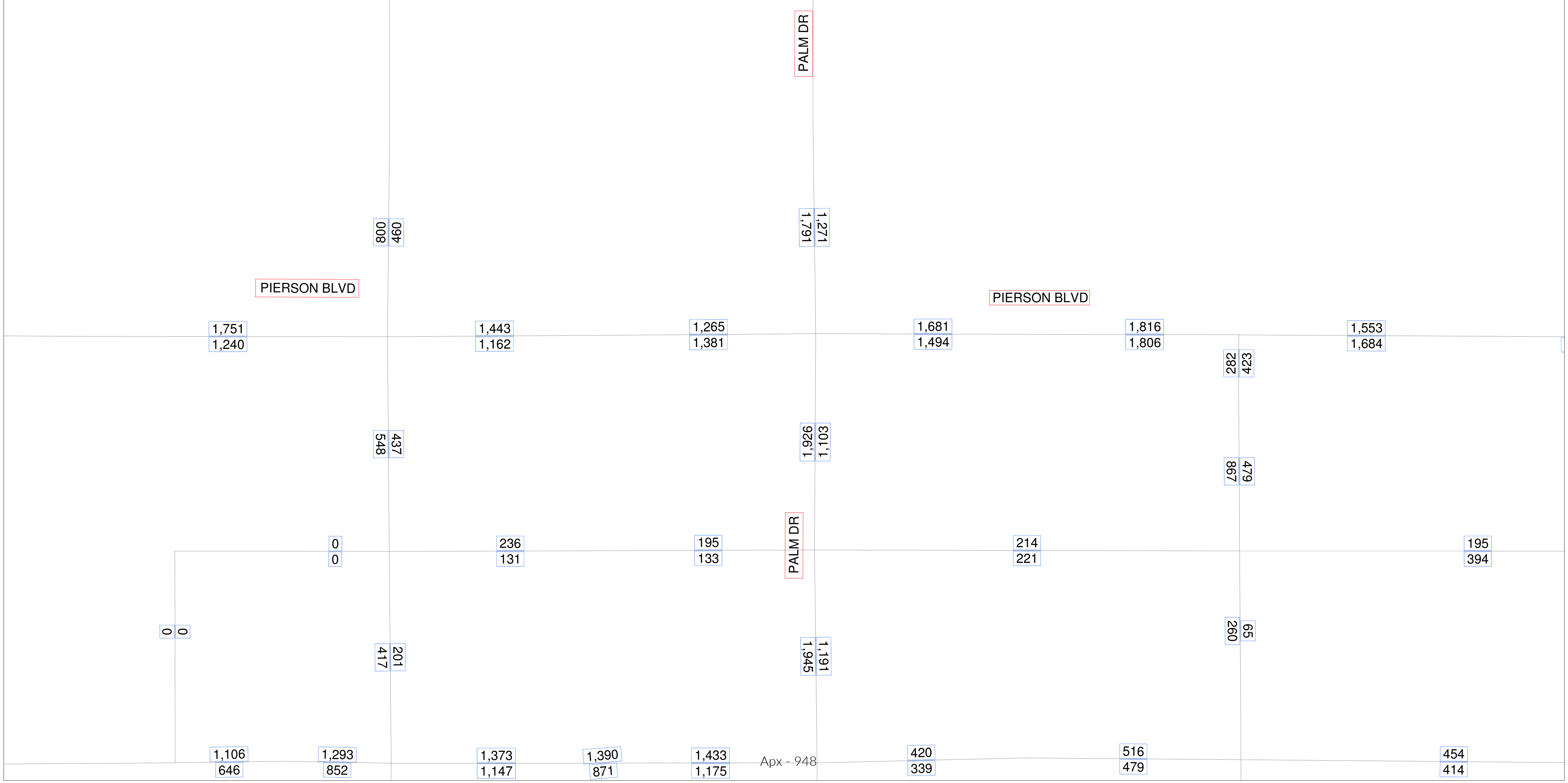

Desert Hot Spring
Existing General Plan
(Trucks - AM Peak Period)
DRAFT
PALM DR
PIERSON BLVD
PIERSON BLVD
PALM DR
8 10
11 11
9 7
14 15
18 25
18 21
16 22
17 26
20 29
18 28
5 6
5 4
12 16
6 7
0 0
2 1
2 2
1 4
2 2
0 0
4 2
12 19
2 1
9 13
12 17
12 19
13 16
14 17
4 6
6 8
5 7


Desert Hot Spring
Existing General Plan
(Autos - PM Peak Period)
DRAFT
PALM DR
PALM DR
PIERSON BLVD
PIERSON BLVD
1,203
1,884
2,324
3,063
1,030
1,913
2,861
3,929
2,652
2,900
2,229
2,618
2,737
2,496
3,003
2,702
3,760
3,141
3,477
2,921
831
893
712
1,437
2,207
3,215
1,355
2,255
3
133
518
361
422
619
478
607
990
612
3
133
401
839
2,210
3,151
349
741
1,988
1,987
2,411
2,382
2,890
2,568
2,578
2,805
2,712
2,684
1,879
1,166
2,139
1,373
2,035
1,254

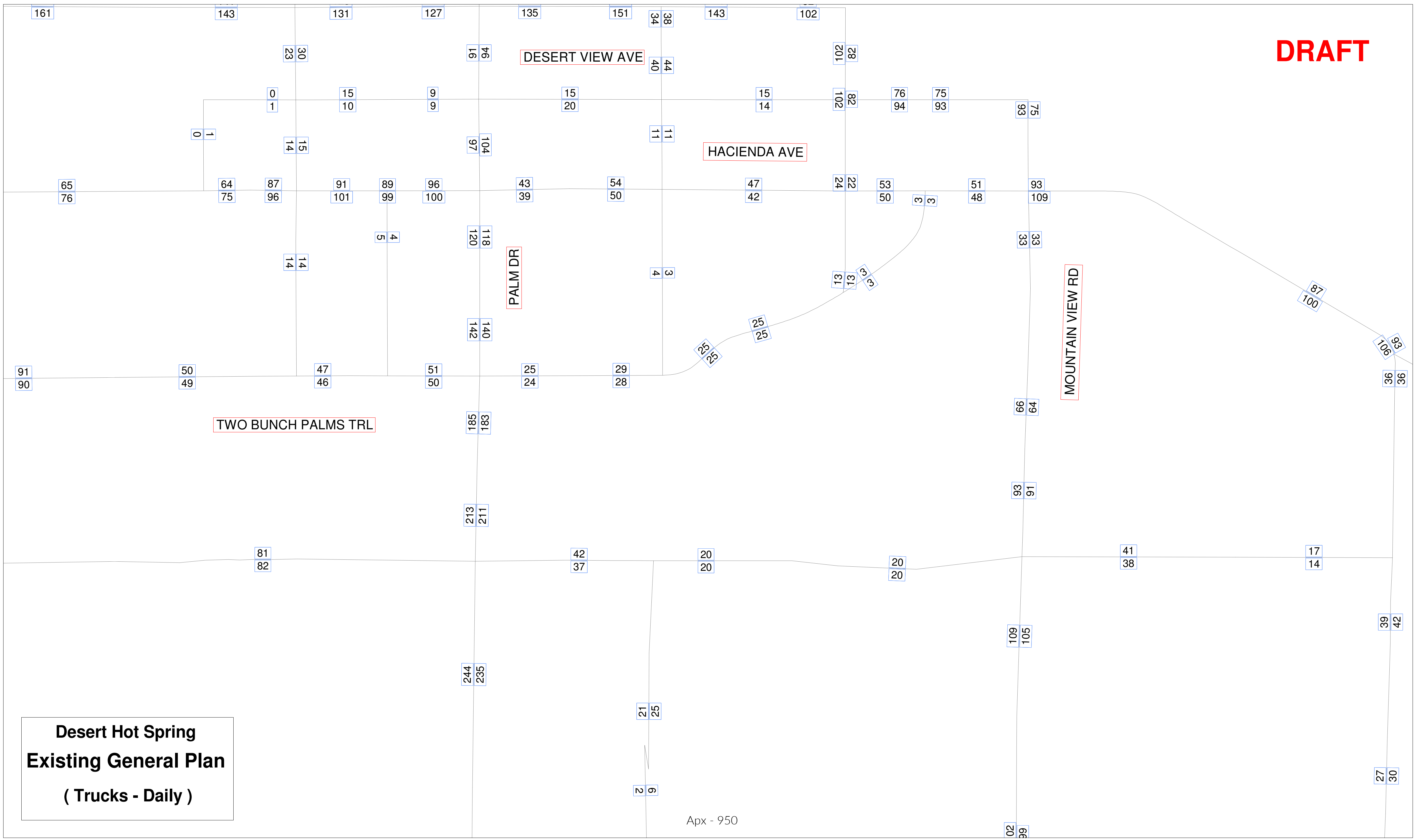

Desert Hot Spring
Existing General Plan
(Autos - Daily)
DRAFT
PALM DR
PIERSON BLVD
PIERSON BLVD
PALM DR
3,759
3,992
9,636
10,138
8,260
8,227
7,203
7,549
7,507
7,595
8,719
8,591
10,164
9,897
8,807
8,713
2,347
2,521
2,536
3,147
8,979
8,961
3,996
4,591
3
133
1,324
999
1,144
1,302
1,481
1,720
1,970
1,767
3
133
1,586
1,742
8,961
9,327
837
991
4,803
4,299
6,018
5,483
6,752
6,151
6,457
6,078
7,240
6,810
3,079
2,171
3,750
2,832
3,412
2,478

Desert Hot Spring
Existing General Plan
(Autos - AM Peak Period)

DRAFT




DRAFT
DESERT VIEW AVE
HACIENDA AVE
PALM DR
MOUNTAIN VIEW RD
TWO BUNCH PALMS TRL
Desert Hot Spring
Existing General Plan
(Trucks - PM Peak Period)



Desert Hot Spring

Existing General Plan

(Trucks - Daily)

PROPOSED GENERAL PLAN BUILDOUT

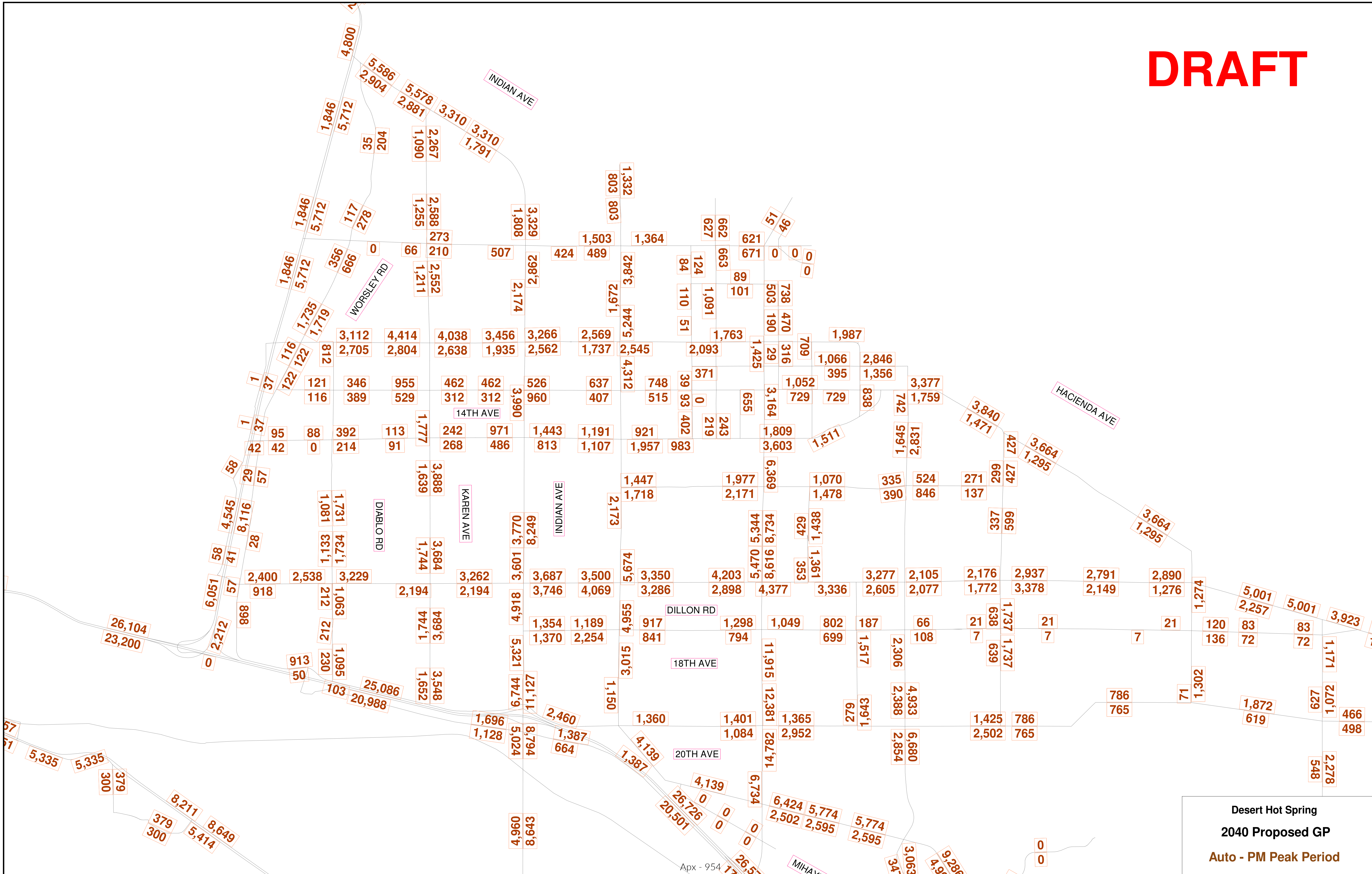

DRAFT
MISSION LAKES BLV
LITTLE MORONGO
WEST DR
HACIENDA
MOUNTAIN VIEW
PIERSON BLVD
DIABLO RD
WORSLEY RD
INDIAN AVE
Two Bunch
PALM DR
DILLON RD
18TH AVE
18TH AVE
VARNER RD
20TH AVE
Desert Hot Spring
Proposed General Plan
(Autos - AM Peak Period)

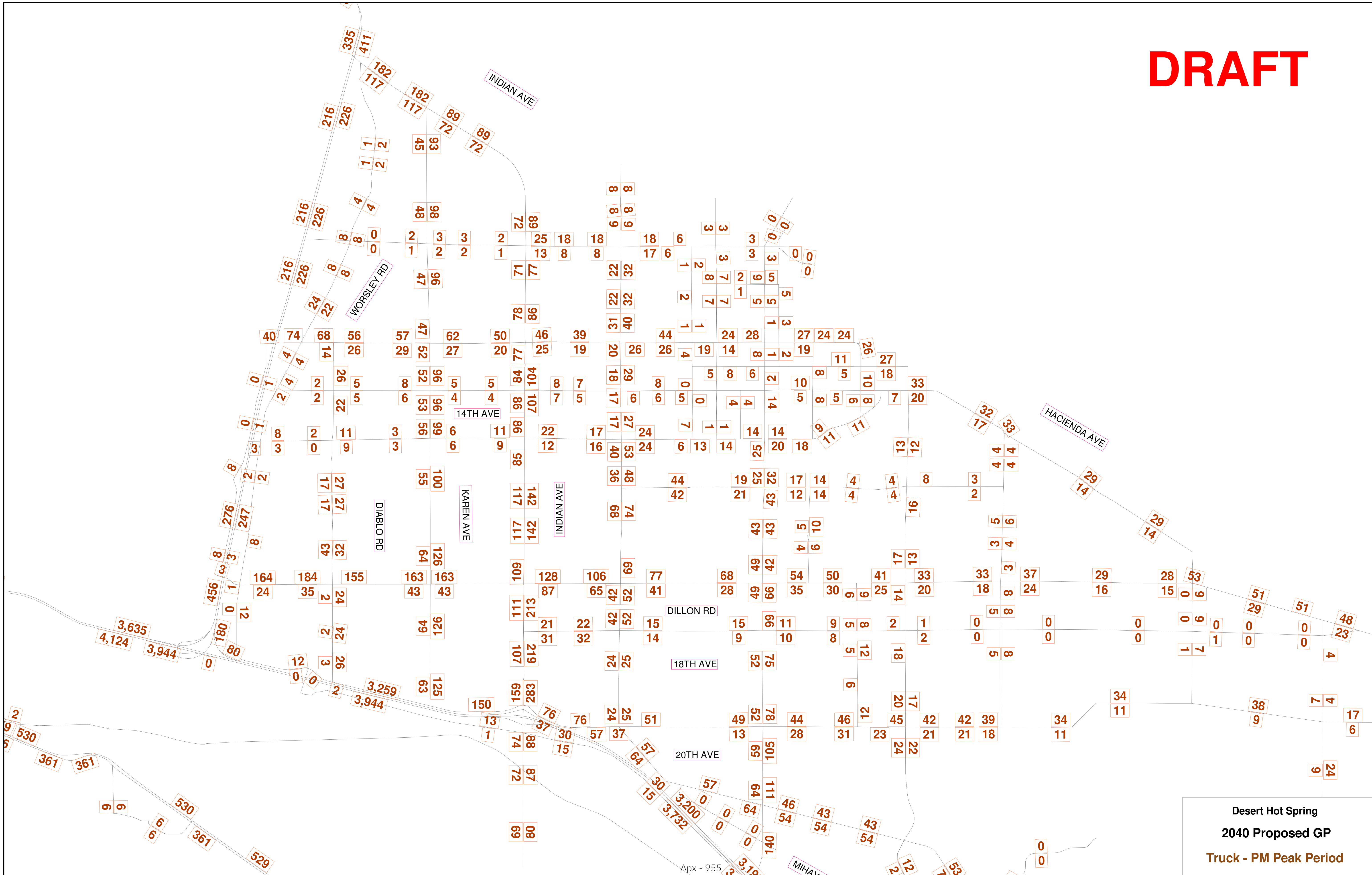
DRAFT

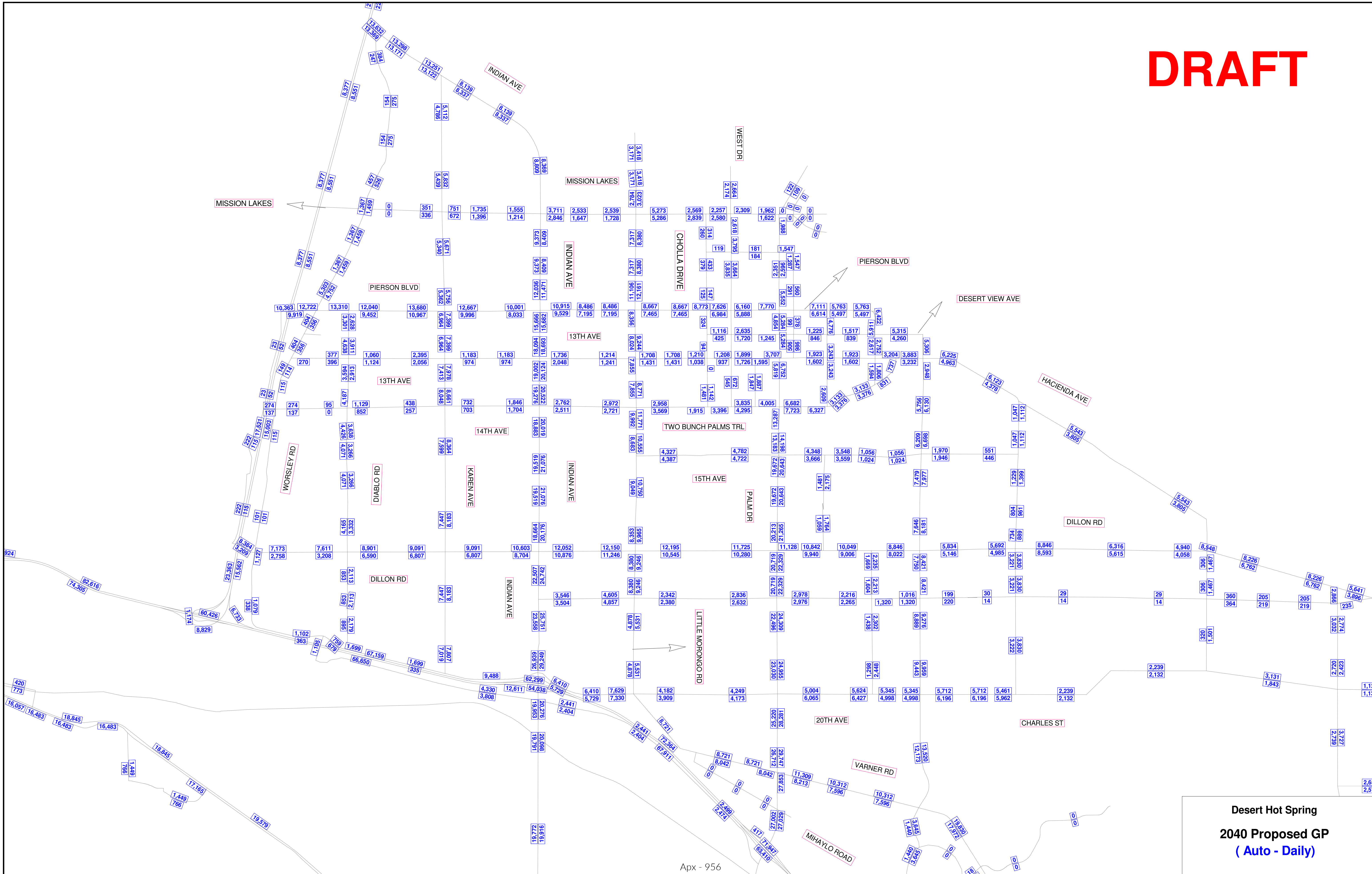
Desert Hot Spring

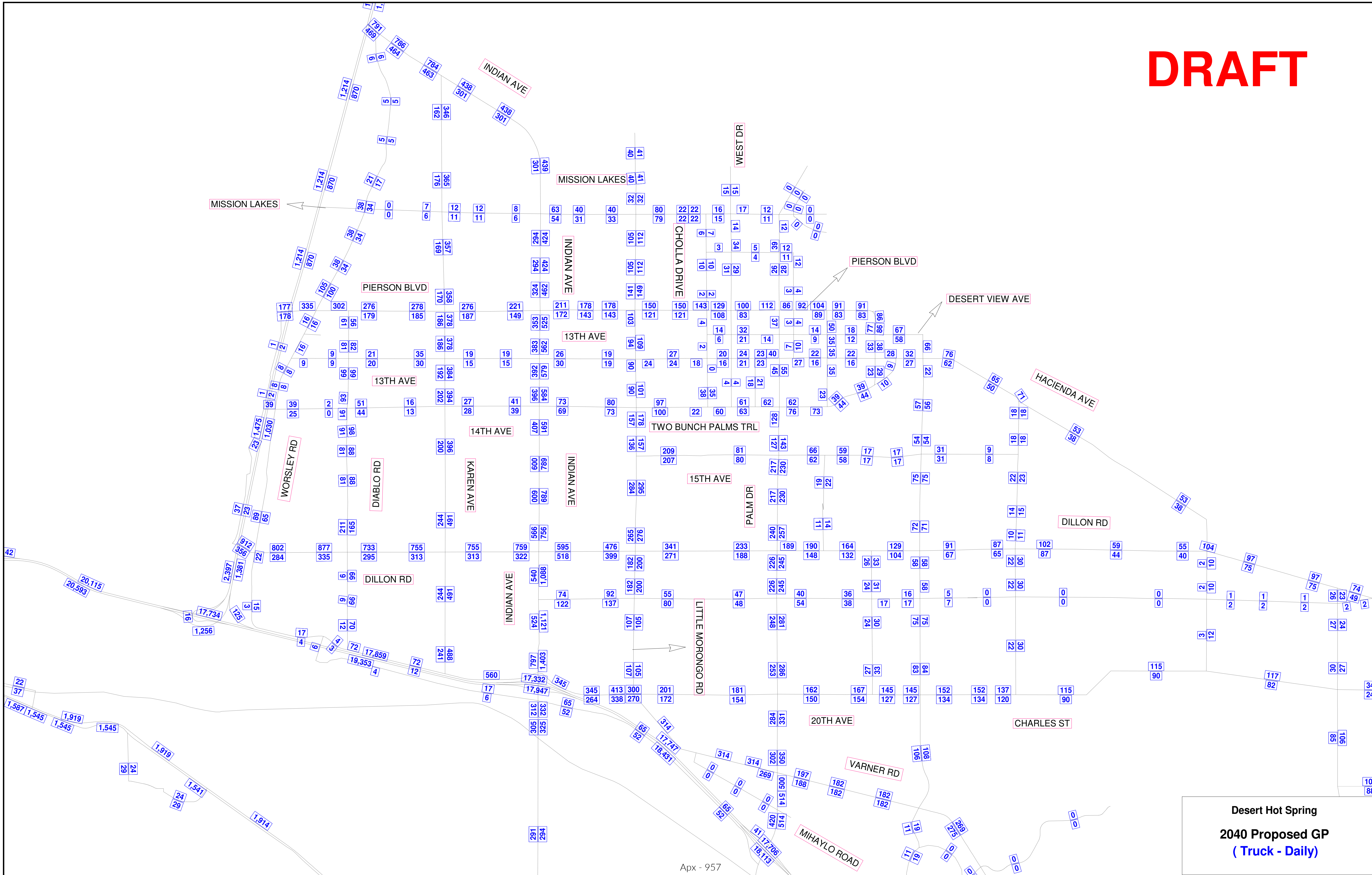
Proposed General Plan

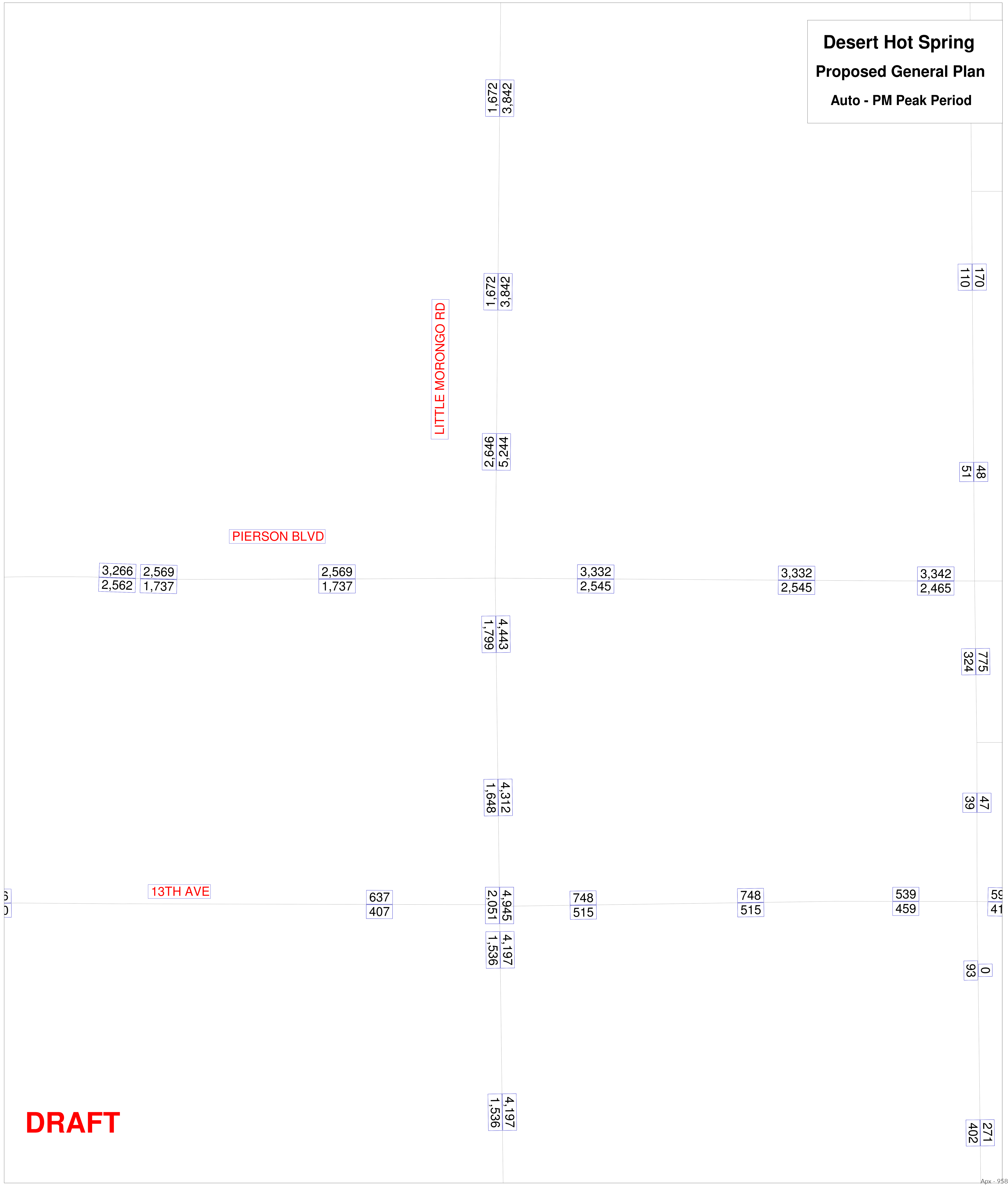
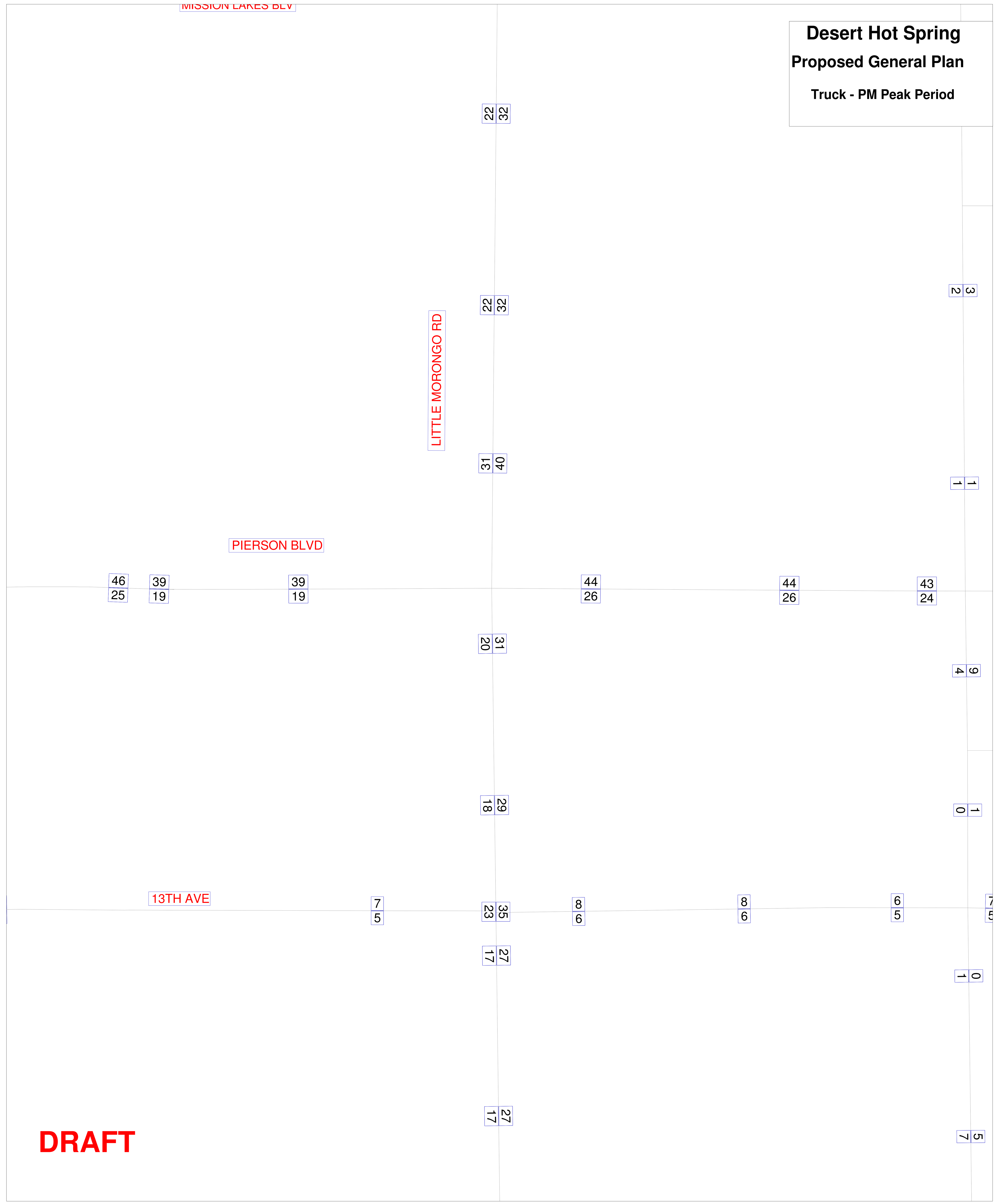
(Trucks - AM Peak Period)

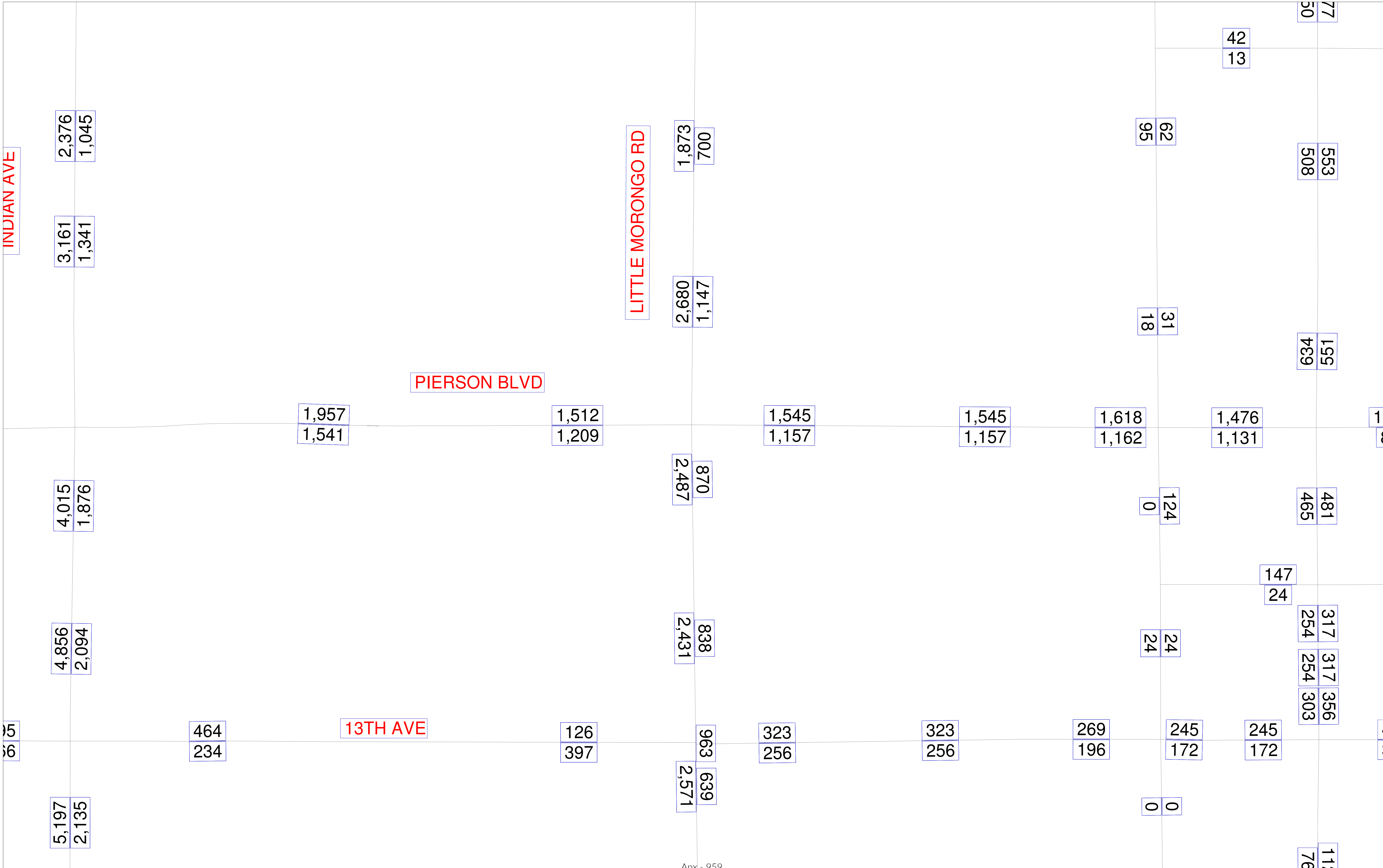

DRAFT
INDIAN AVE
WORSLEY RD
14TH AVE
DIABLO RD
KAREN AVE
INDIAN AVE
HACIENDA AVE
DILLON RD
18TH AVE
20TH AVE
Desert Hot Spring
2040 Proposed GP
Auto - PM Peak Period
Apx - 954

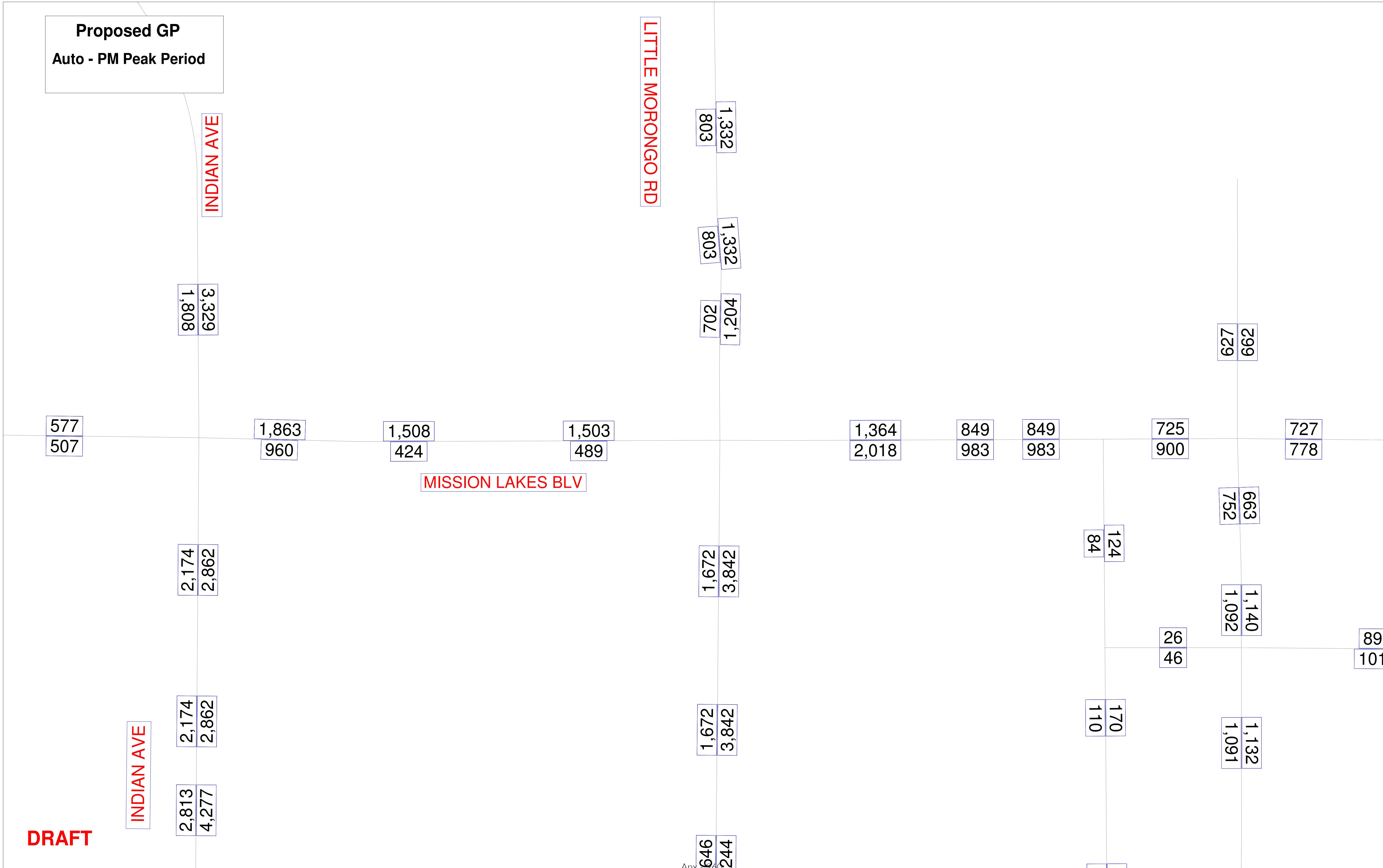

DRAFT
INDIAN AVE
WORSLEY RD
14TH AVE
HACIENDA AVE
DIABLO RD
KAREN AVE
INDIAN AVE
DILLON RD
18TH AVE
20TH AVE
Apx - 955
Desert Hot Spring
2040 Proposed GP
Truck - PM Peak Period


DRAFT
MISSION LAKES
INDIAN AVE
WEST DR
CHOLLA DRIVE
PIERSON BLVD
DESERT VIEW AVE
13TH AVE
HACIENDA AVE
TWO BUNCH PALMS TRL
14TH AVE
15TH AVE
WORSLEY RD
DIABLO RD
KAREN AVE
PALM DR
DILLON RD
LITTLE MORONGO RD
20TH AVE
CHARLES ST
VARNER RD
MIHAYLO ROAD
Desert Hot Spring
2040 Proposed GP
(Auto - Daily)

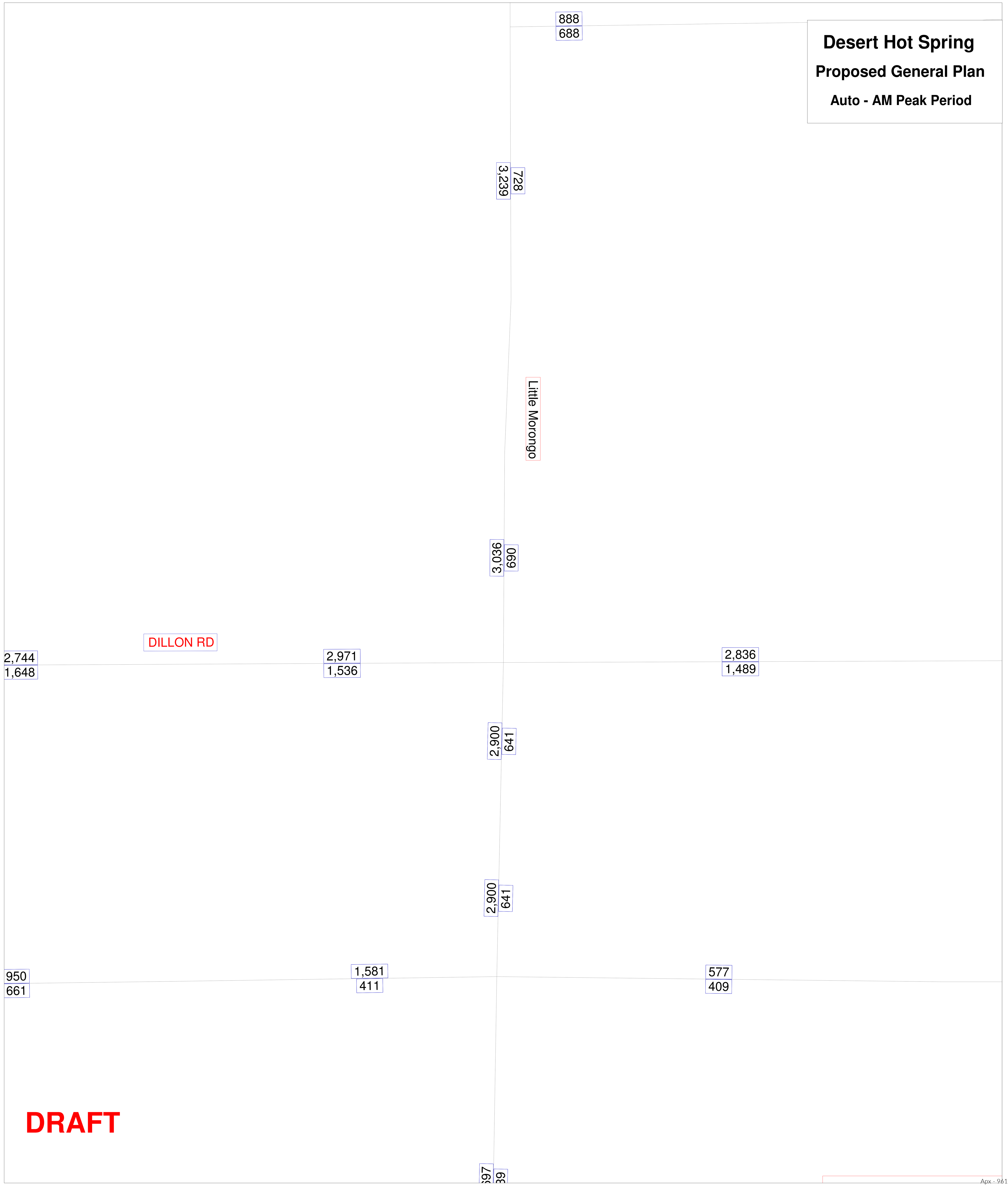

DRAFT
Desert Hot Spring
2040 Proposed GP
(Truck - Daily)
INDIAN AVE
MISSION LAKES
WEST DR
CHOLLA DRIVE
PIERSON BLVD
DESERT VIEW AVE
13TH AVE
HACIENDA AVE
14TH AVE
TWO BUNCH PALMS TRL
WORSLEY RD
DIABLO RD
KAREN AVE
15TH AVE
PALM DR
DILLON RD
LITTLE MORONGO RD
20TH AVE
CHARLES ST
VARNER RD
MIHAYLO ROAD

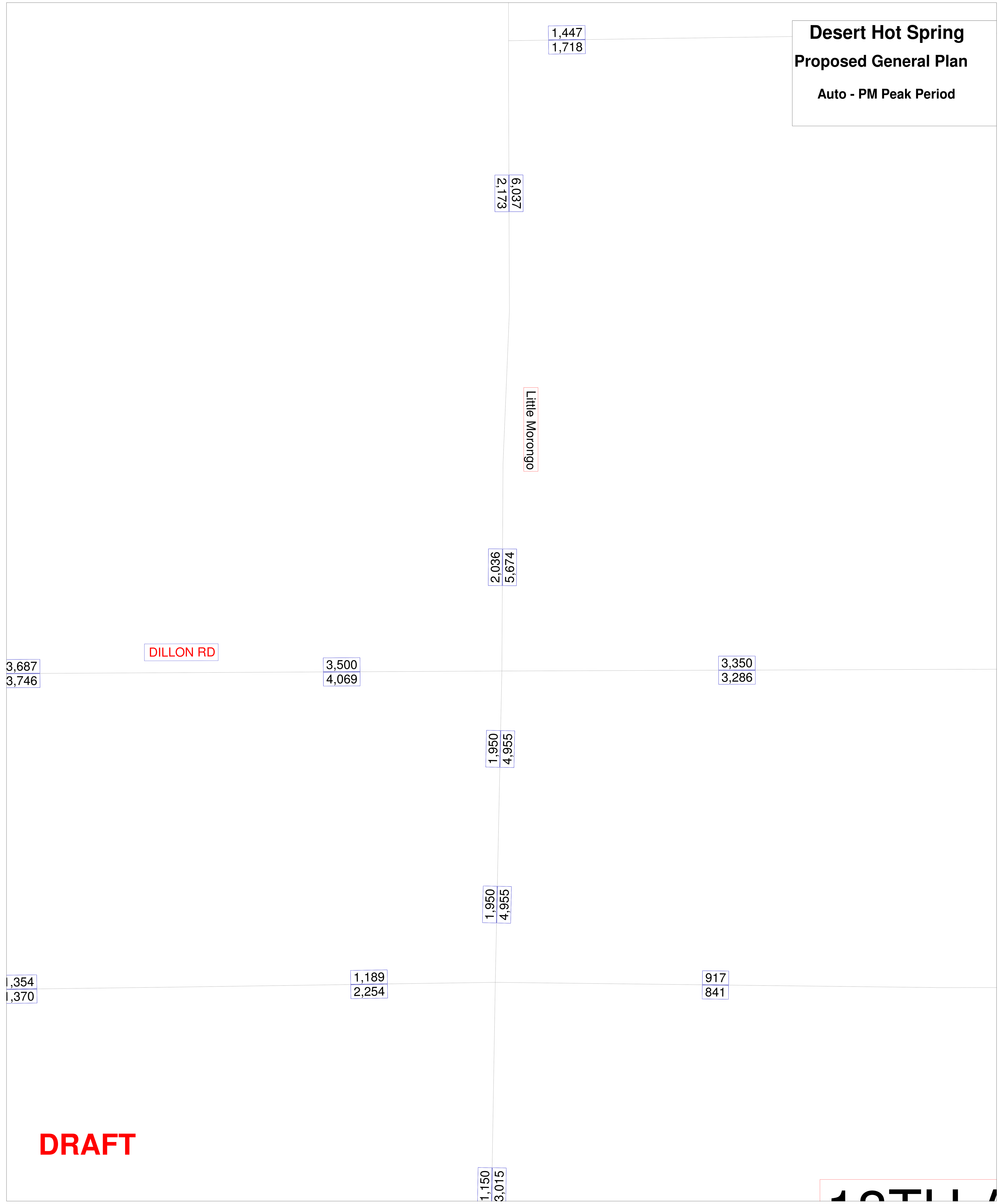

Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
LITTLE MORONGO RD
PIERSON BLVD
13TH AVE
1,672 3,842
1,672 3,842
2,646 5,244
170 110
51 48
3,266 2,562
2,569 1,737
2,569 1,737
3,332 2,545
3,332 2,545
3,342 2,465
1,799 4,443
324 775
1,648 4,312
39 47
637 407
2,051 4,945
748 515
748 515
539 459
1,536 4,197
93 0
1,536 4,197
402 271
DRAFT

Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
LITTLE MORONGO RD
PIERSON BLVD
13TH AVE
22 32
22 32
31 40
2 3
1 1
46 25
39 19
39 19
44 26
44 26
43 24
20 31
4 9
18 29
0 1
7 5
23 35
8 6
8 6
6 5
17 27
1 0
17 27
7 5
DRAFT

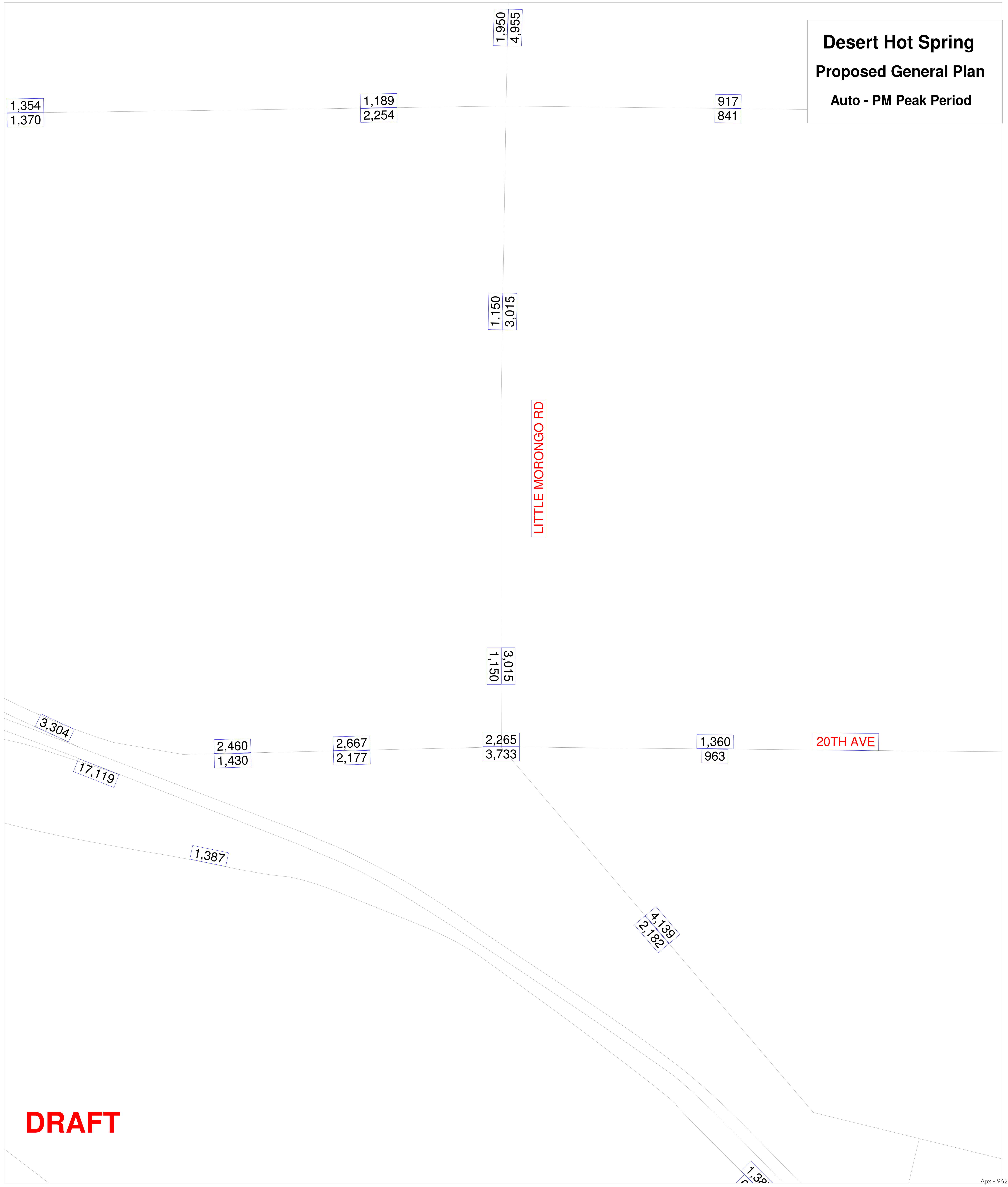

INDIAN AVE
LITTLE MORONGO RD
PIERSON BLVD
13TH AVE
2,376
1,045
3,161
1,341
4,015
1,876
4,856
2,094
5,197
2,135
1,957
1,541
1,512
1,209
1,873
700
2,680
1,147
2,487
870
2,431
838
963
2,571
639
464
234
126
397
323
256
1,545
1,157
1,545
1,157
323
256
1,618
1,162
269
196
1,476
1,131
95
62
18
31
0
124
24
24
0
0
245
172
245
172
42
13
147
24
508
553
634
551
465
481
254
317
254
317
303
356
76
112



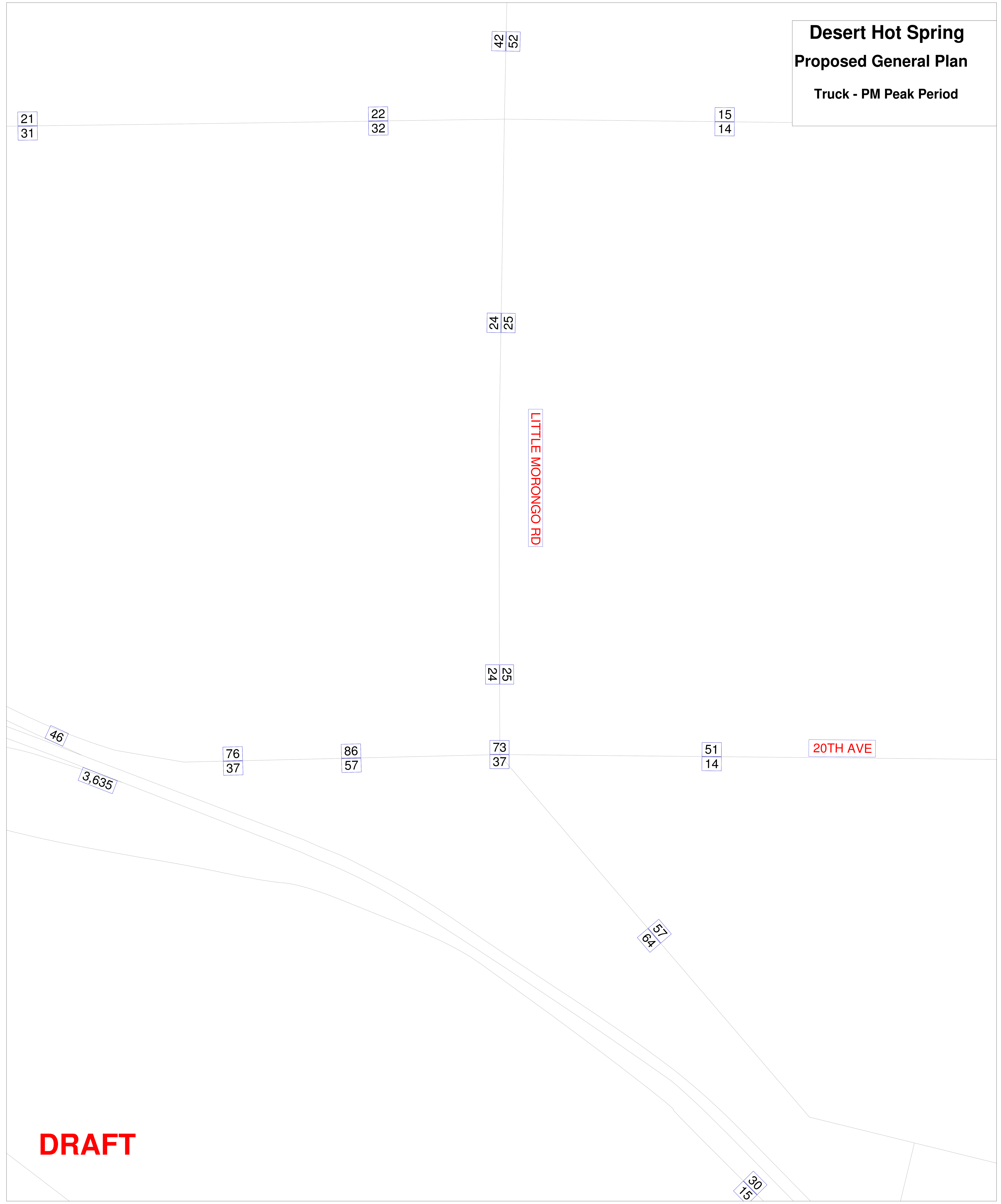
Proposed GP
Auto - PM Peak Period
INDIAN AVE
LITTLE MORONGO RD
MISSION LAKES BLV
INDIAN AVE
DRAFT
803
1,332
803
1,332
702
1,204
1,808
3,329
627
667
577
507
1,863
960
1,508
424
1,503
489
1,364
2,018
849
983
849
983
725
900
727
778
752
663
84
124
2,174
2,862
1,672
3,842
1,092
1,140
26
46
89
101
2,174
2,862
1,672
3,842
110
170
1,091
1,132
2,813
4,277


Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
888
688
3,239
728
Little Morongo
3,036
690
DILLON RD
2,744
1,648
2,971
1,536
2,836
1,489
2,900
641
2,900
641
950
661
1,581
411
577
409
DRAFT

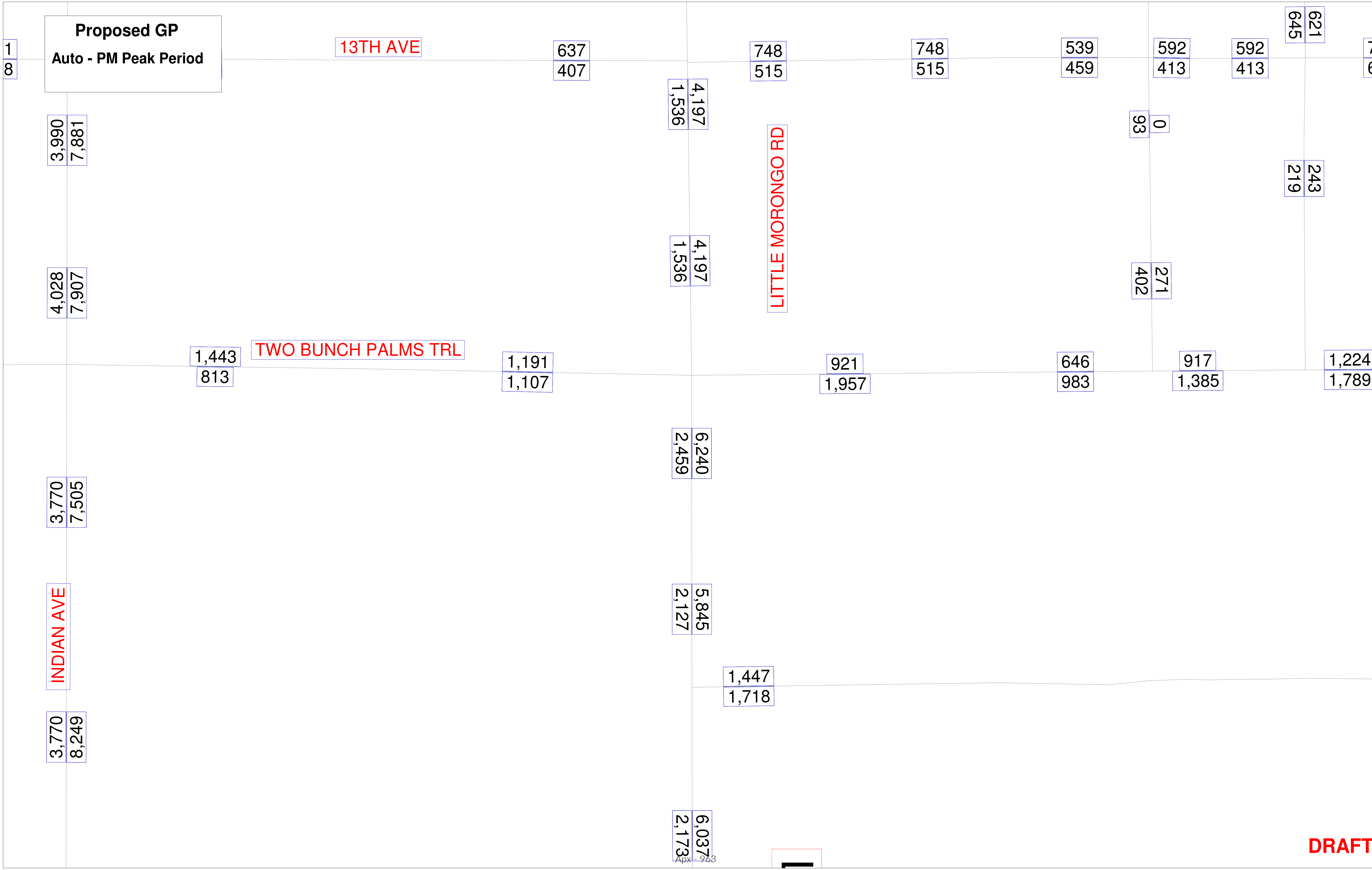

Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
1,447
1,718
2,173
6,037
Little Morongo
2,036
5,674
DILLON RD
3,687
3,746
3,500
4,069
3,350
3,286
1,950
4,955
1,950
4,955
1,354
1,370
1,189
2,254
917
841
1,150
3,015
DRAFT

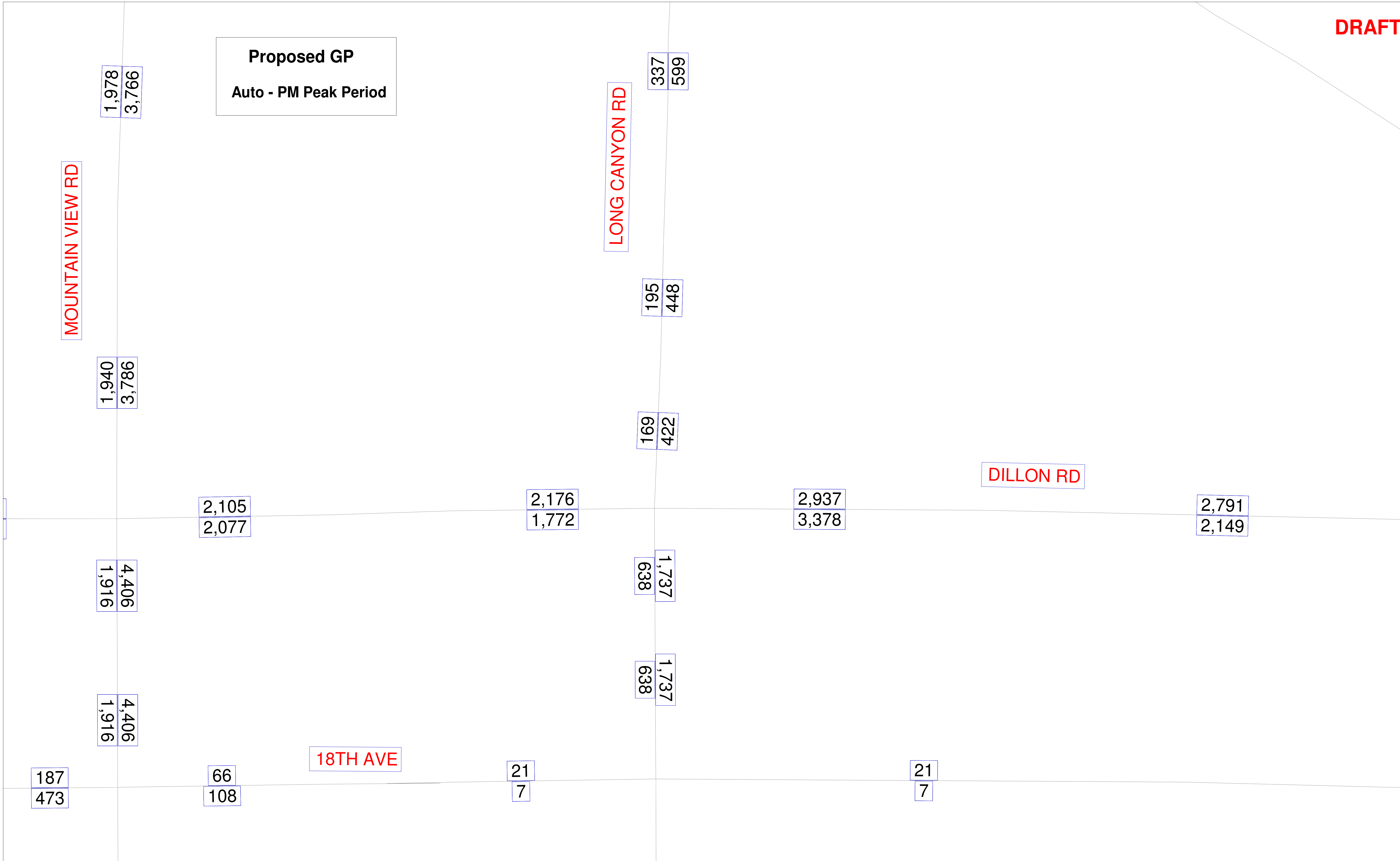


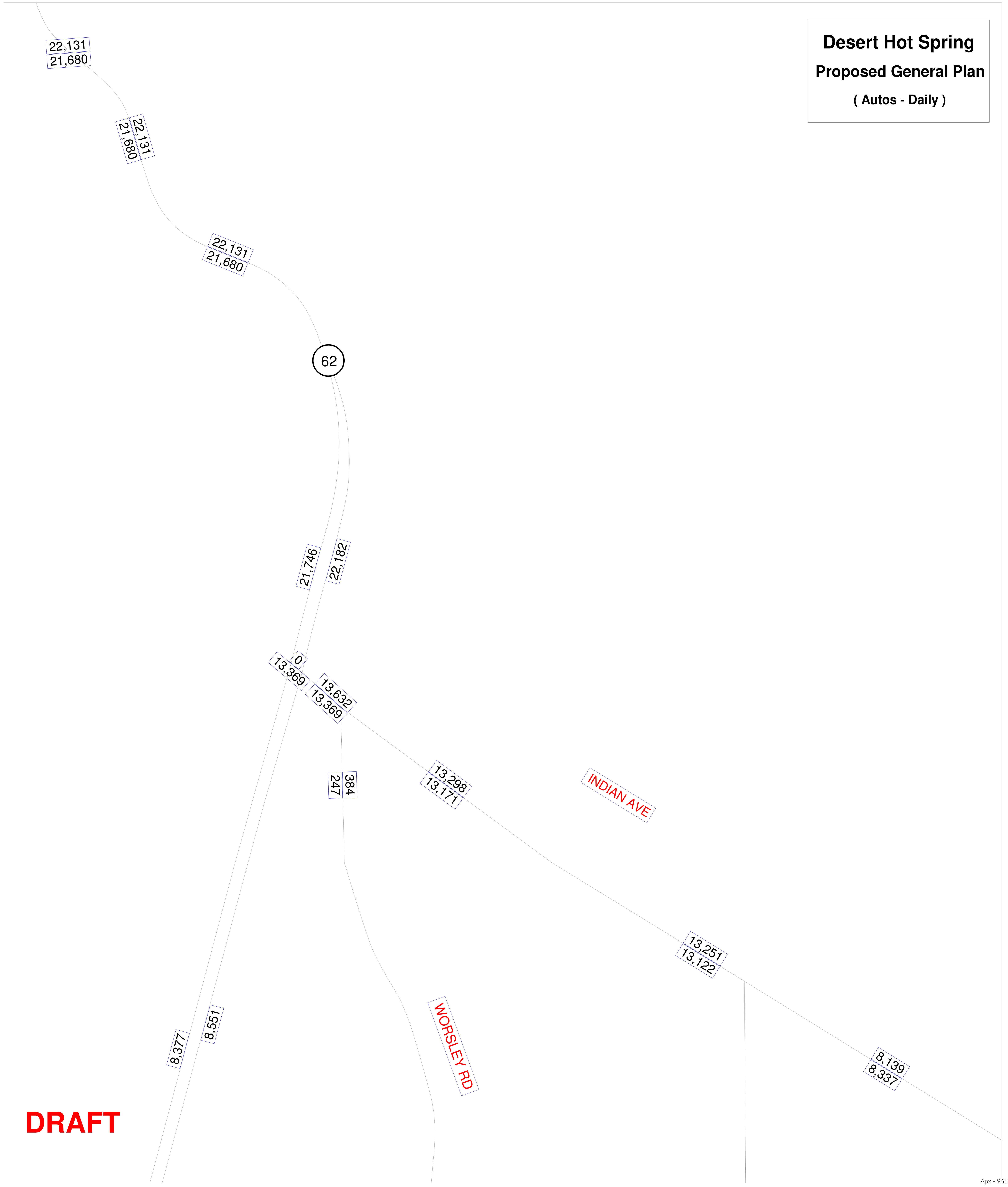
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
1,950
4,955
1,354
1,370
1,189
2,254
917
841
1,150
3,015
LITTLE MORONGO RD
1,150
3,015
3,304
2,460
1,430
2,667
2,177
2,265
3,733
1,360
963
20TH AVE
17,119
1,387
4,139
2,182
DRAFT

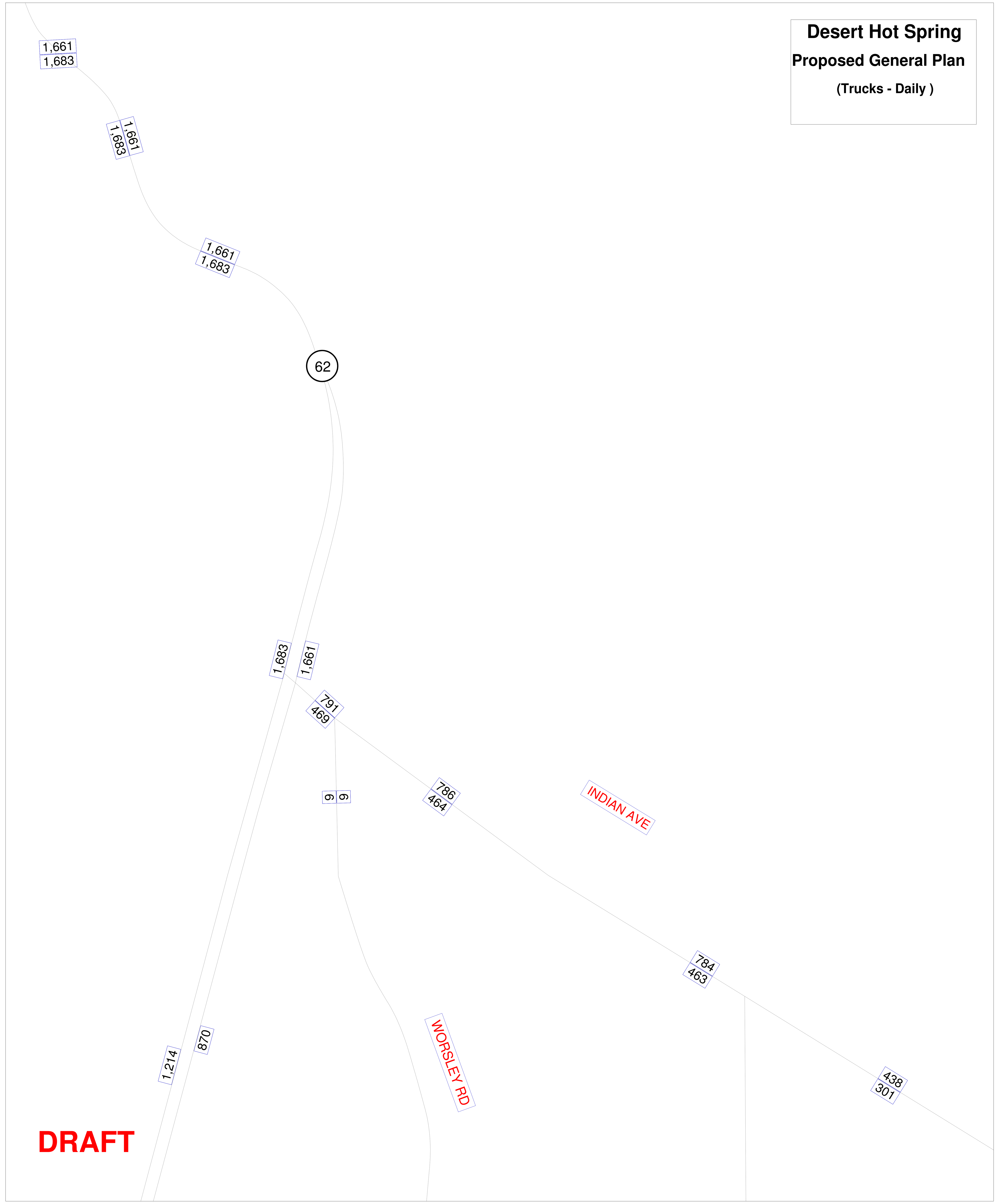


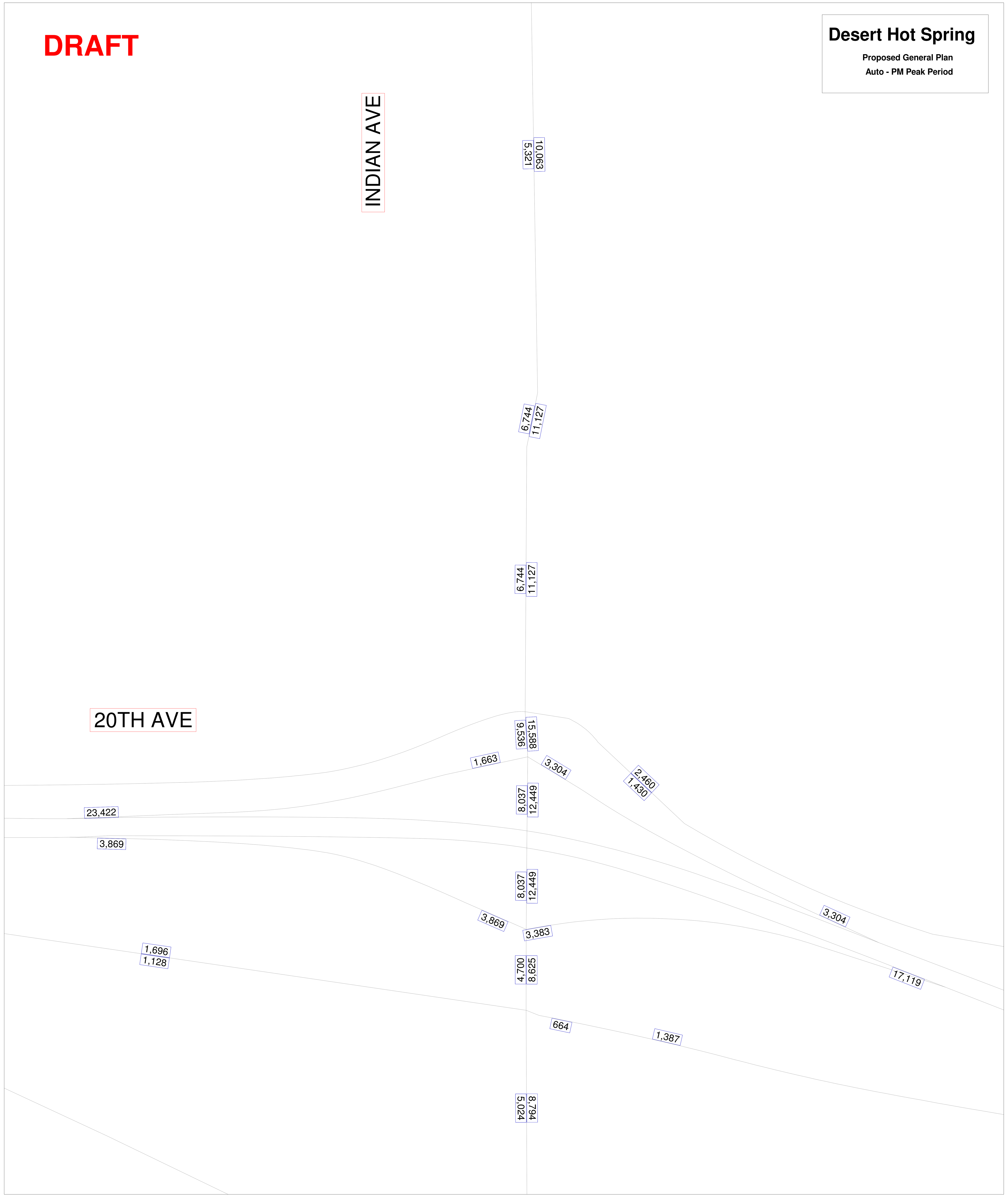
Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
42
52
21
31
22
32
15
14
24
25
LITTLE MORONGO RD
24
25
46
76
37
86
57
73
37
51
14
20TH AVE
3,635
57
64
30
15
DRAFT

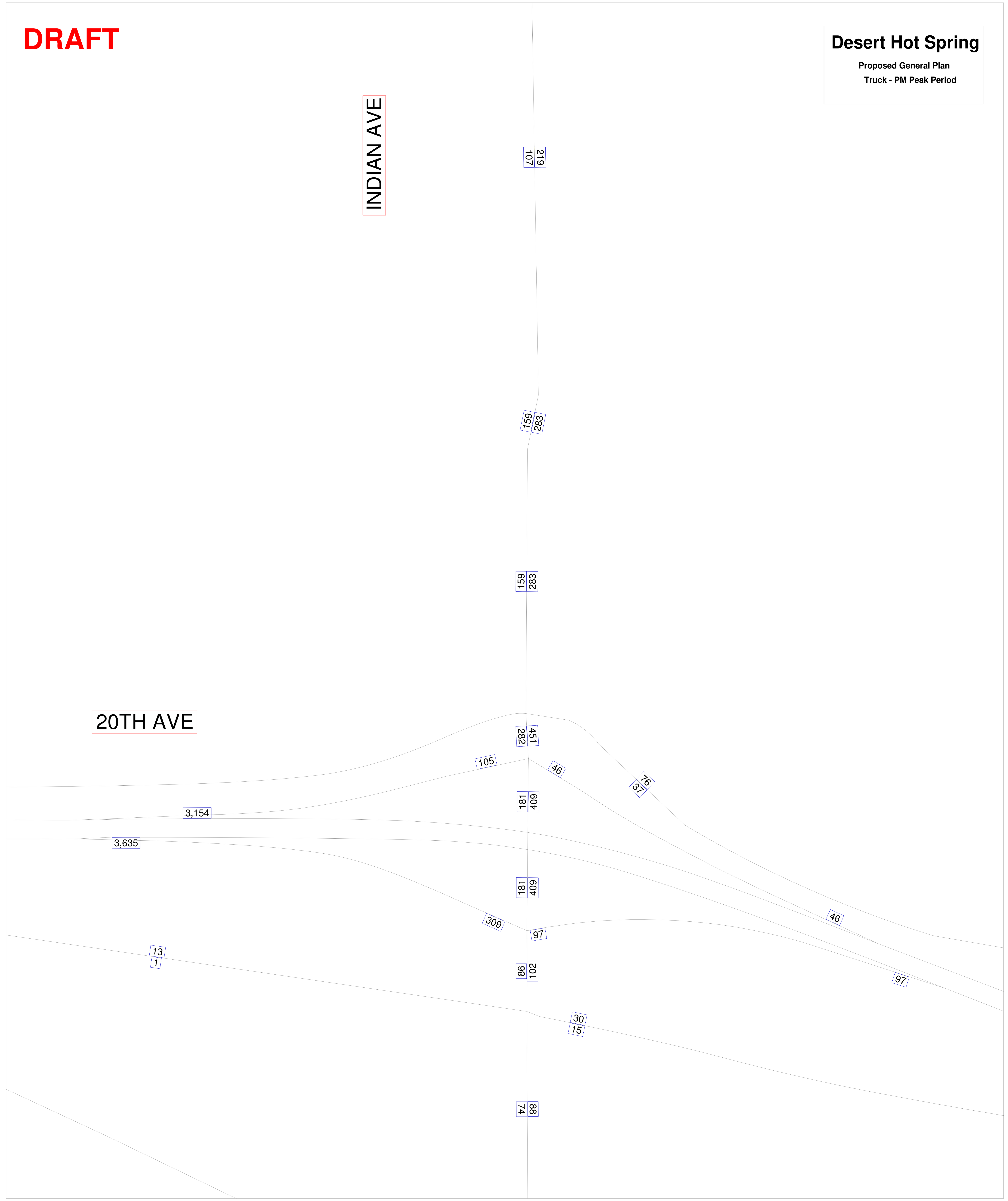

Proposed GP
Auto - PM Peak Period
13TH AVE
TWO BUNCH PALMS TRL
LITTLE MORONGO RD
INDIAN AVE
637
407
748
515
748
515
539
459
592
413
592
413
645
621
1,536
4,197
93
0
219
243
3,990
7,881
1,536
4,197
402
271
4,028
7,907
1,443
813
1,191
1,107
921
1,957
646
983
917
1,385
1,224
1,789
2,459
6,240
3,770
7,505
2,127
5,845
1,447
1,718
3,770
8,249
2,173
6,037
DRAFT

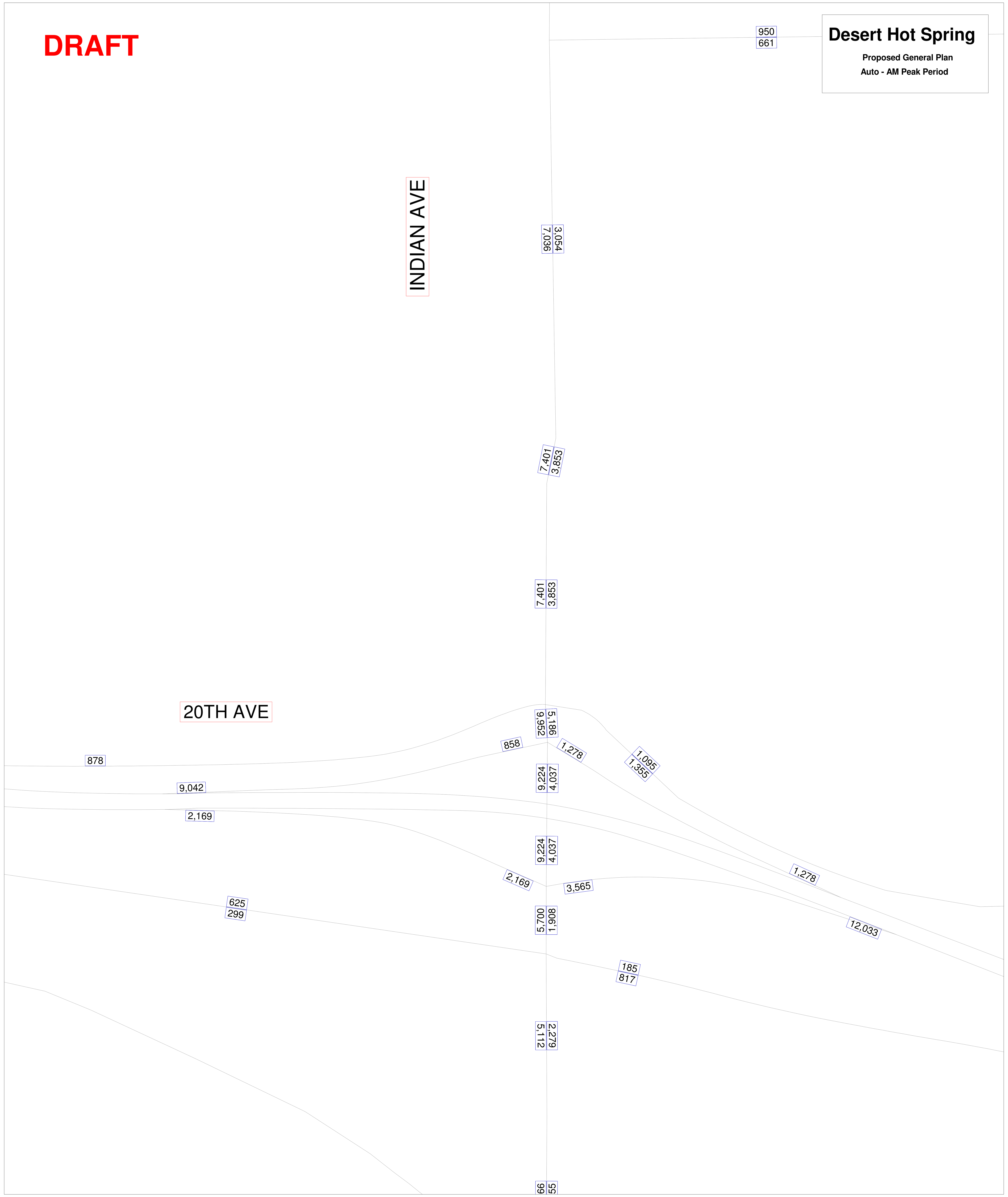

DRAFT
Proposed GP
Auto - PM Peak Period
MOUNTAIN VIEW RD
LONG CANYON RD
DILLON RD
18TH AVE
1,978
3,766
1,940
3,786
1,916
4,406
1,916
4,406
337
599
195
448
169
422
638
1,737
638
1,737
2,105
2,077
2,176
1,772
2,937
3,378
2,791
2,149
187
473
66
108
21
7
21
7


Desert Hot Spring
Proposed General Plan
(Autos - Daily)
22,131
21,680
22,131
21,680
22,131
21,680
62
21,746
22,182
0
13,369
13,632
13,369
384
247
13,298
13,171
INDIAN AVE
13,251
13,122
8,139
8,337
8,377
8,551
WORSLEY RD
DRAFT

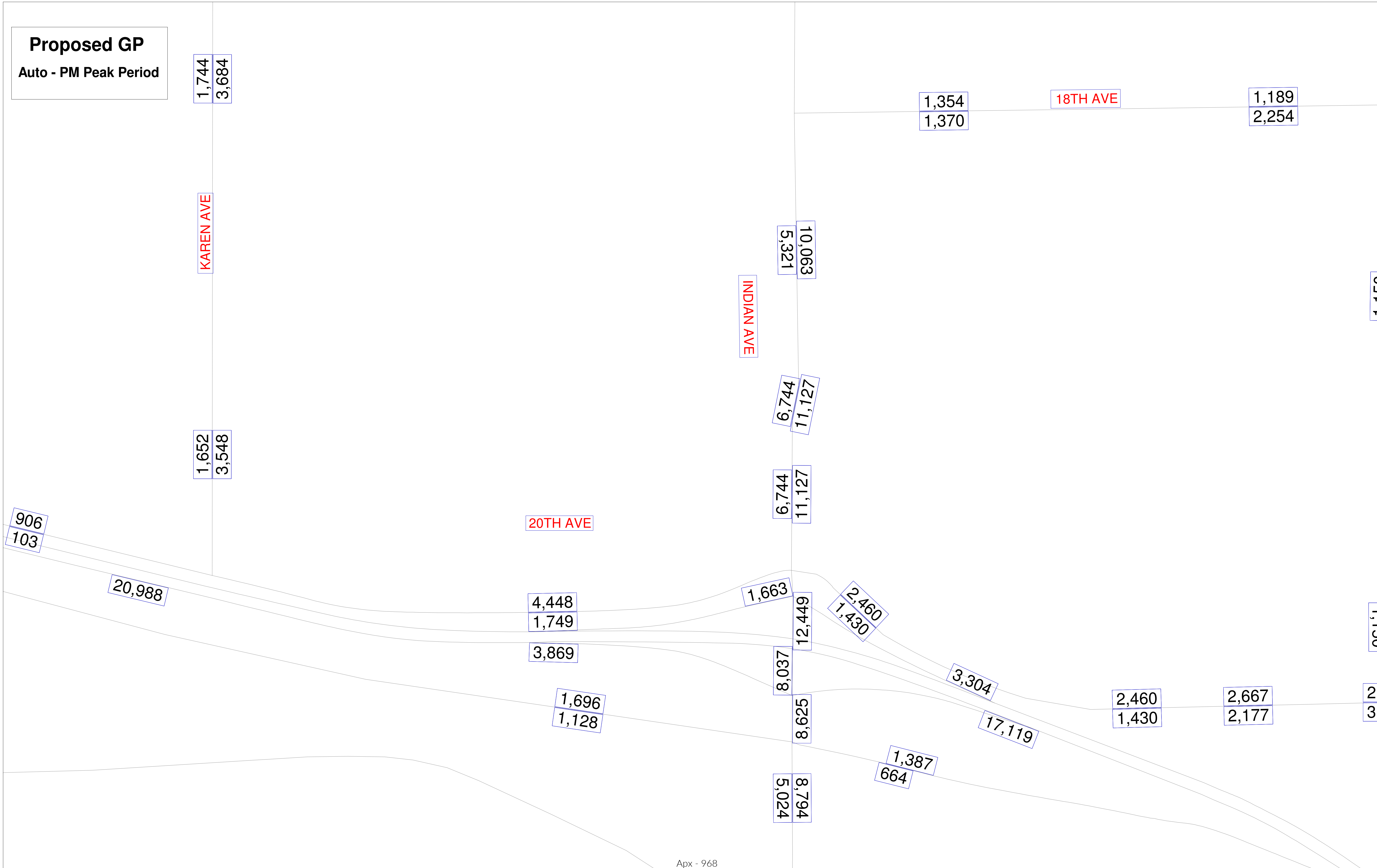

Desert Hot Spring
Proposed General Plan
(Trucks - Daily)
1,661
1,683
1,661
1,683
1,661
1,683
62
1,683
1,661
791
469
9
9
786
464
INDIAN AVE
784
463
438
301
1,214
870
WORSLEY RD
DRAFT


DRAFT
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
INDIAN AVE
20TH AVE
10,063
5,321
6,744
11,127
6,744
11,127
15,588
9,536
1,663
3,304
2,460
1,430
8,037
12,449
23,422
3,869
8,037
12,449
3,869
3,383
3,304
1,696
1,128
4,700
8,625
17,119
664
1,387
5,024
8,794

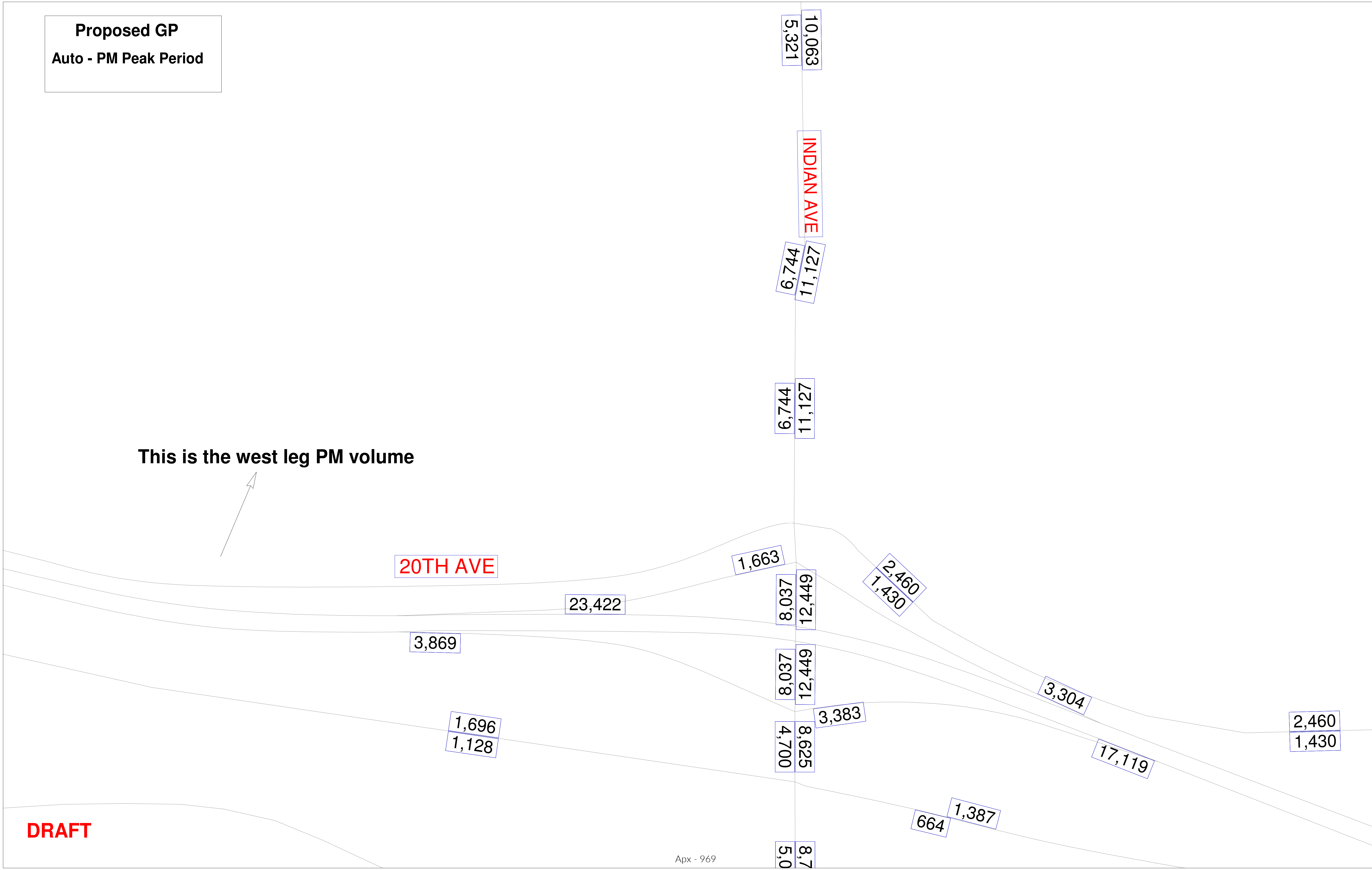

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
INDIAN AVE
20TH AVE
219
107
159
283
159
283
451
282
105
46
76
37
181
409
3,154
3,635
181
409
309
97
46
13
1
86
102
97
30
15
74
88

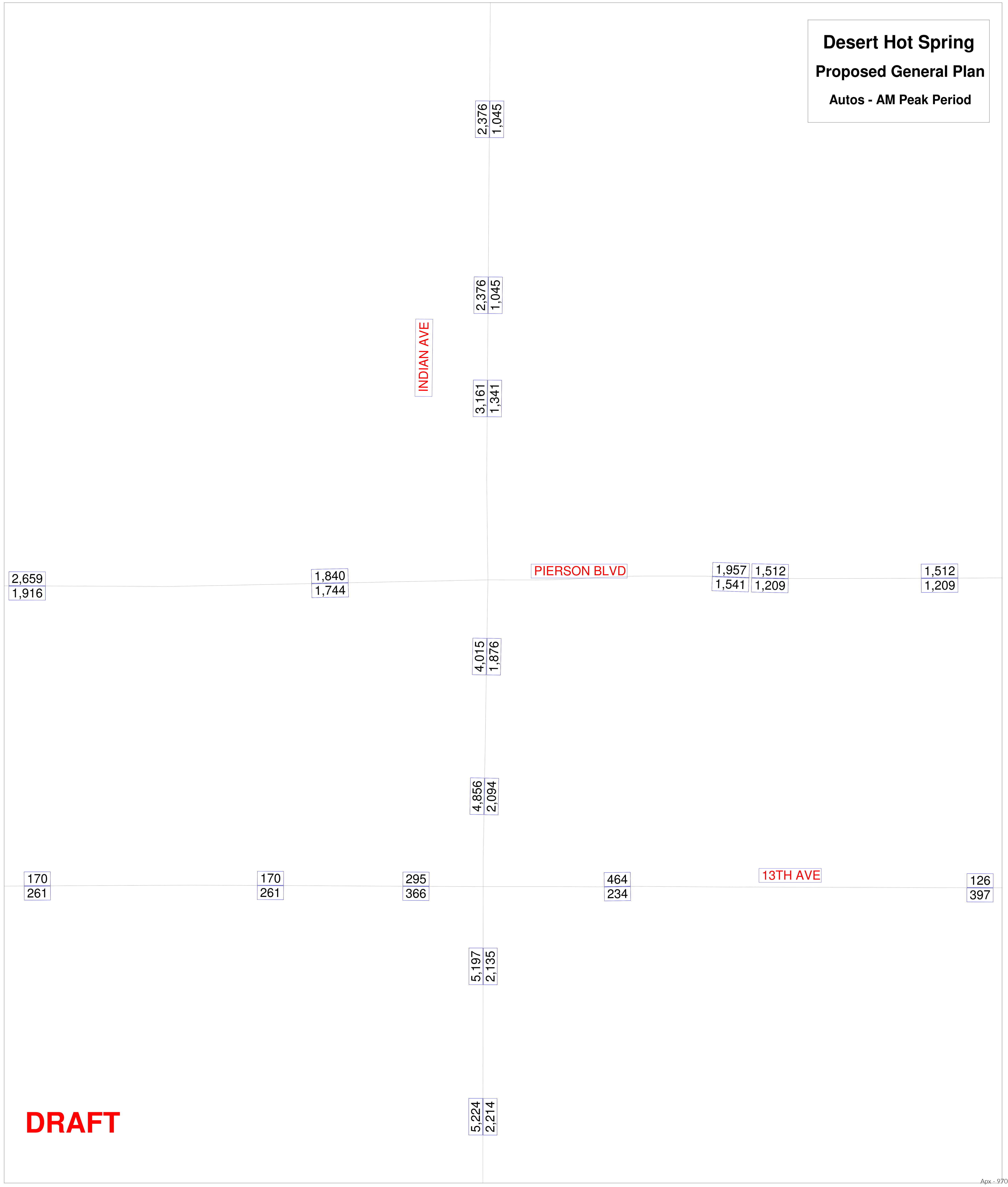

DRAFT
Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
INDIAN AVE
20TH AVE
950
661
7,036
3,054
7,401
3,853
7,401
3,853
9,952
5,186
858
1,278
1,095
1,355
878
9,042
9,224
4,037
2,169
9,224
4,037
1,278
2,169
3,565
625
299
5,700
1,908
12,033
185
817
5,112
2,279
66
55

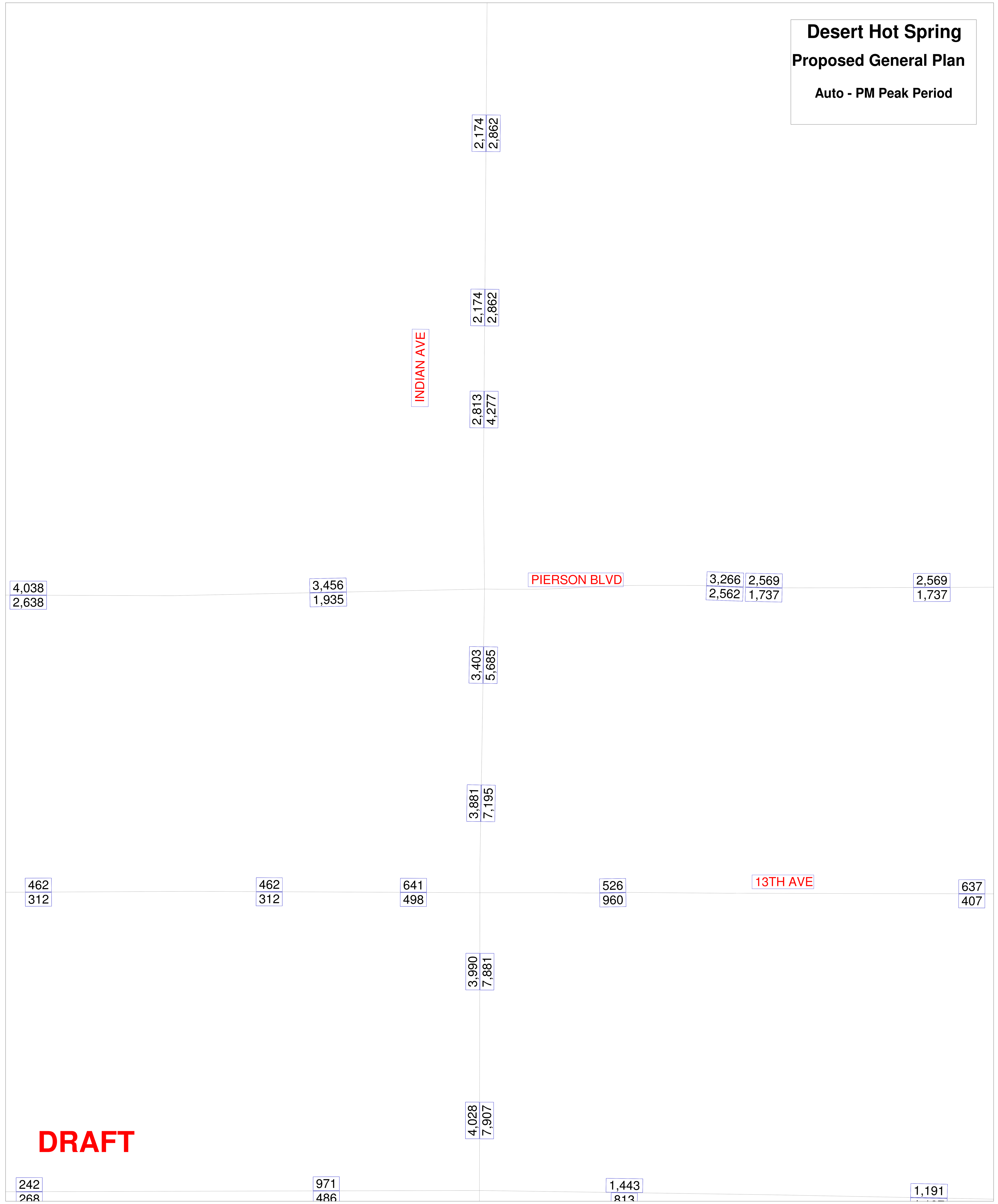

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
INDIAN AVE
20TH AVE
10
15
99
165
101
191
101
191
169
265
71
63
44
36
50
35
2,138
102
206
156
102
206
156
51
63
1
2
52
51
2,067
10
6
45
46
14
15

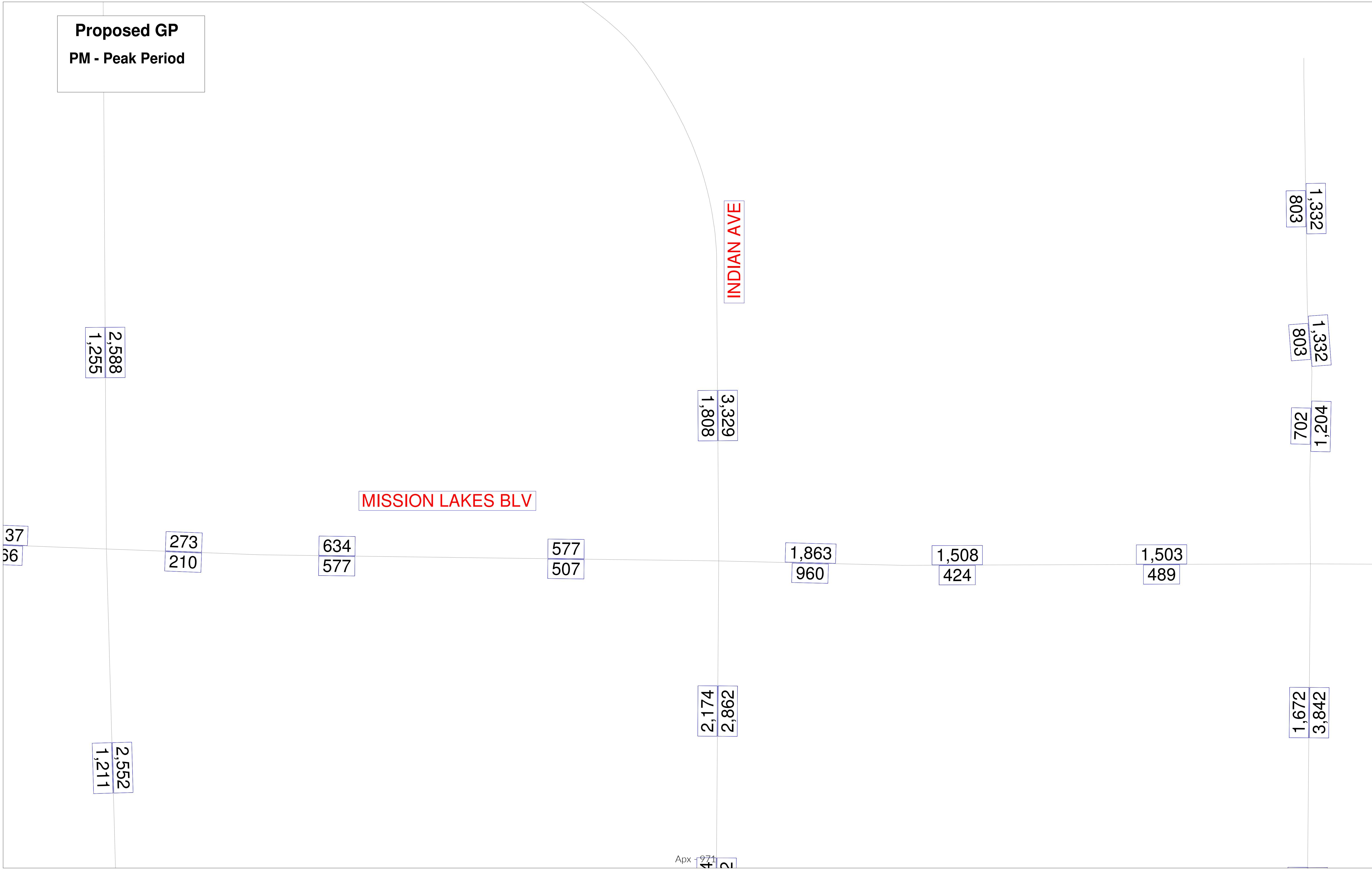


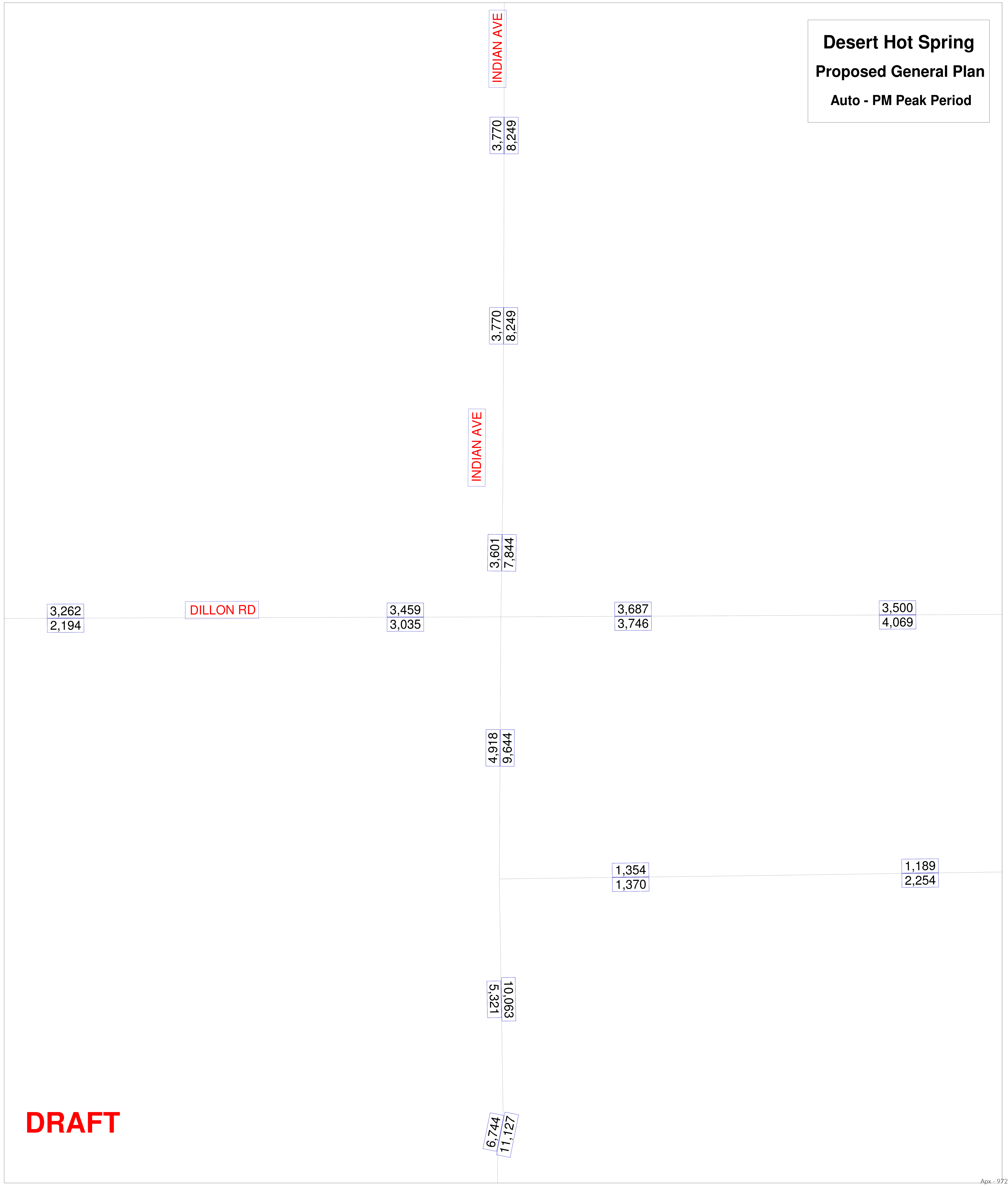
Proposed GP
Auto - PM Peak Period
KAREN AVE
INDIAN AVE
18TH AVE
20TH AVE
1,744
3,684
1,652
3,548
1,354
1,370
1,189
2,254
5,321
10,063
1,150
6,744
11,127
6,744
11,127
906
103
20,988
4,448
1,749
3,869
1,663
12,449
2,460
1,430
8,037
3,304
1,696
1,128
8,625
17,119
2,460
1,430
2,667
2,177
1,150
1,387
664
5,024
8,794

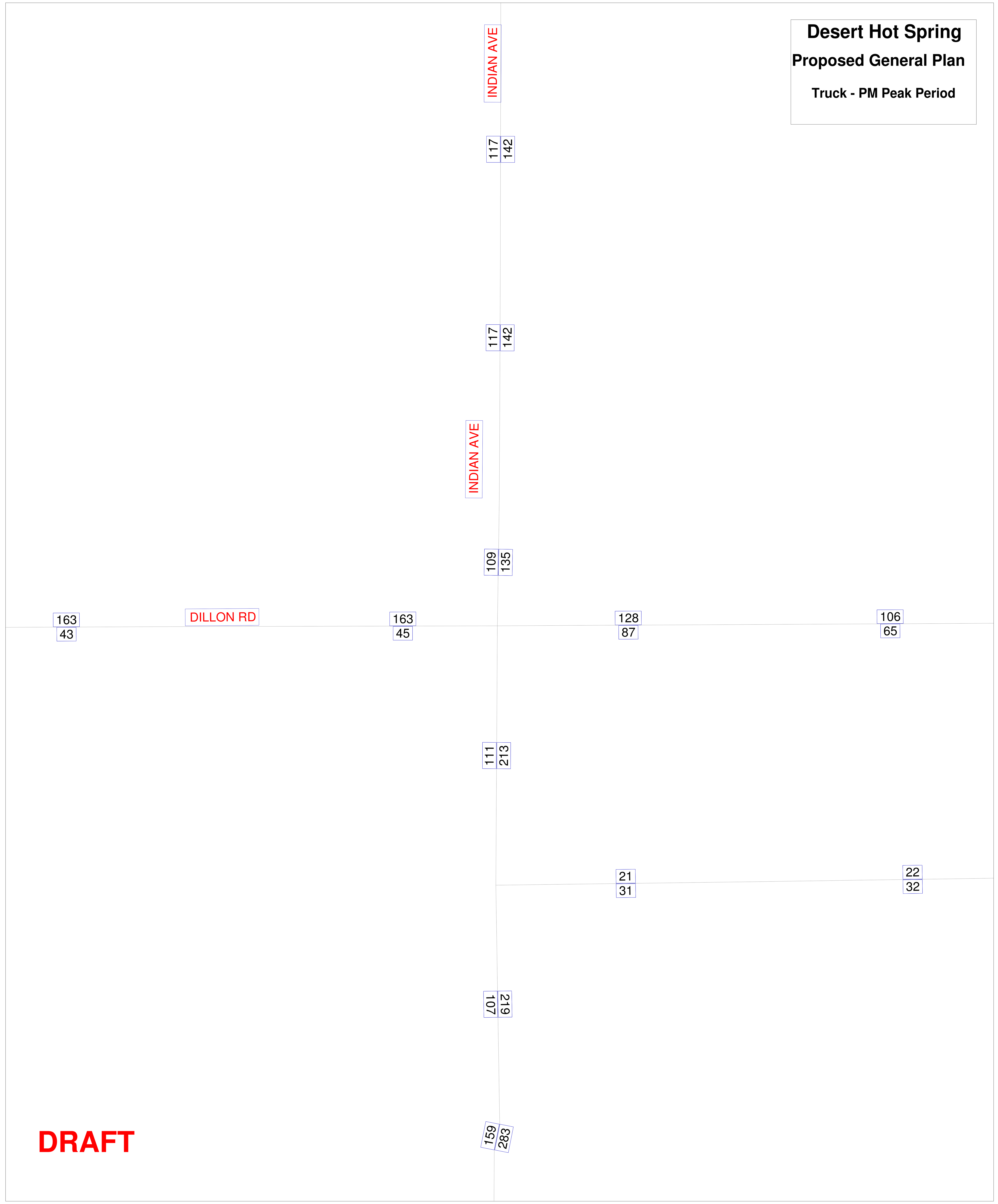

Proposed GP
Auto - PM Peak Period
10,063
5,321
INDIAN AVE
6,744
11,127
6,744
11,127
This is the west leg PM volume
20TH AVE
1,663
23,422
8,037
12,449
2,460
1,430
3,869
8,037
12,449
3,383
3,304
1,696
1,128
4,700
8,625
17,119
2,460
1,430
664
1,387
DRAFT

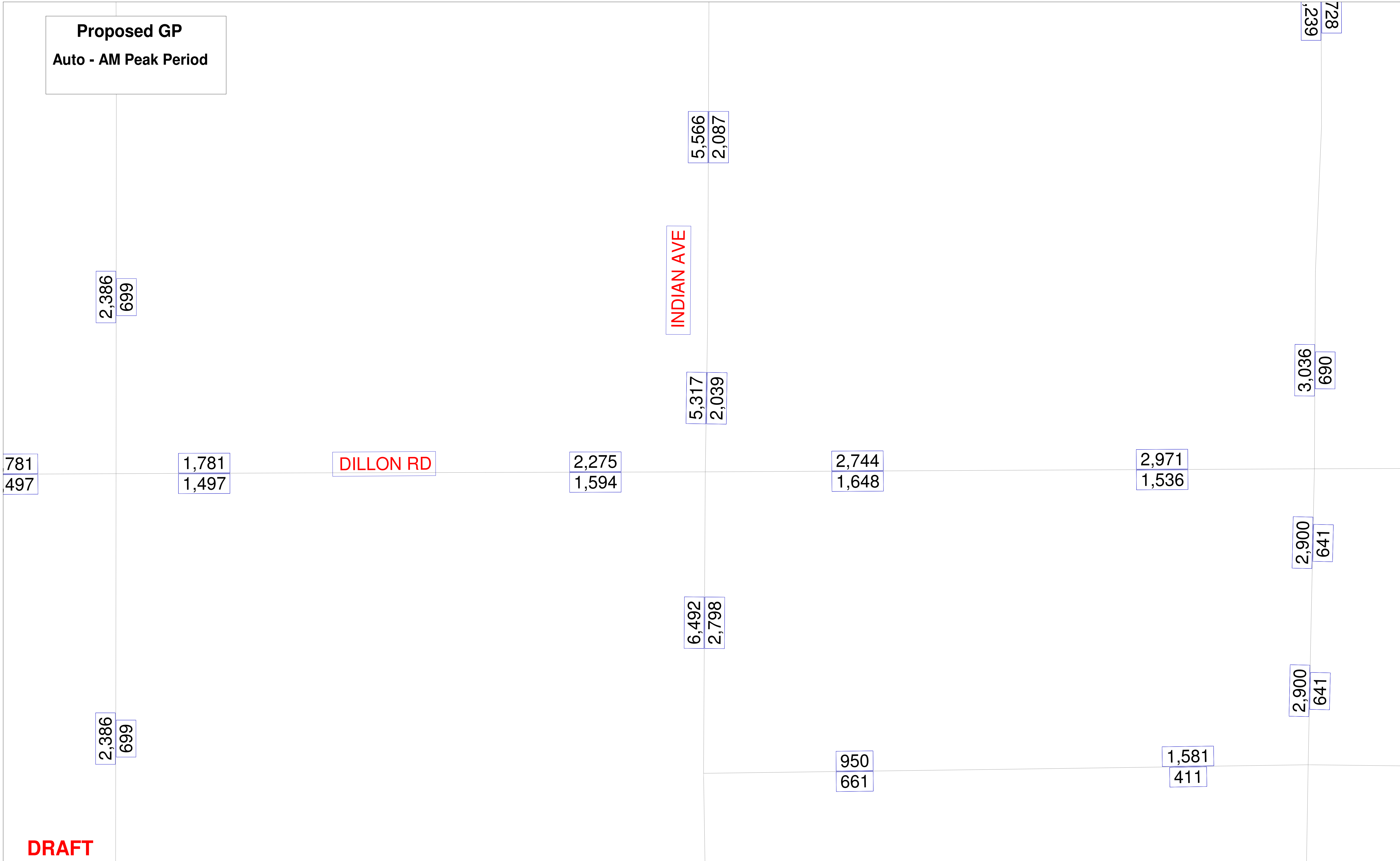

Desert Hot Spring
Proposed General Plan
Autos - AM Peak Period
INDIAN AVE
PIERSON BLVD
13TH AVE
2,376
1,045
2,376
1,045
3,161
1,341
2,659
1,916
1,840
1,744
1,957
1,541
1,512
1,209
1,512
1,209
4,015
1,876
4,856
2,094
170
261
170
261
295
366
464
234
126
397
5,197
2,135
5,224
2,214
DRAFT

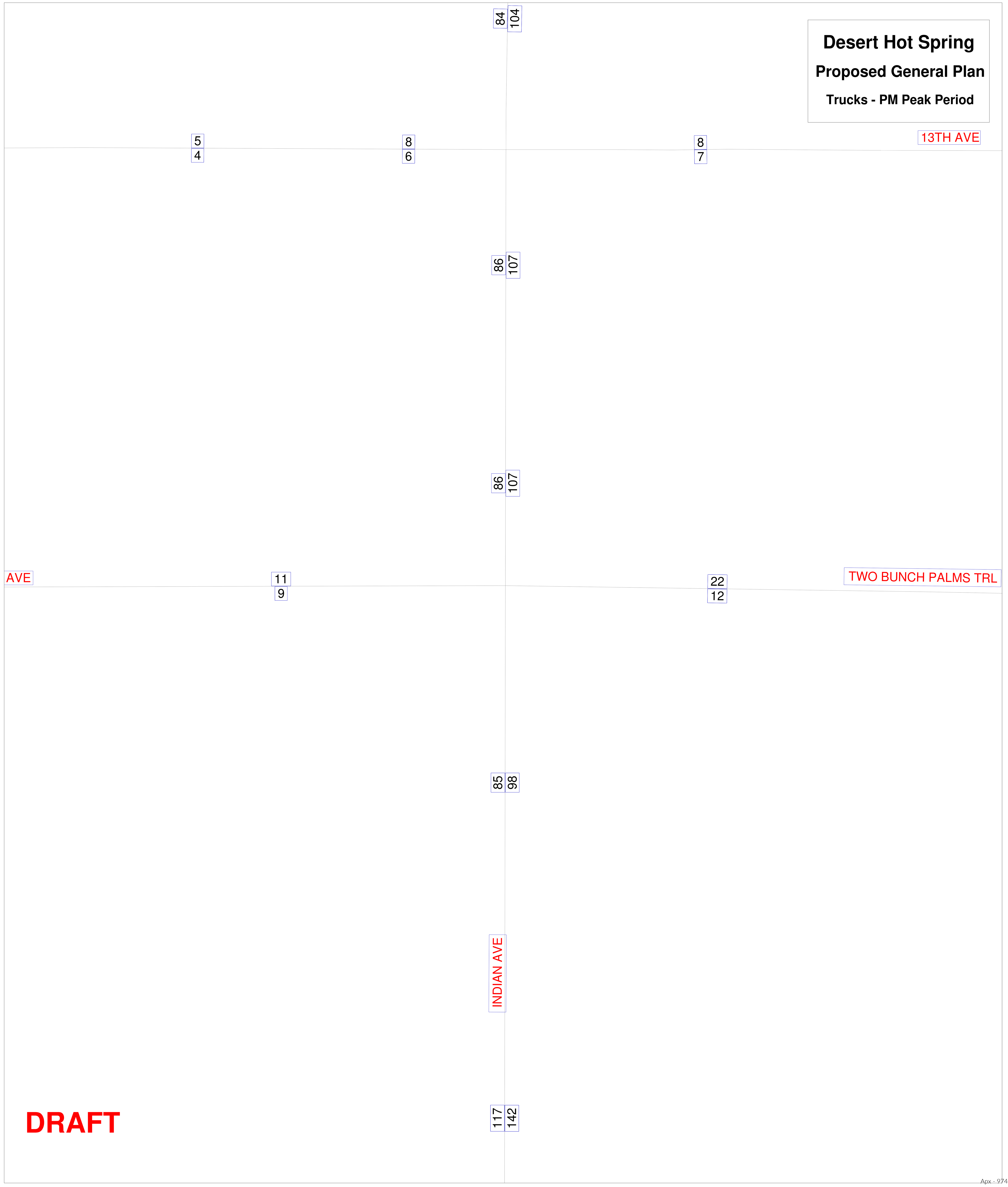

Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
INDIAN AVE
PIERSON BLVD
13TH AVE
2,174
2,862
2,174
2,862
2,813
4,277
4,038
2,638
3,456
1,935
3,266
2,562
2,569
1,737
2,569
1,737
3,403
5,685
3,881
7,195
462
312
462
312
641
498
526
960
637
407
3,990
7,881
4,028
7,907
242
268
971
486
1,443
813
1,191
DRAFT

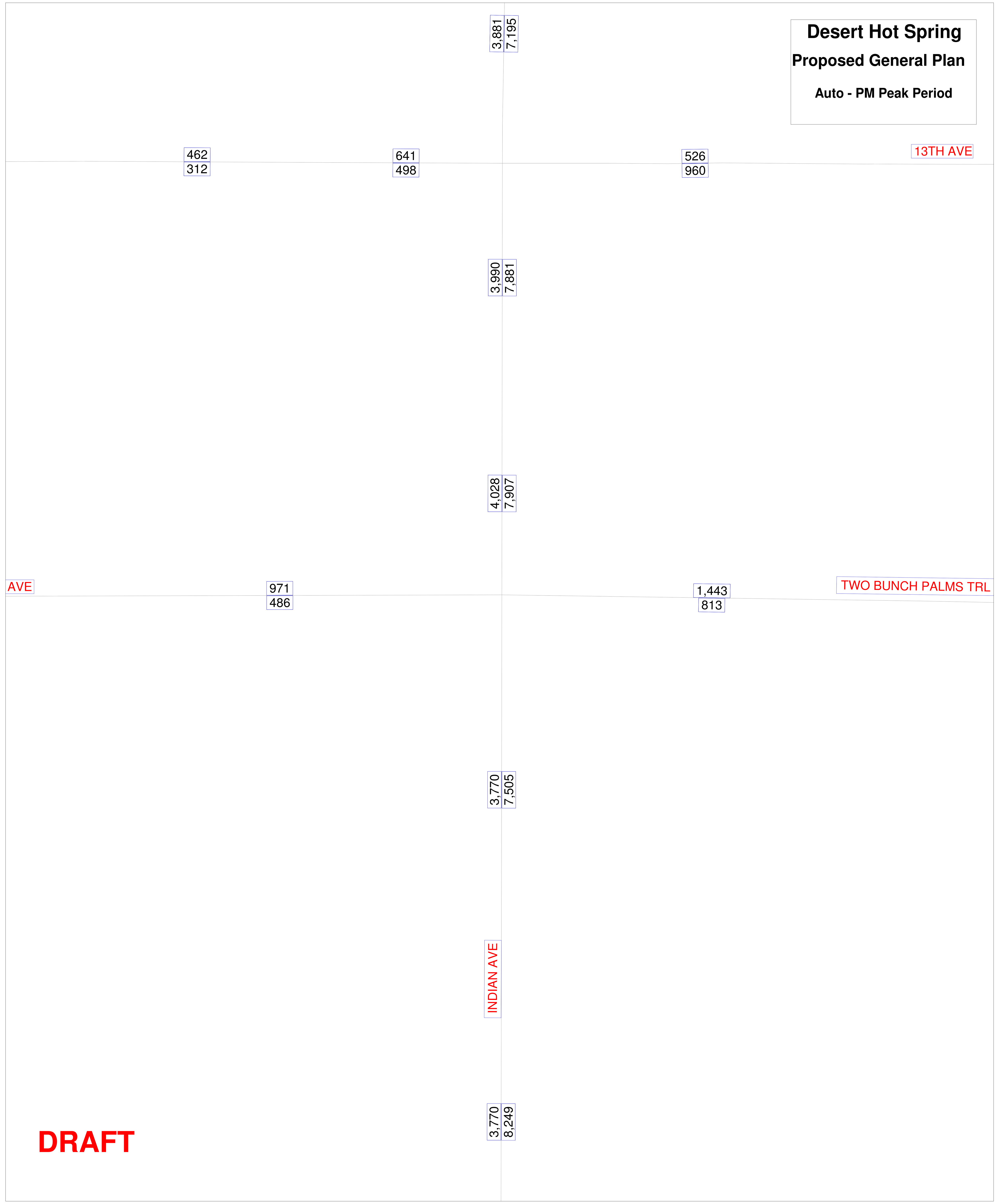

Proposed GP
PM - Peak Period
INDIAN AVE
MISSION LAKES BLV
1,255
2,588
1,808
3,329
803
1,332
803
1,332
702
1,204
37
66
273
210
634
577
577
507
1,863
960
1,508
424
1,503
489
1,211
2,552
2,174
2,862
1,672
3,842


Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
INDIAN AVE
3,770
8,249
3,770
8,249
INDIAN AVE
3,601
7,844
3,262
2,194
DILLON RD
3,459
3,035
3,687
3,746
3,500
4,069
4,918
9,644
1,354
1,370
1,189
2,254
5,321
10,063
6,744
11,127
DRAFT

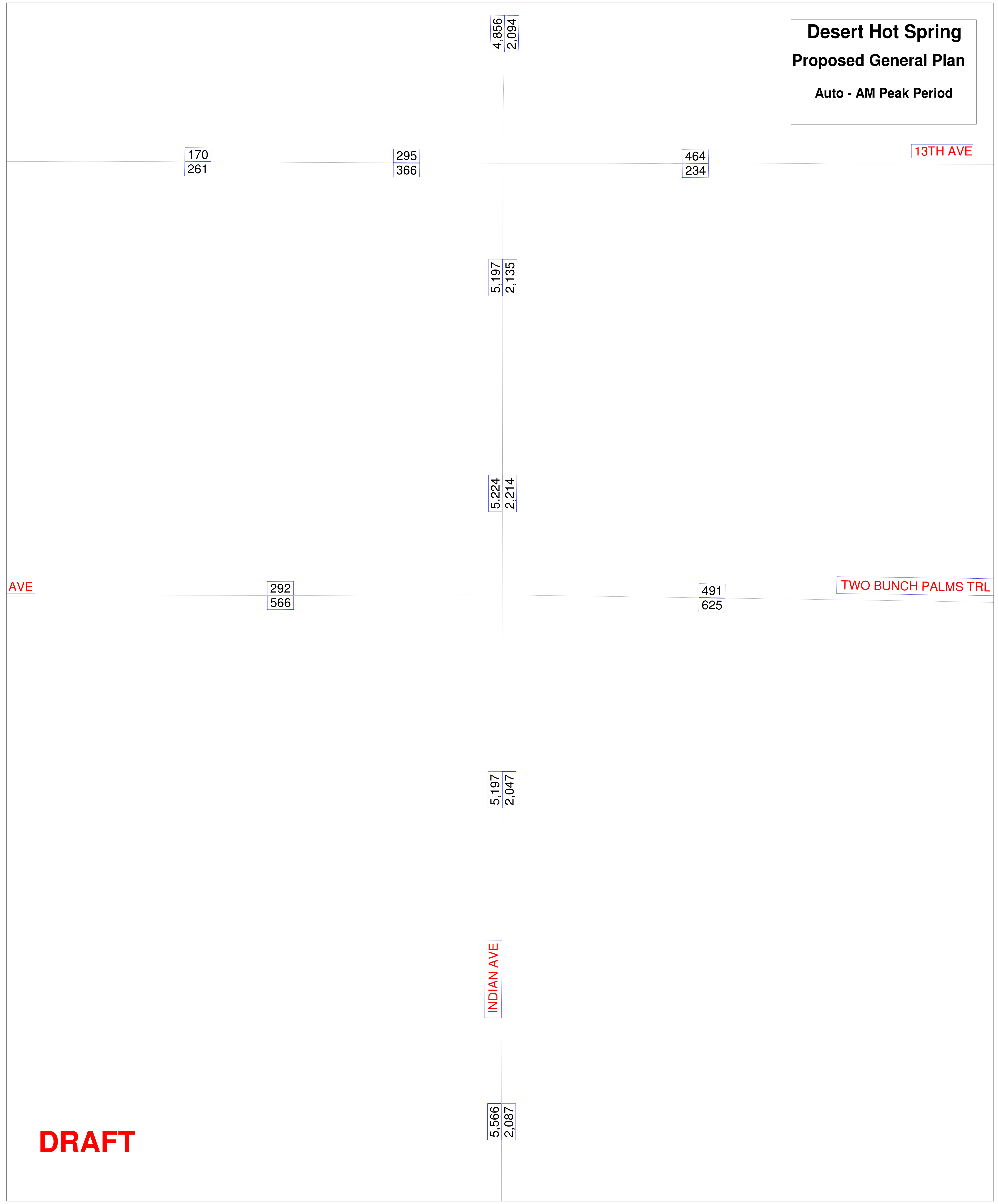

Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
INDIAN AVE
117
142
117
142
INDIAN AVE
109
135
163
43
DILLON RD
163
45
128
87
106
65
111
213
21
31
22
32
107
219
159
283
DRAFT

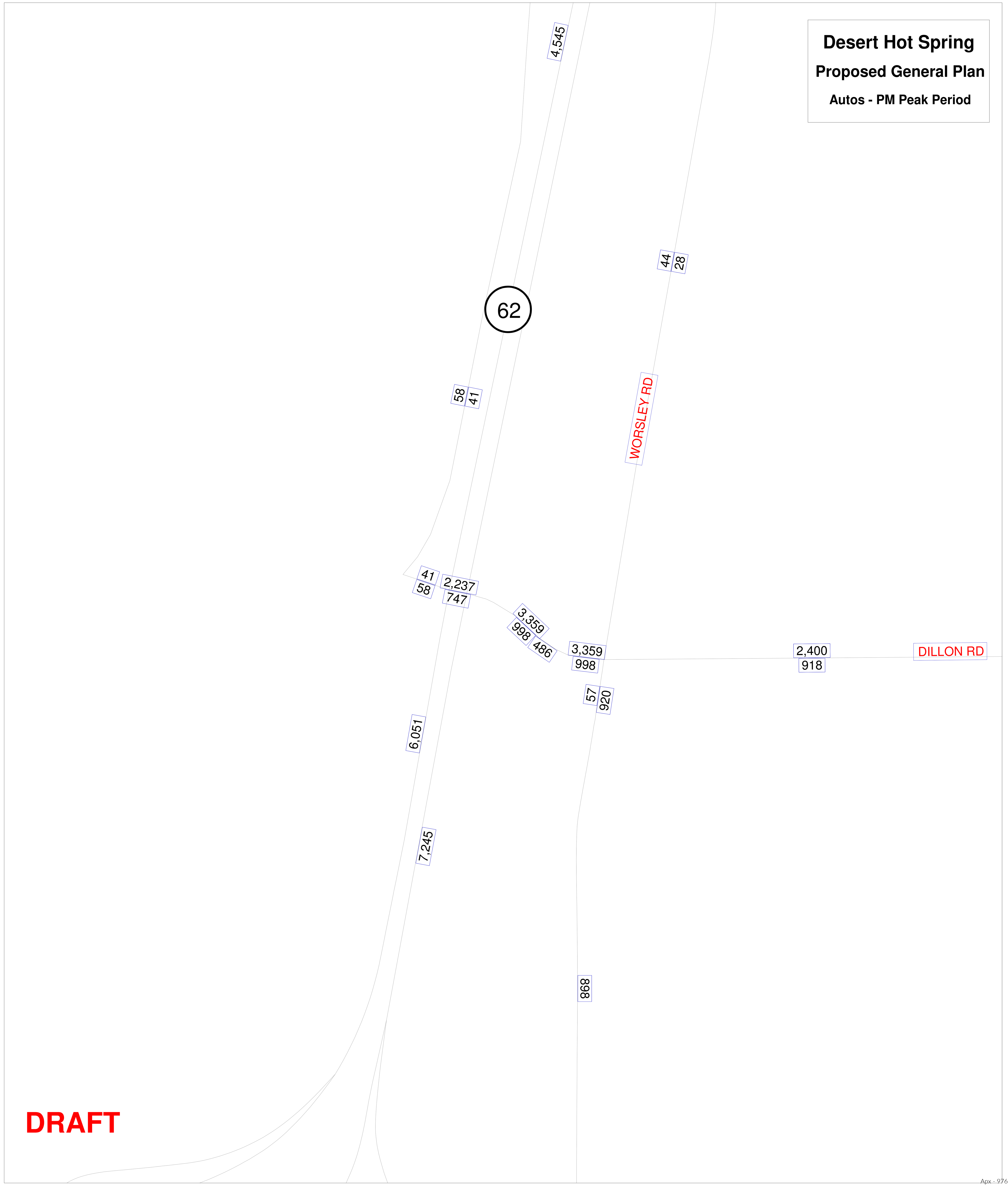

Proposed GP
Auto - AM Peak Period
INDIAN AVE
DILLON RD
5,566
2,087
2,386
699
3,036
690
5,317
2,039
1,781
1,497
2,275
1,594
2,744
1,648
2,971
1,536
2,900
641
6,492
2,798
2,900
641
2,386
699
950
661
1,581
411
DRAFT

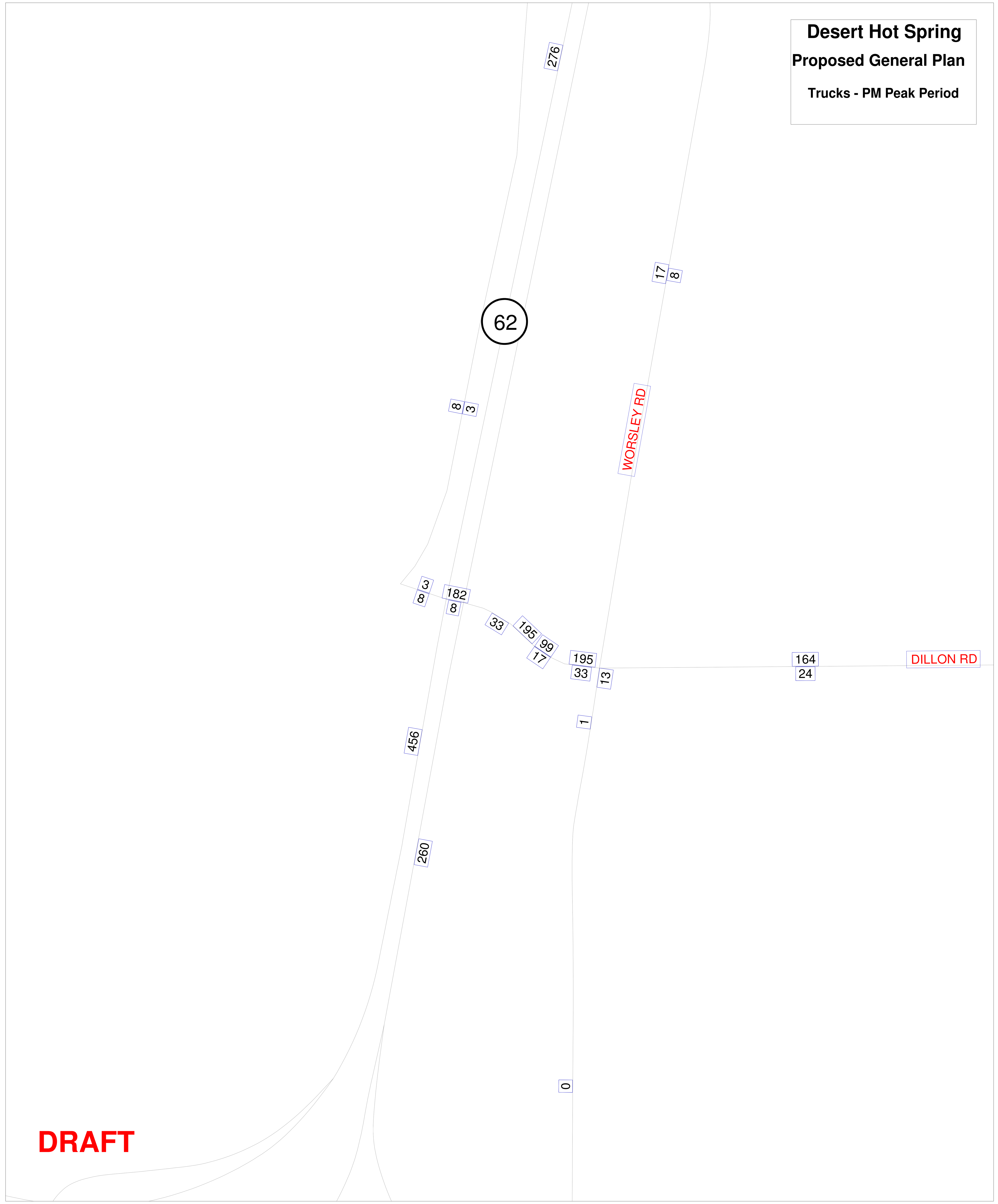

Desert Hot Spring
Proposed General Plan
Trucks - PM Peak Period
13TH AVE
TWO BUNCH PALMS TRL
AVE
INDIAN AVE
84
104
5
4
8
6
8
7
86
107
86
107
11
9
22
12
85
98
117
142
DRAFT

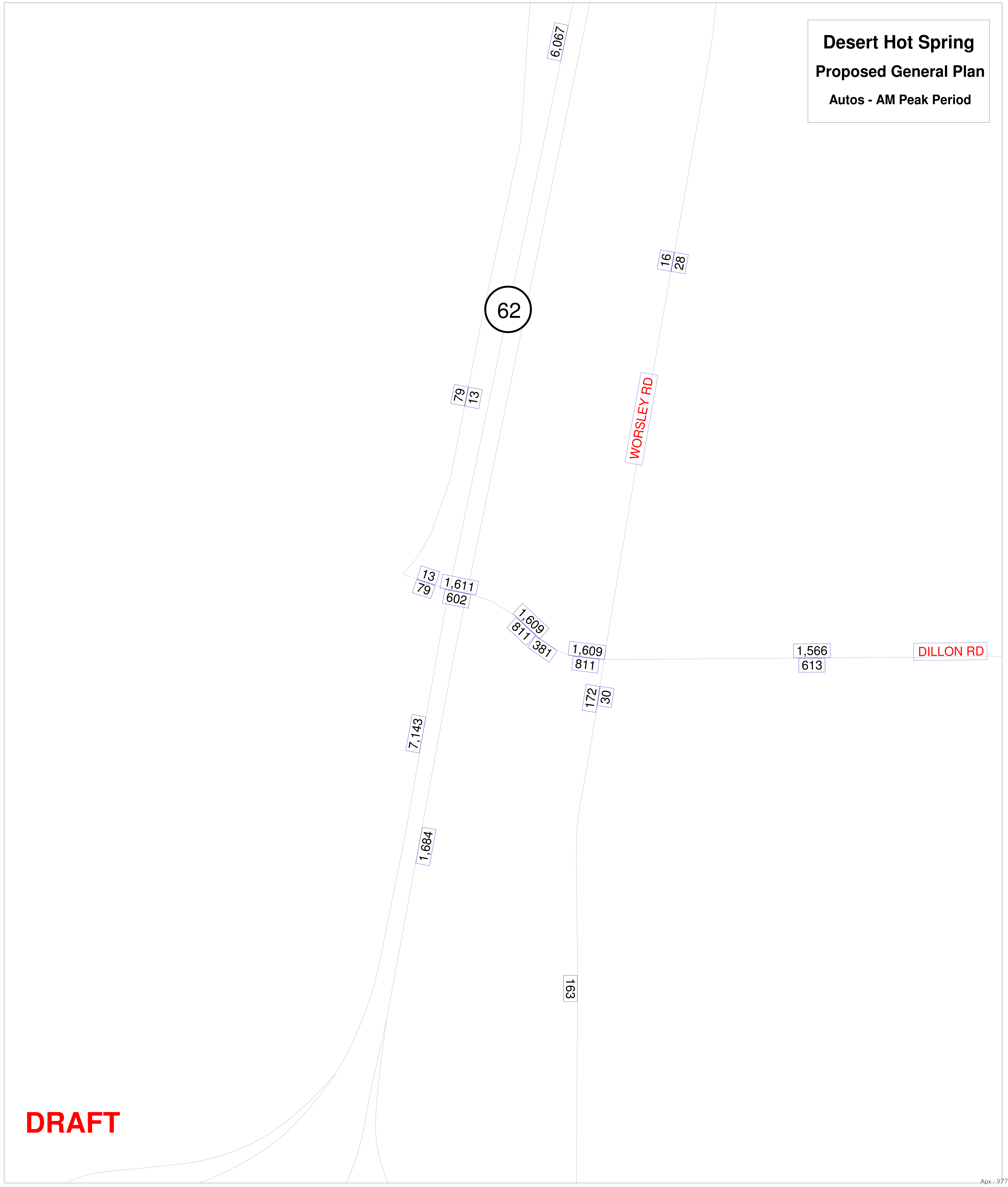

Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
13TH AVE
TWO BUNCH PALMS TRL
AVE
INDIAN AVE
3,881
7,195
462
312
641
498
526
960
3,990
7,881
4,028
7,907
971
486
1,443
813
3,770
7,505
3,770
8,249
DRAFT

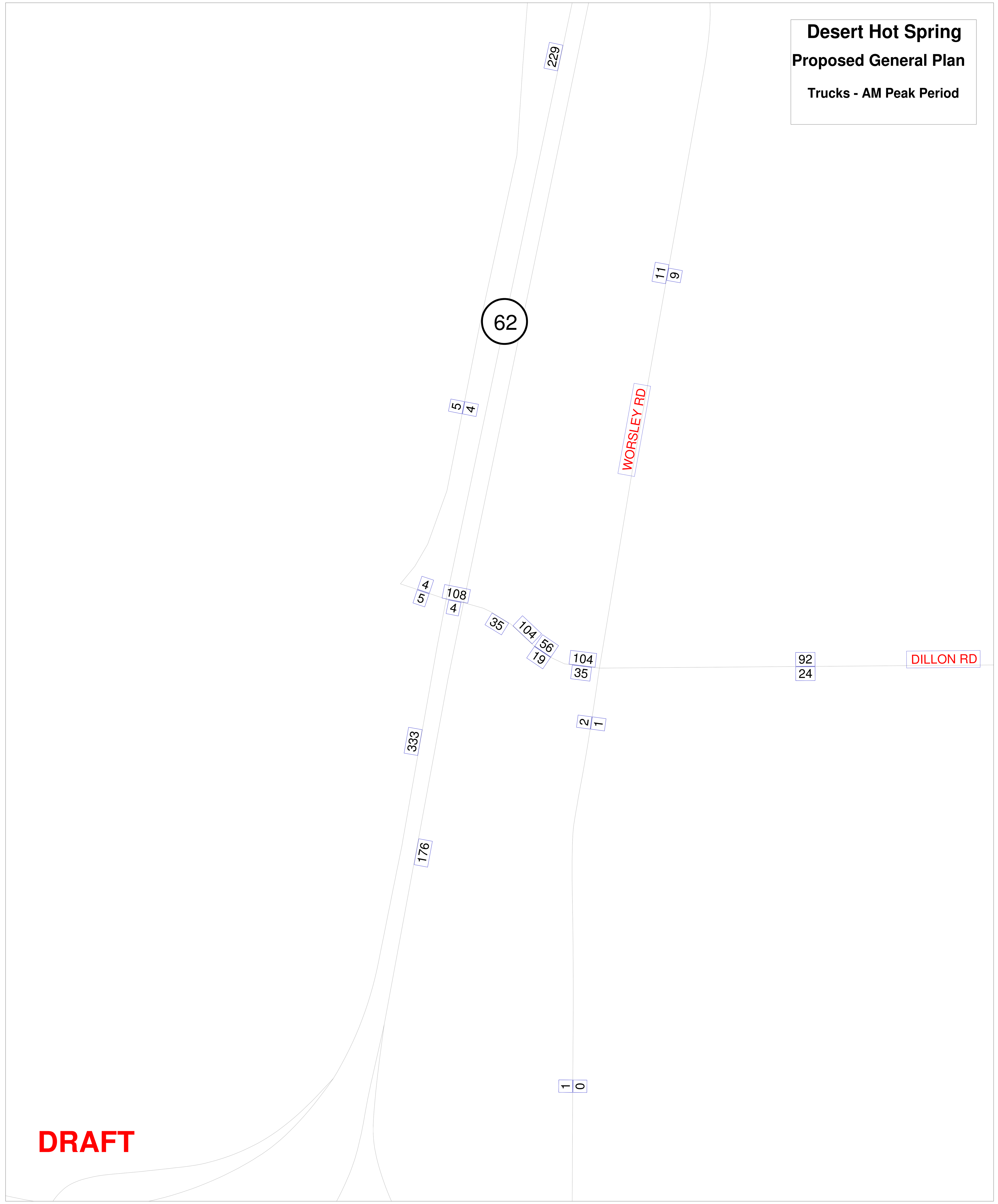

Desert Hot Spring
Proposed General Plan
Trucks - AM Peak Period
13TH AVE
TWO BUNCH PALMS TRL
AVE
INDIAN AVE
44 81
2 2
4 4
4 5
45 83
46 85
6 6
8 11
42 83
67 106
DRAFT

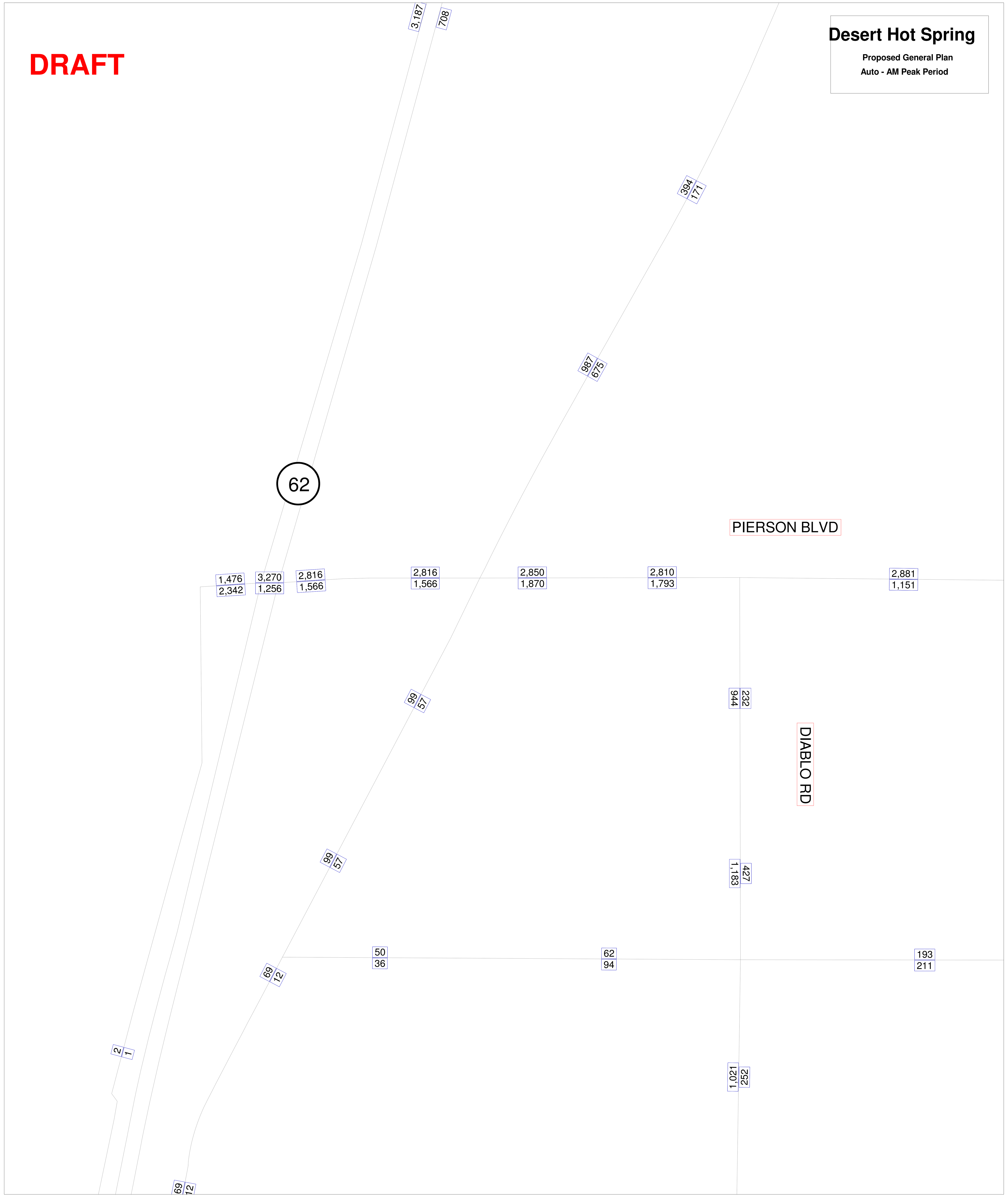

Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
13TH AVE
TWO BUNCH PALMS TRL
AVE
INDIAN AVE
4,856 2,094
170 261
295 366
464 234
5,197 2,135
5,224 2,214
292 566
491 625
5,197 2,047
5,566 2,087
DRAFT

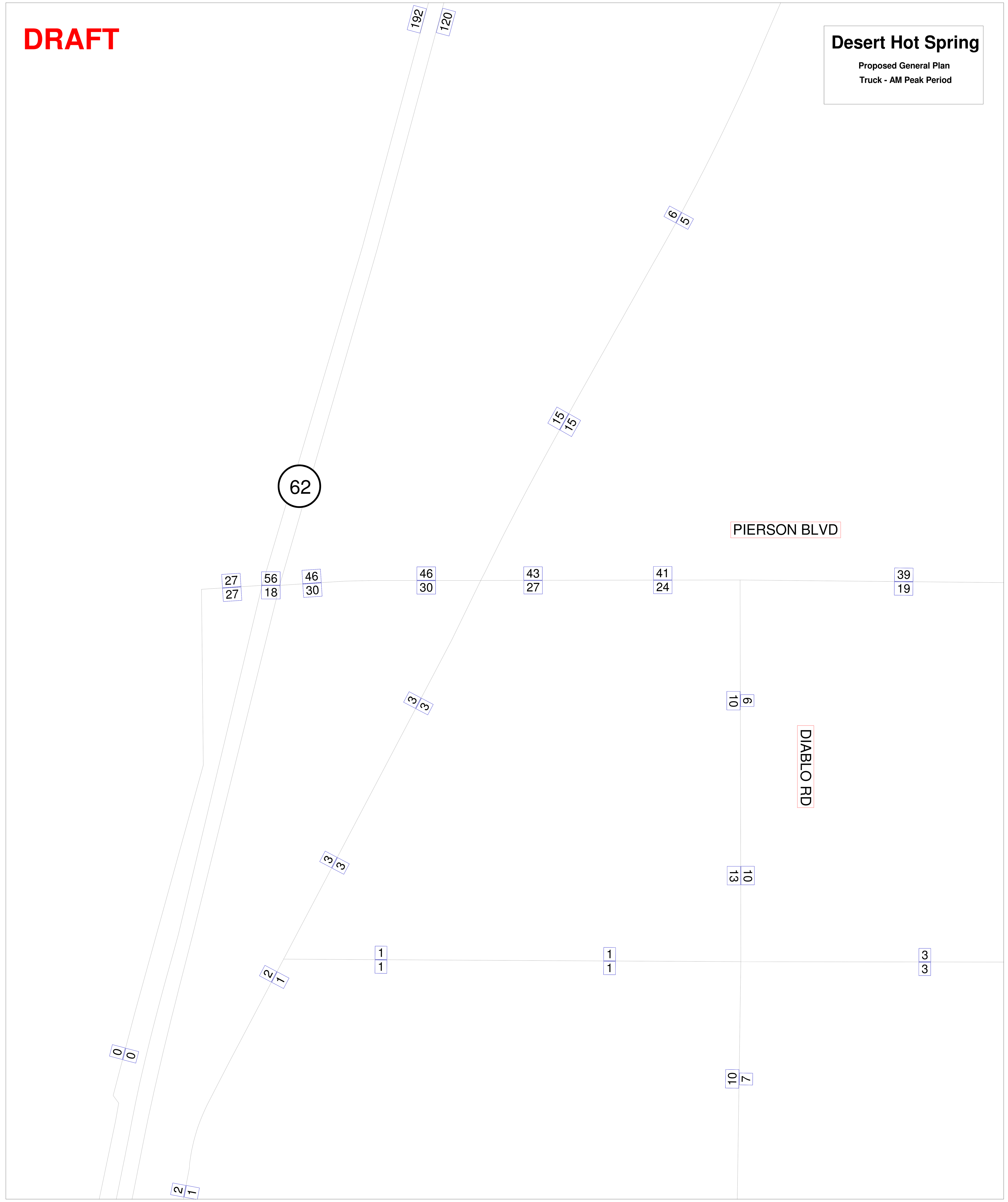

Desert Hot Spring
Proposed General Plan
Autos - PM Peak Period
62
WORSLEY RD
DILLON RD
4,545
44
28
58
41
41
58
2,237
747
3,359
998
486
3,359
998
2,400
918
57
920
6,051
7,245
868
DRAFT

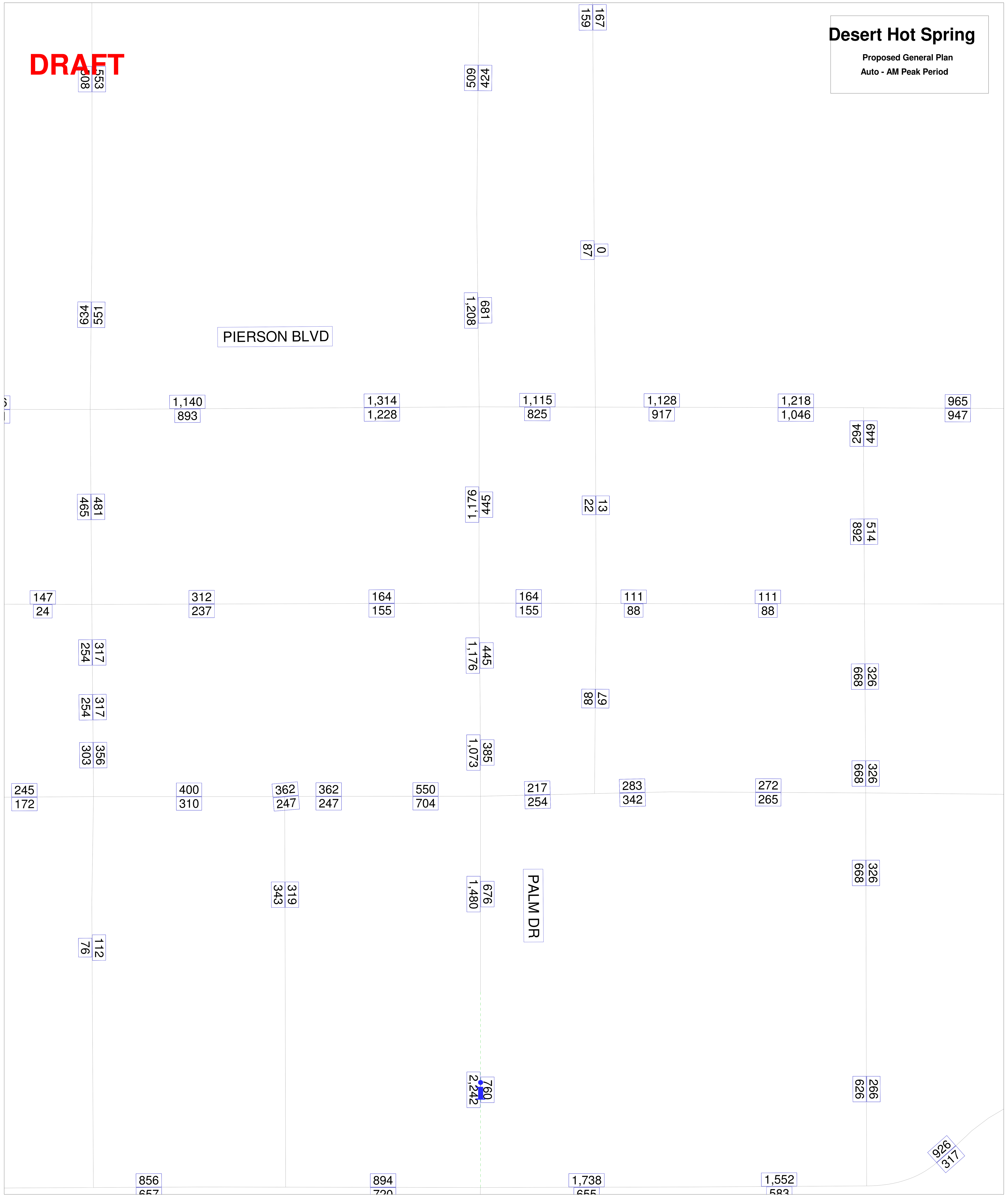
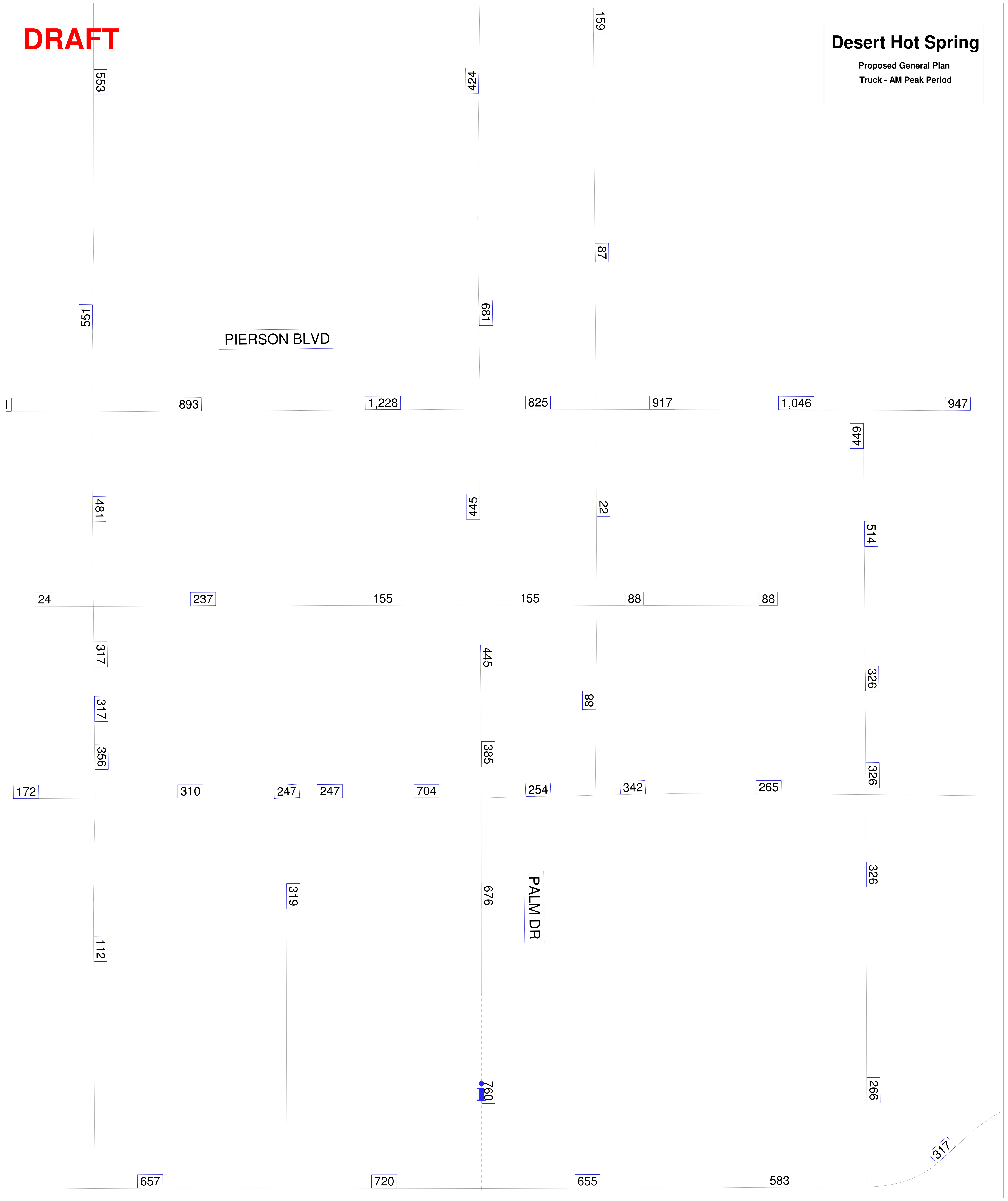

Desert Hot Spring
Proposed General Plan
Trucks - PM Peak Period
62
WORSLEY RD
DILLON RD
276
17
8
8
3
3
8
182
8
33
195
99
17
195
33
13
164
24
1
456
260
0
DRAFT

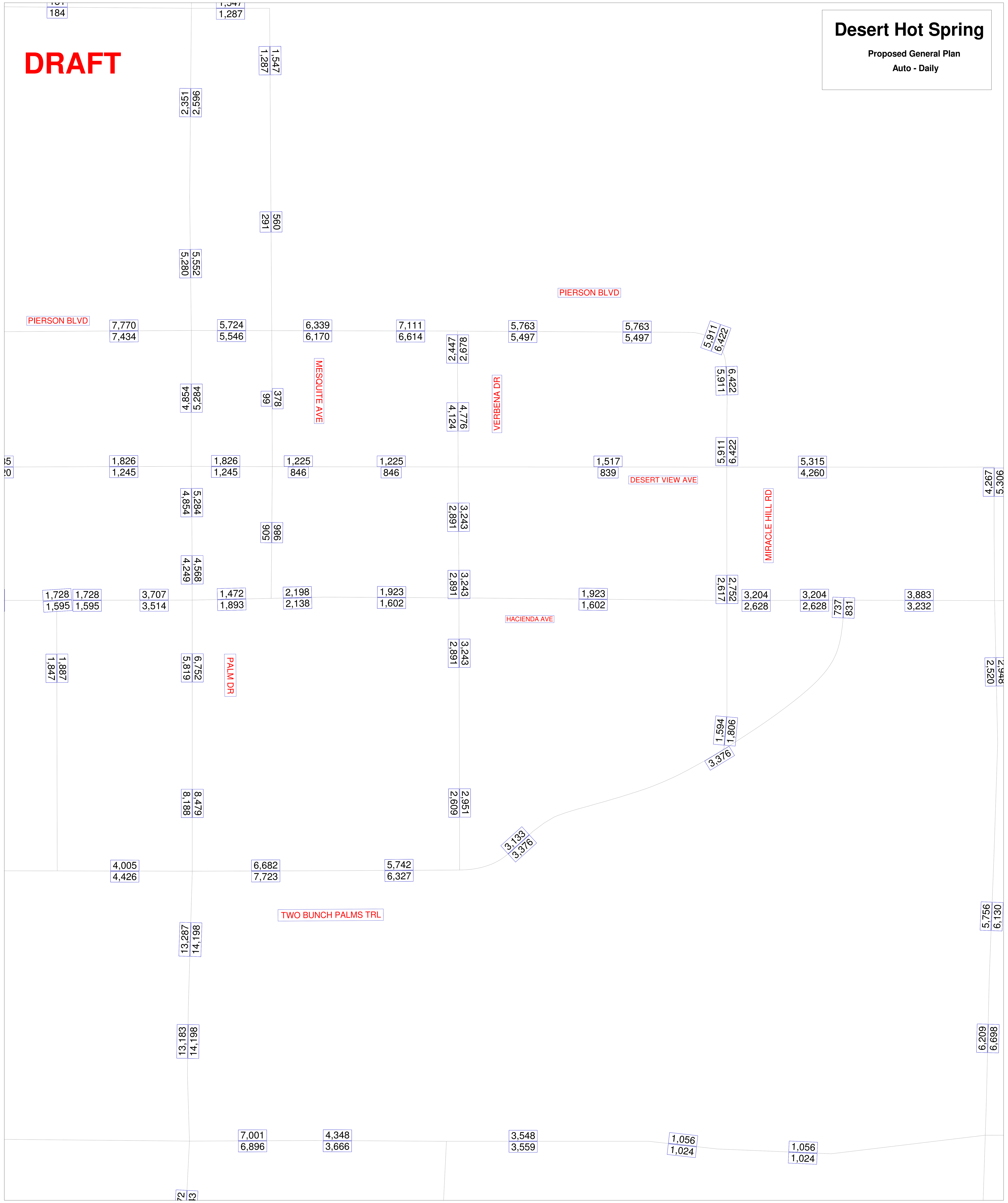

Desert Hot Spring
Proposed General Plan
Autos - AM Peak Period
6,067
16
28
62
79
13
WORSLEY RD
13
79
1,611
602
1,609
811
381
1,609
811
1,566
613
DILLON RD
172
30
7,143
1,684
163
DRAFT

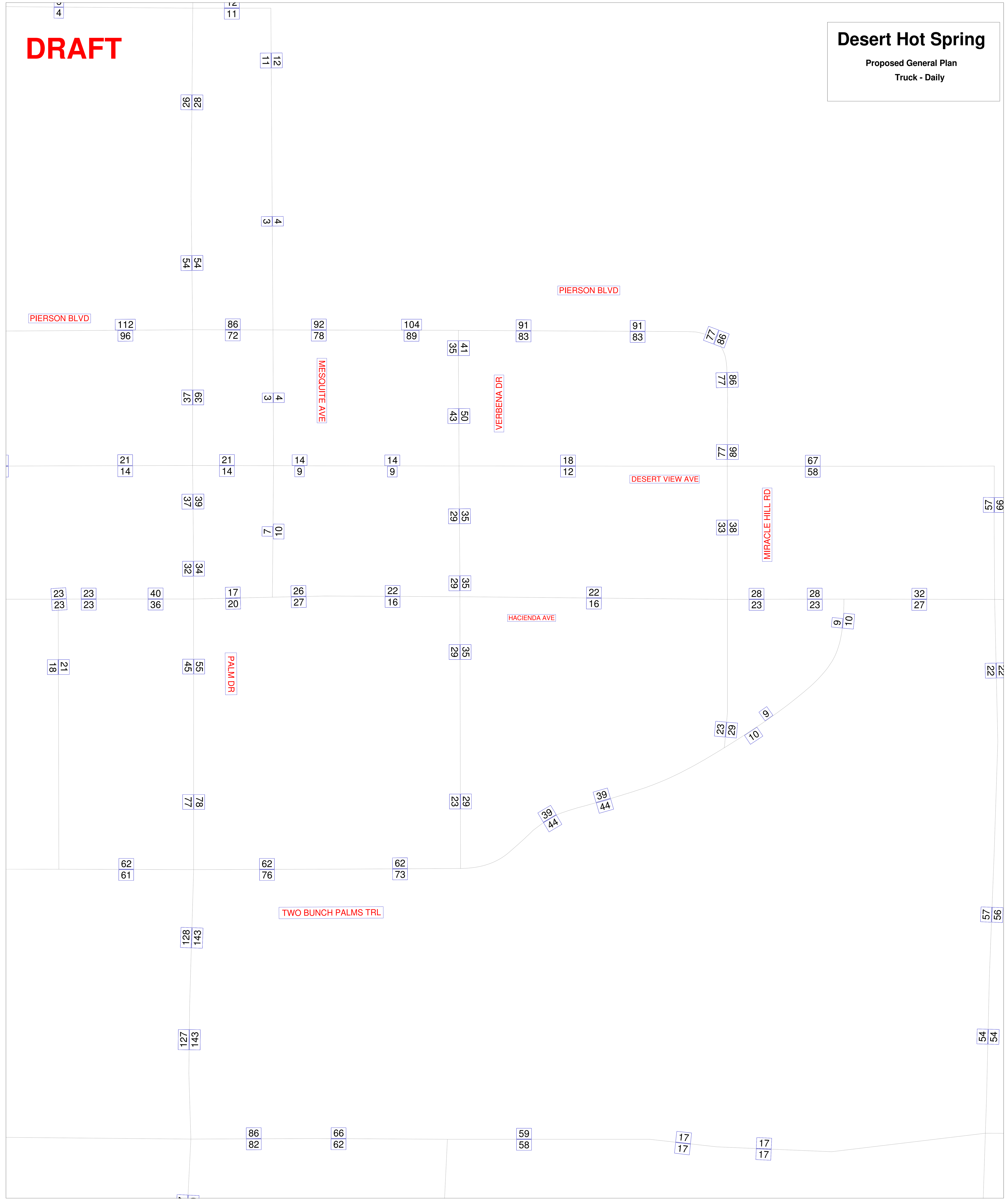

Desert Hot Spring
Proposed General Plan
Trucks - AM Peak Period
229
11
9
62
5
4
WORSLEY RD
4
5
108
4
35
104
56
19
104
35
92
24
DILLON RD
2
1
333
176
1
0
DRAFT


DRAFT
Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
62
PIERSON BLVD
DIABLO RD
3,187
708
394
171
987
675
1,476
2,342
3,270
1,256
2,816
1,566
2,816
1,566
2,850
1,870
2,810
1,793
2,881
1,151
99
57
944
232
99
57
1,183
427
50
36
62
94
193
211
69
12
2
1
1,021
252
69
12


DRAFT
Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
62
PIERSON BLVD
DIABLO RD
192
120
6
5
15
15
27
27
56
18
46
30
46
30
43
27
41
24
39
19
3
3
10
6
3
3
13
10
1
1
1
1
3
3
2
1
0
0
10
7
2
1

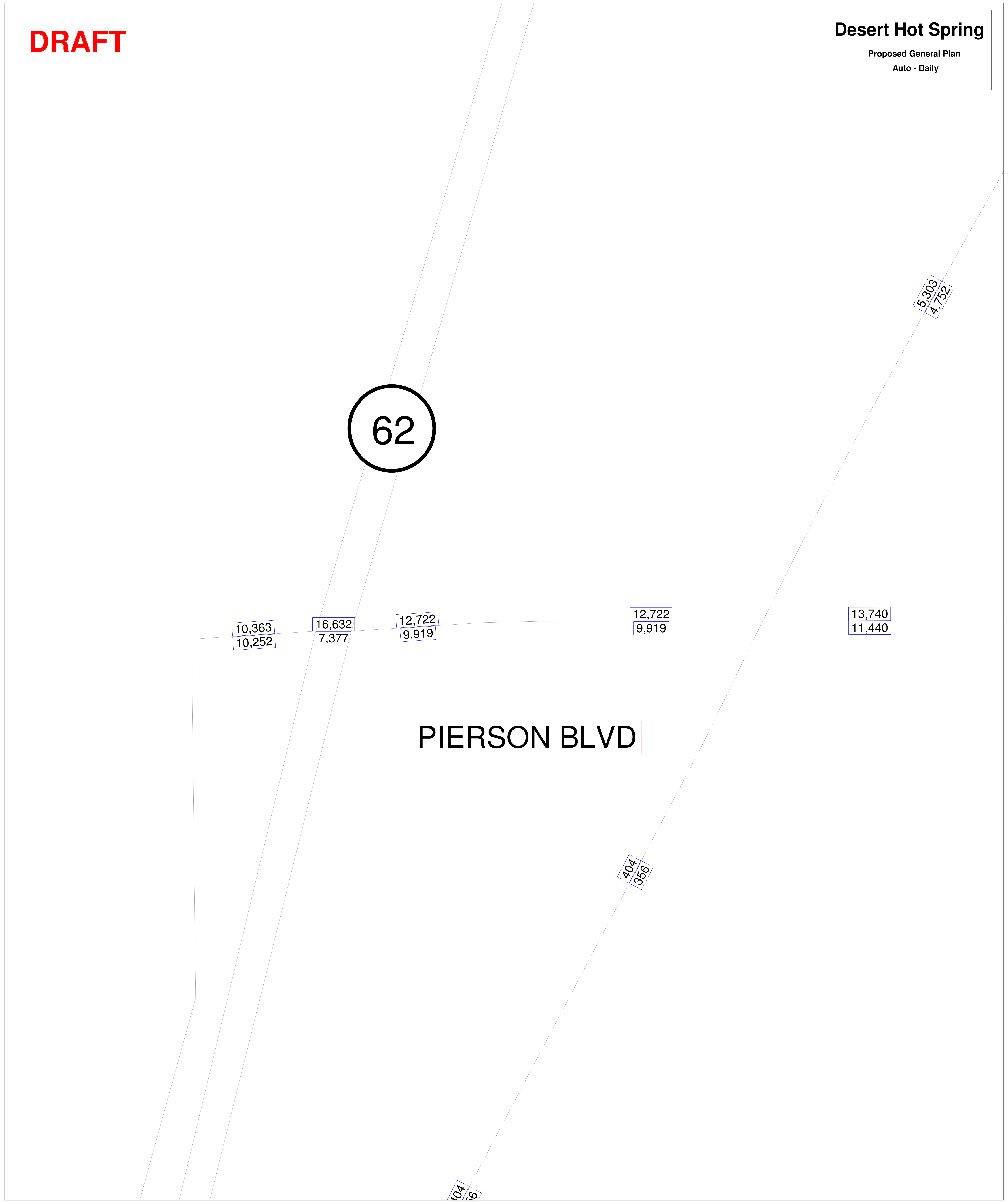

DRAFT
Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
PIERSON BLVD
PALM DR
308
553
609
424
159
167
87
0
634
551
1,208
681
1,140
893
1,314
1,228
1,115
825
1,128
917
1,218
1,046
965
947
294
449
465
481
1,176
445
22
13
892
514
147
24
312
237
164
155
164
155
111
88
111
88
254
317
1,176
445
88
79
668
326
254
317
303
356
1,073
385
668
326
245
172
400
310
362
247
362
247
550
704
217
254
283
342
272
265
343
319
1,480
676
668
326
76
112
2,242
760
626
266
926
317
856
657
894
720
1,738
655
1,552
583

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
PIERSON BLVD
PALM DR
553
424
159
87
551
681
893
1,228
825
917
1,046
947
449
481
445
22
514
24
237
155
155
88
88
317
445
88
326
317
385
356
326
172
310
247
247
704
254
342
265
319
676
326
112
760
266
317
657
720
655
583

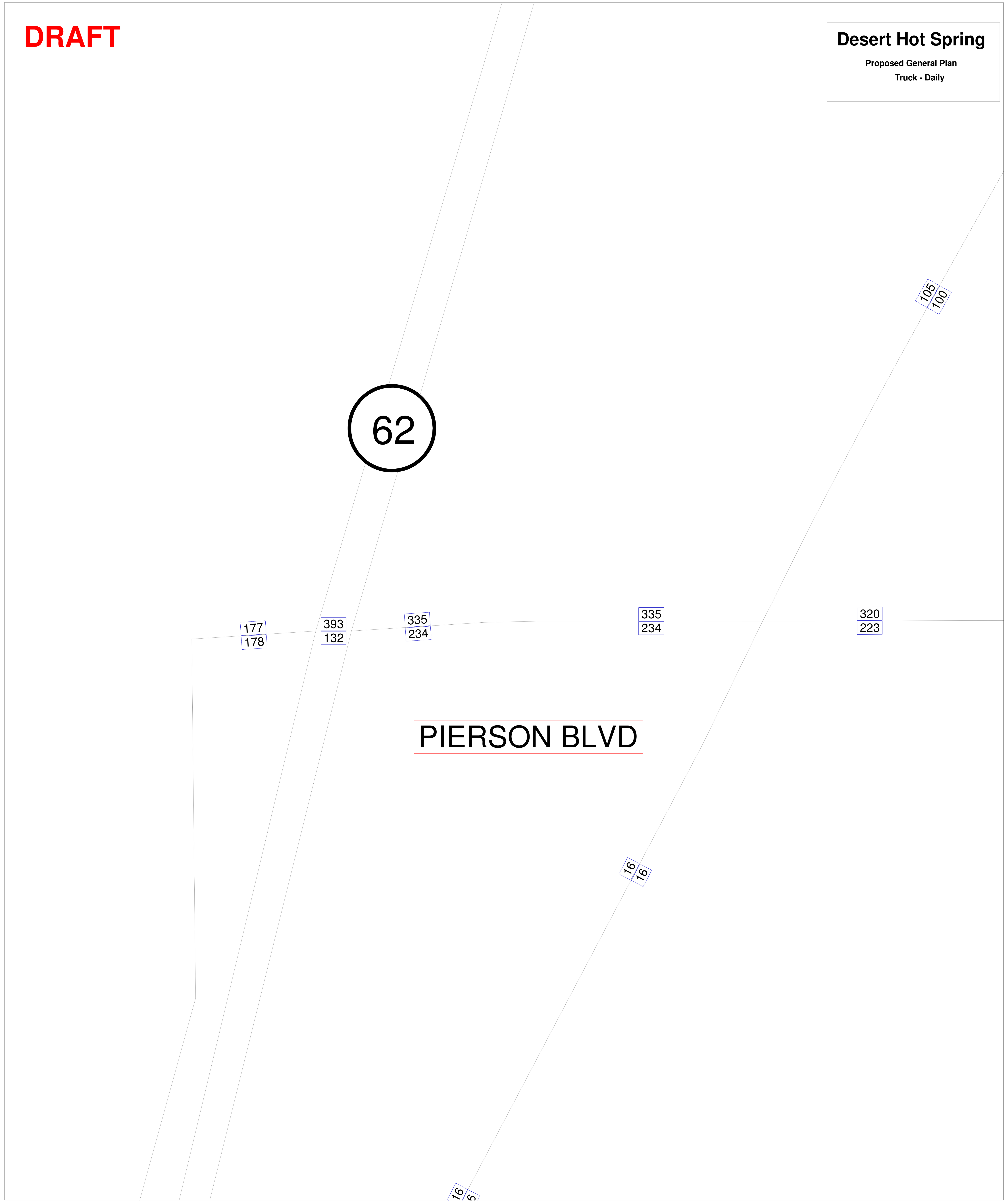

DRAFT
Desert Hot Spring
Proposed General Plan
Auto - Daily
PIERSON BLVD
MESQUITE AVE
VERBENA DR
DESERT VIEW AVE
MIRACLE HILL RD
HACIENDA AVE
PALM DR
TWO BUNCH PALMS TRL

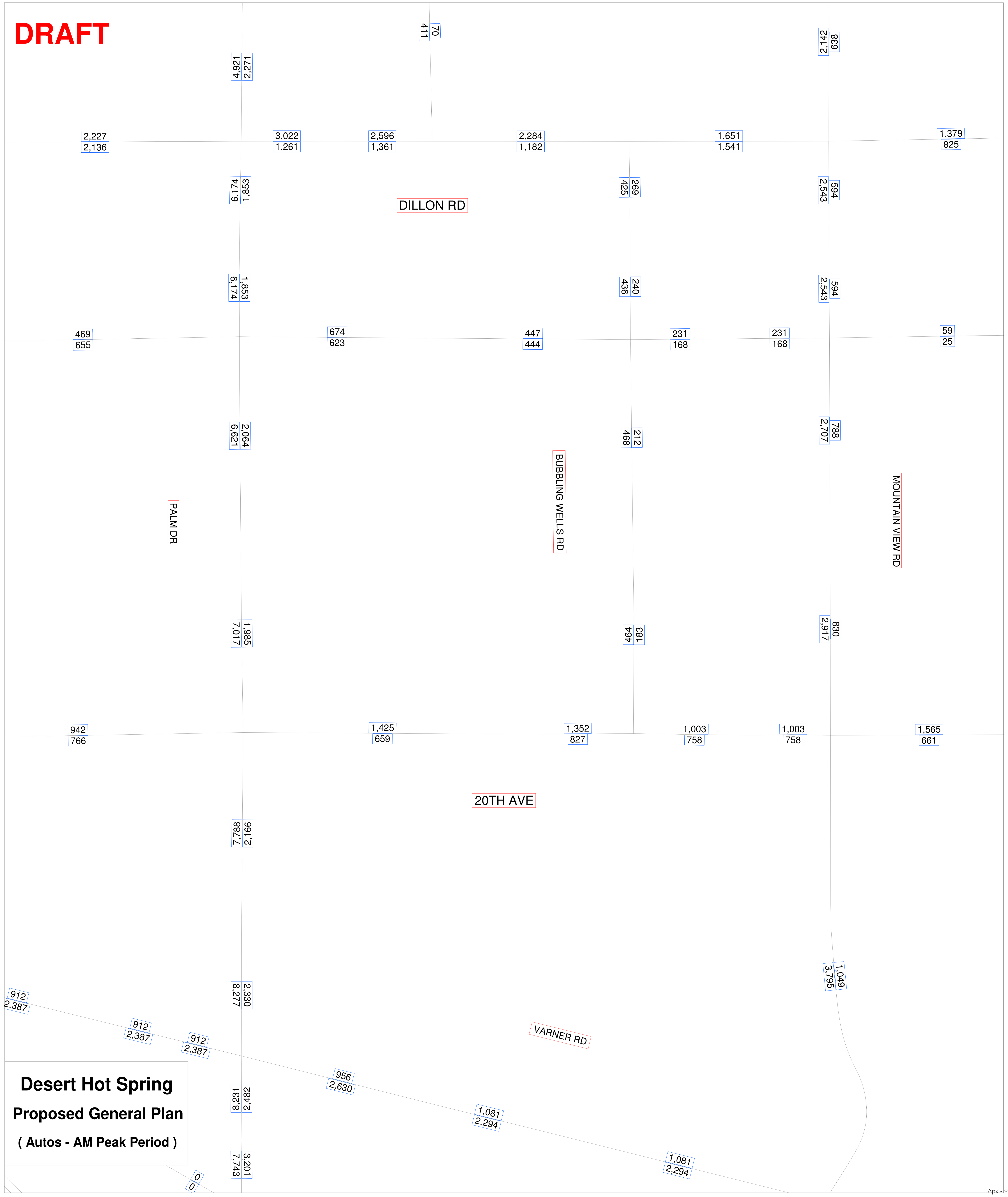

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - Daily
PIERSON BLVD
MESQUITE AVE
VERBENA DR
DESERT VIEW AVE
MIRACLE HILL RD
HACIENDA AVE
PALM DR
TWO BUNCH PALMS TRL


DRAFT
Desert Hot Spring
Proposed General Plan
Auto - Daily
20TH AVE
26,939
29,249
26,939
29,249
36,733
40,514
4,860
10,065
6,410
5,729
32,599
31,176
62,299
54,038
32,599
31,176
12,611
13,873
19,071
18,909
2,441
2,404
1
2

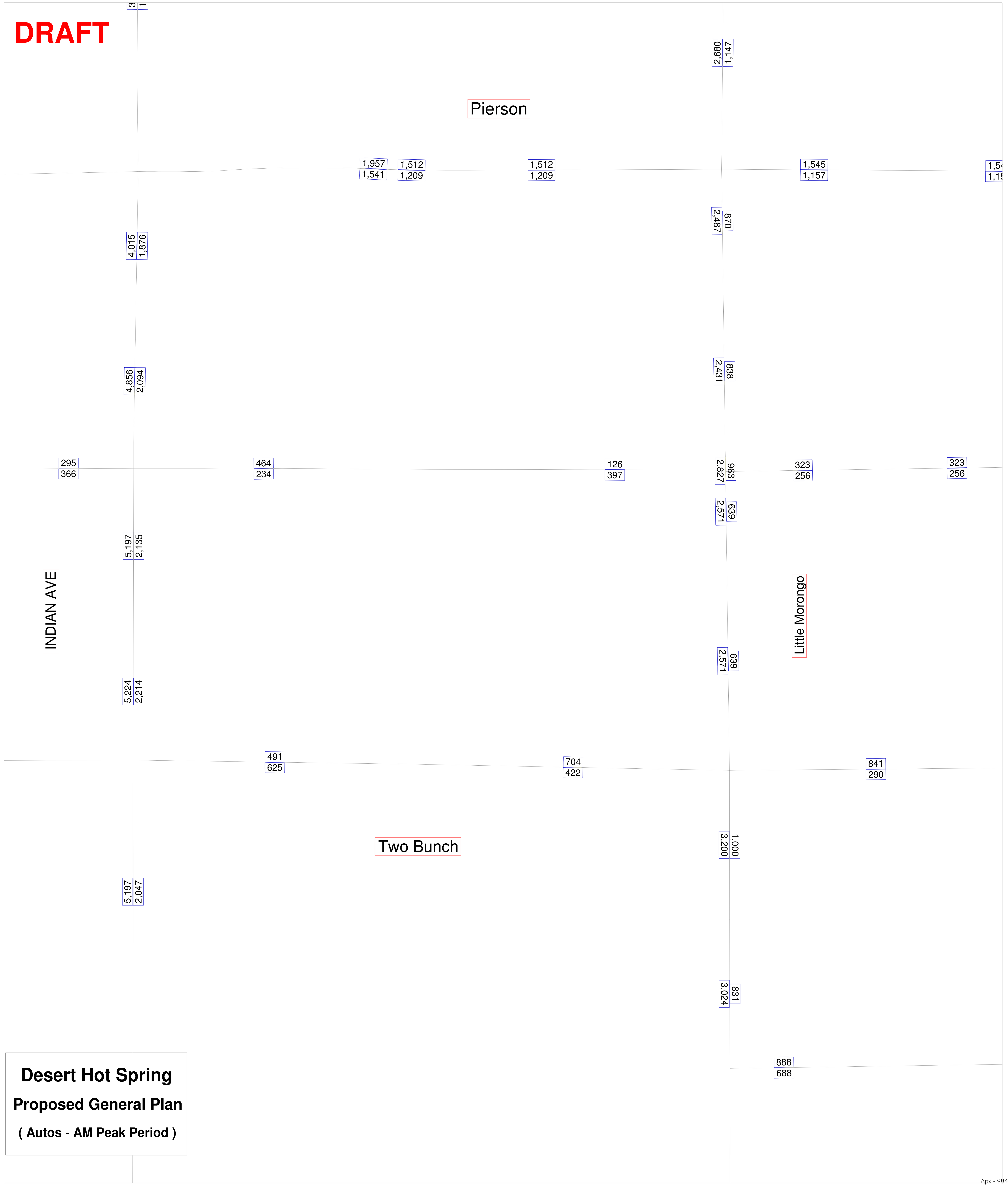

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - Daily
20TH AVE
797
1,403
797
1,403
1,321
2,152
528
415
345
264
821
1,764
17,332
17,947
415
821
1,764
1,406
484
355
377

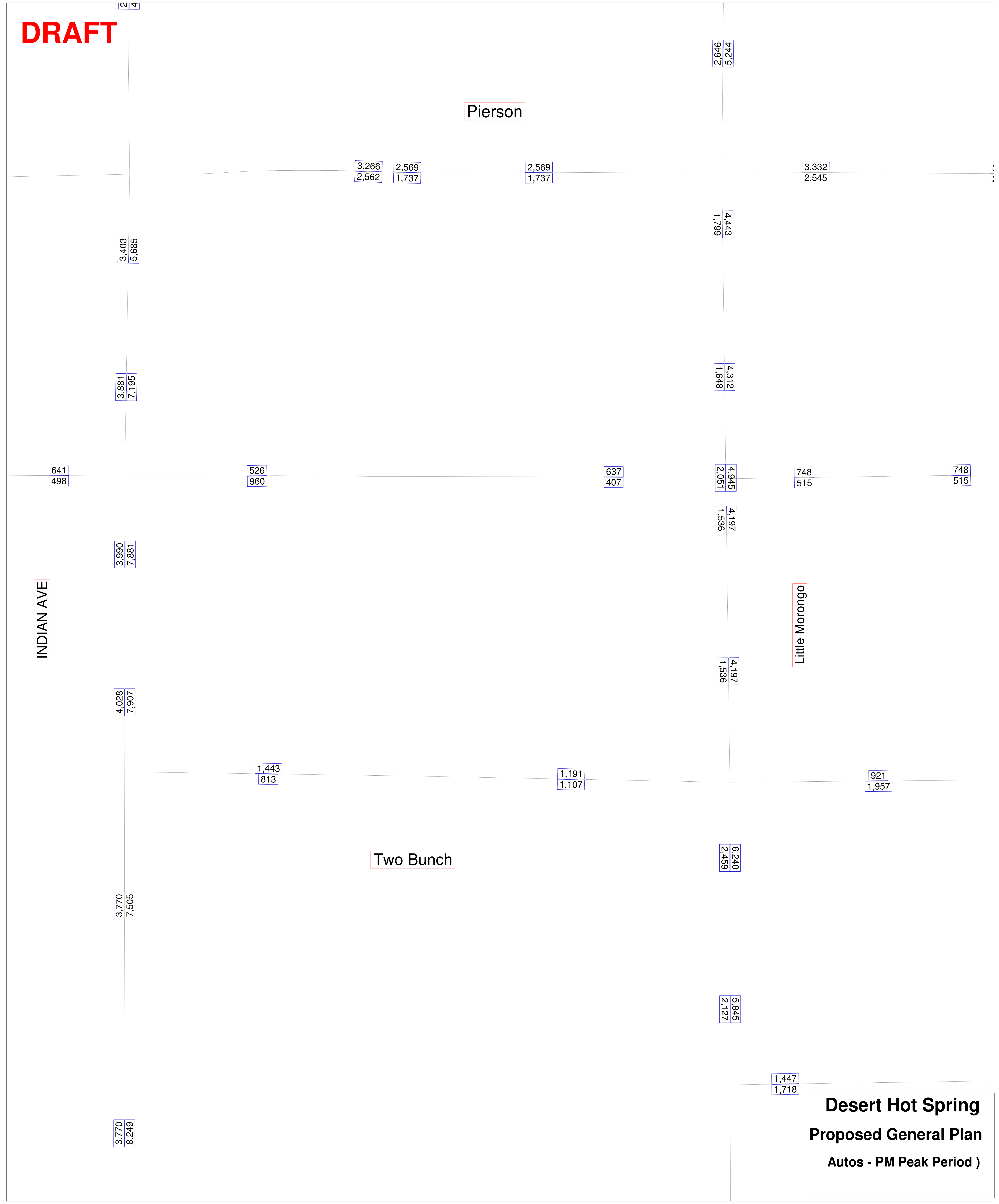

DRAFT
Desert Hot Spring
Proposed General Plan
Auto - Daily
62
PIERSON BLVD
5,303
4,752
10,363
10,252
16,632
7,377
12,722
9,919
12,722
9,919
13,740
11,440
404
356

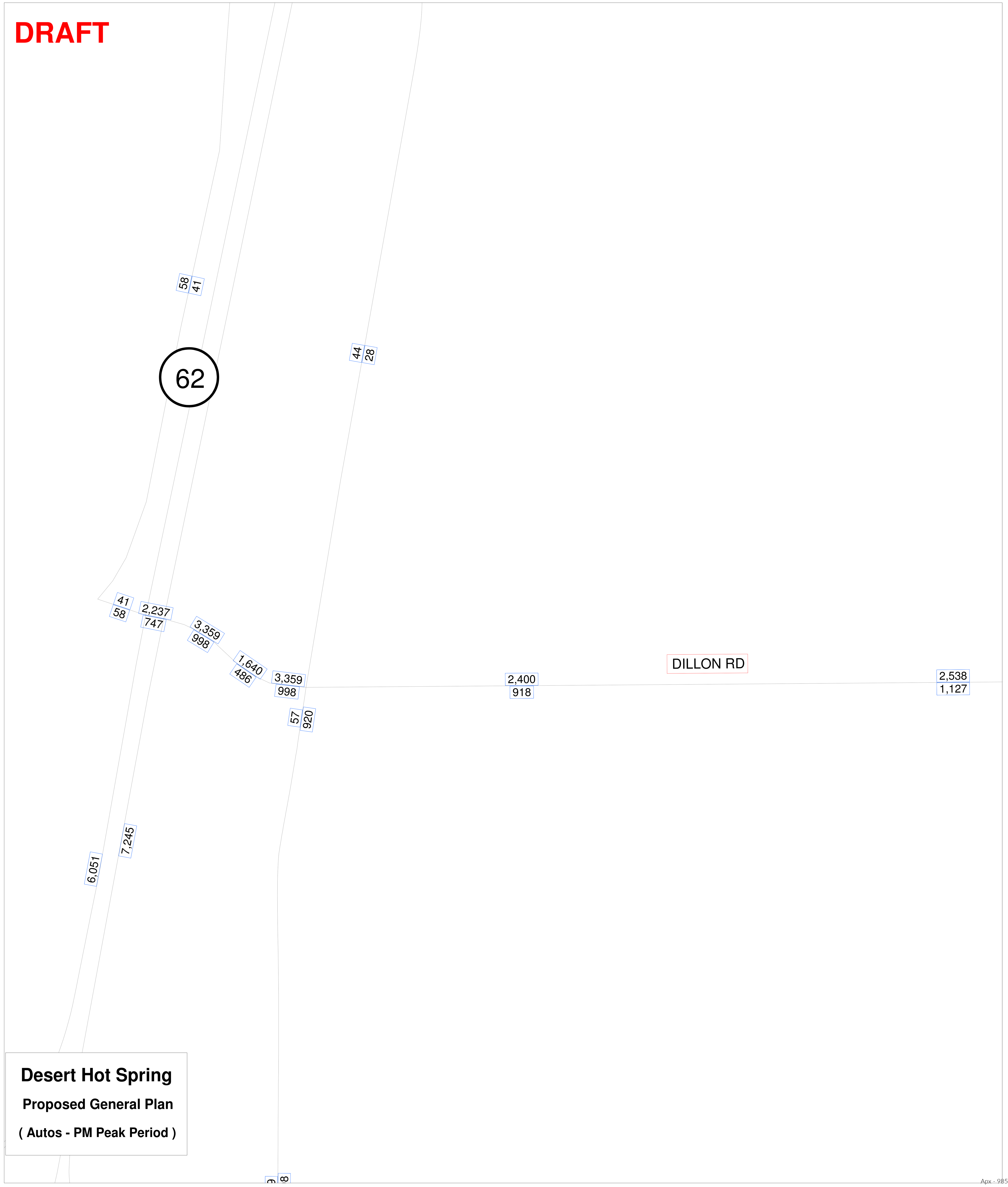

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - Daily
62
PIERSON BLVD
105
100
177
178
393
132
335
234
335
234
320
223
16
16

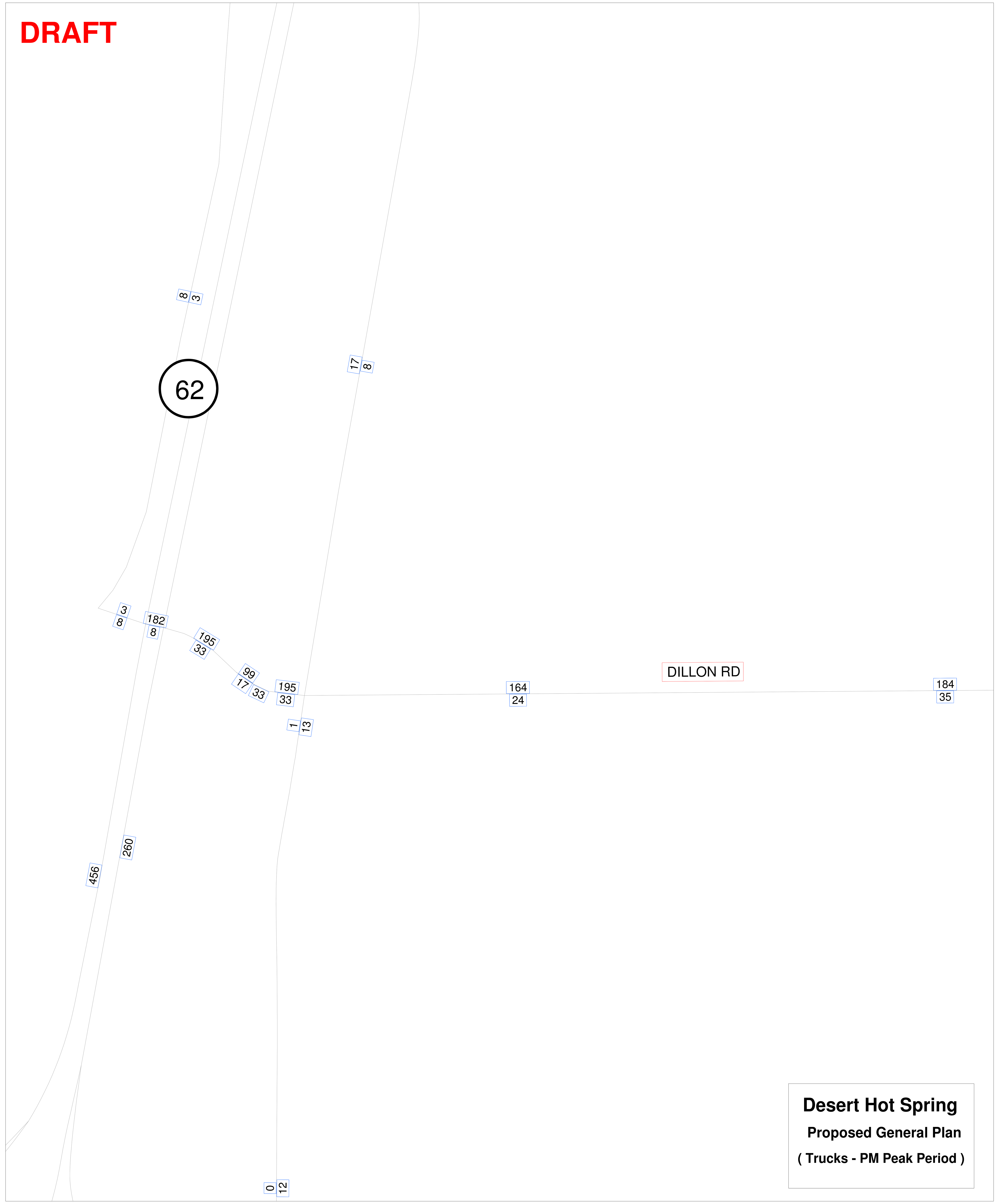

DRAFT
DILLON RD
PALM DR
BUBBLING WELLS RD
MOUNTAIN VIEW RD
20TH AVE
VARNER RD
Desert Hot Spring
Proposed General Plan
(Autos - AM Peak Period)

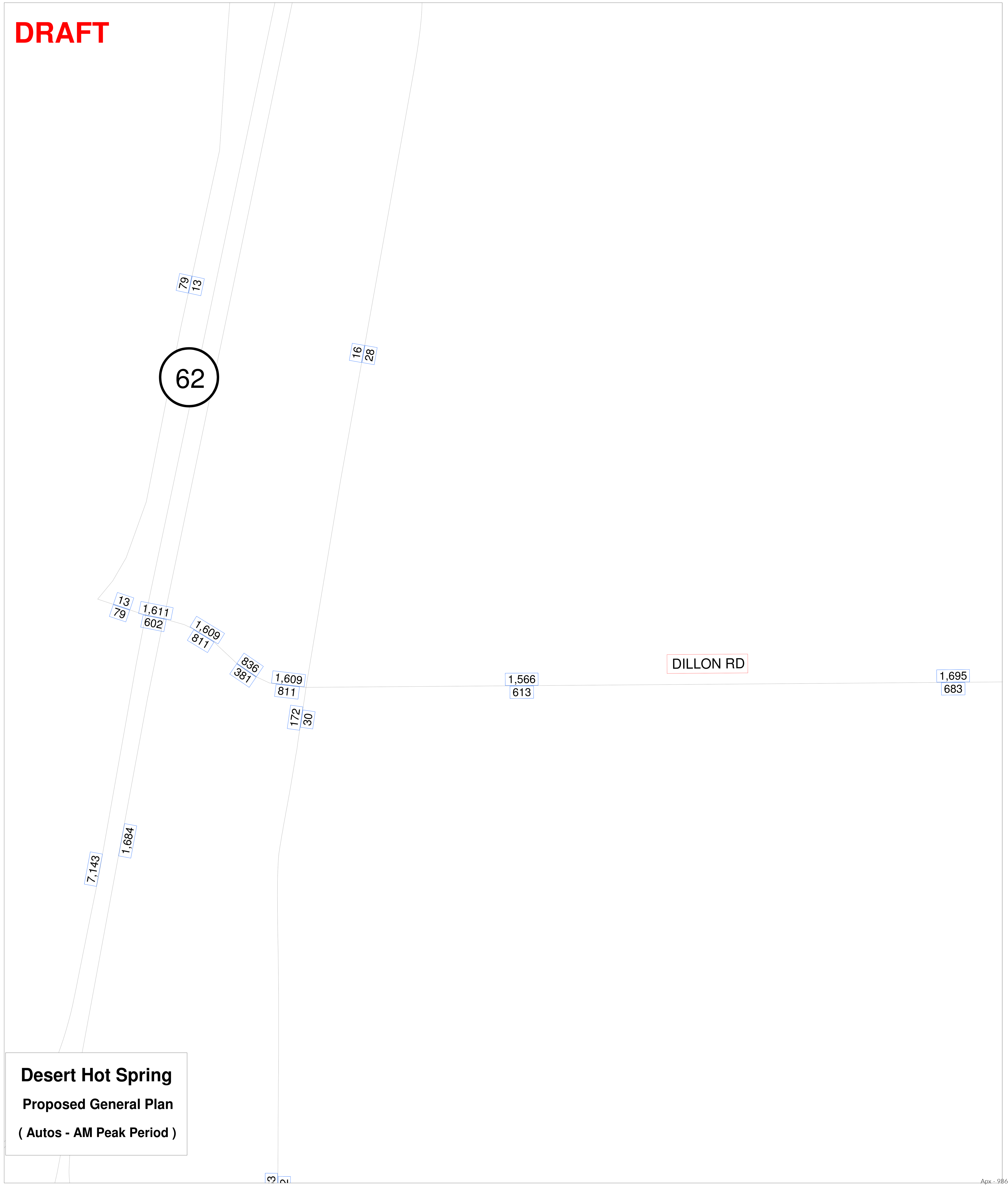

DRAFT
DILLON RD
PALM DR
BUBBLING WELLS RD
MOUNTAIN VIEW RD
20TH AVE
VARNER RD
Desert Hot Spring
Proposed General Plan
(Autos - PM Peak Period)

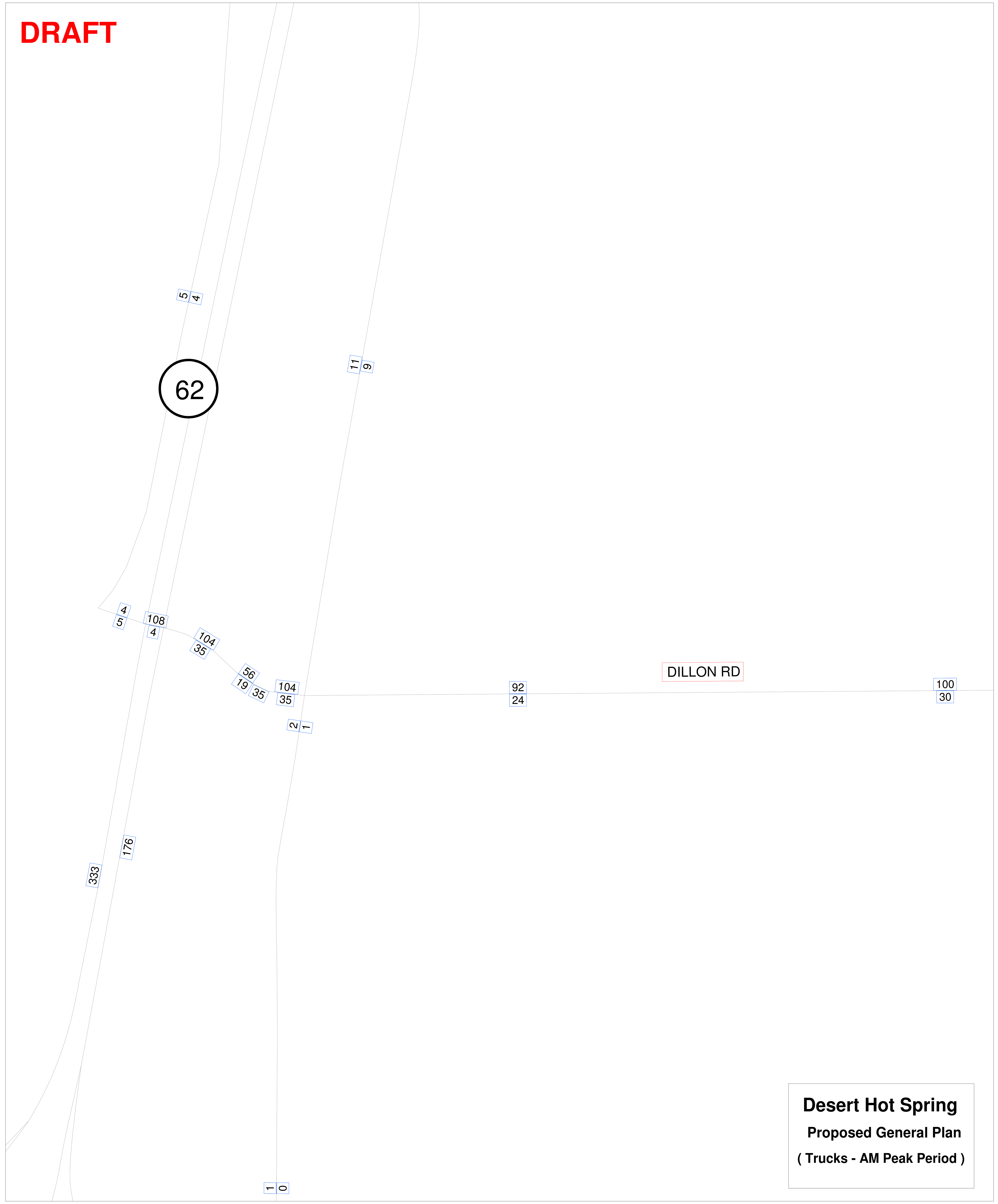

DRAFT
Pierson
INDIAN AVE
Little Morongo
Two Bunch
2,680 1,147
1,957 1,541
1,512 1,209
1,512 1,209
1,545 1,157
4,015 1,876
2,487 870
4,856 2,094
2,431 838
295 366
464 234
126 397
2,827 963
323 256
323 256
2,571 639
5,197 2,135
2,571 639
5,224 2,214
491 625
704 422
841 290
3,200 1,000
5,197 2,047
3,024 831
888 688
Desert Hot Spring
Proposed General Plan
(Autos - AM Peak Period)

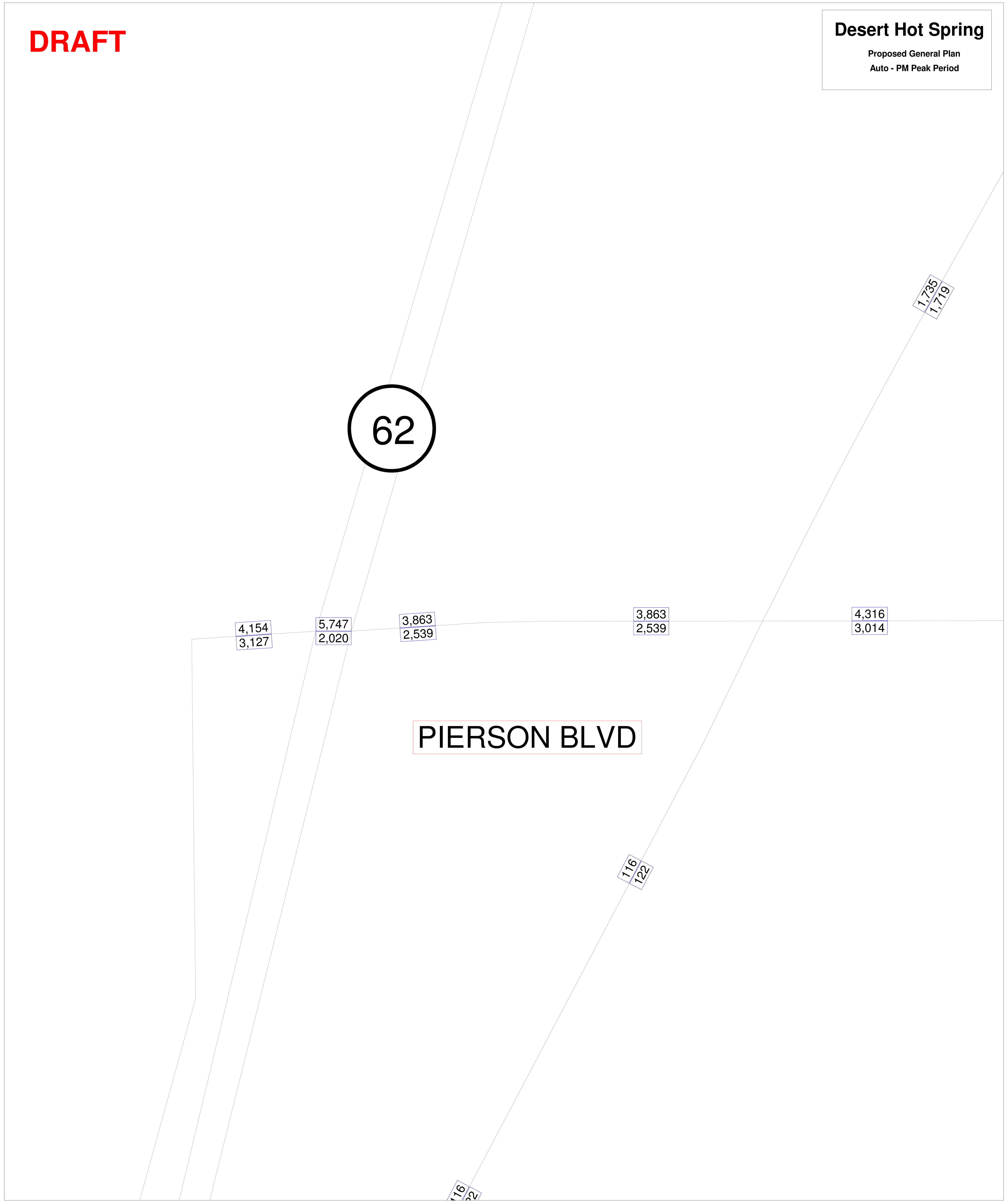

DRAFT
Pierson
INDIAN AVE
Little Morongo
Two Bunch
2,646 5,244
3,266 2,562
2,569 1,737
2,569 1,737
3,332 2,545
1,799 4,443
3,403 5,685
1,646 4,312
3,881 7,195
641 498
526 960
637 407
2,051 4,945
748 515
748 515
1,536 4,197
3,990 7,881
1,536 4,197
4,028 7,907
1,443 813
1,191 1,107
921 1,957
2,459 6,240
3,770 7,505
2,127 5,845
1,447 1,718
3,770 8,249
Desert Hot Spring
Proposed General Plan
Autos - PM Peak Period)

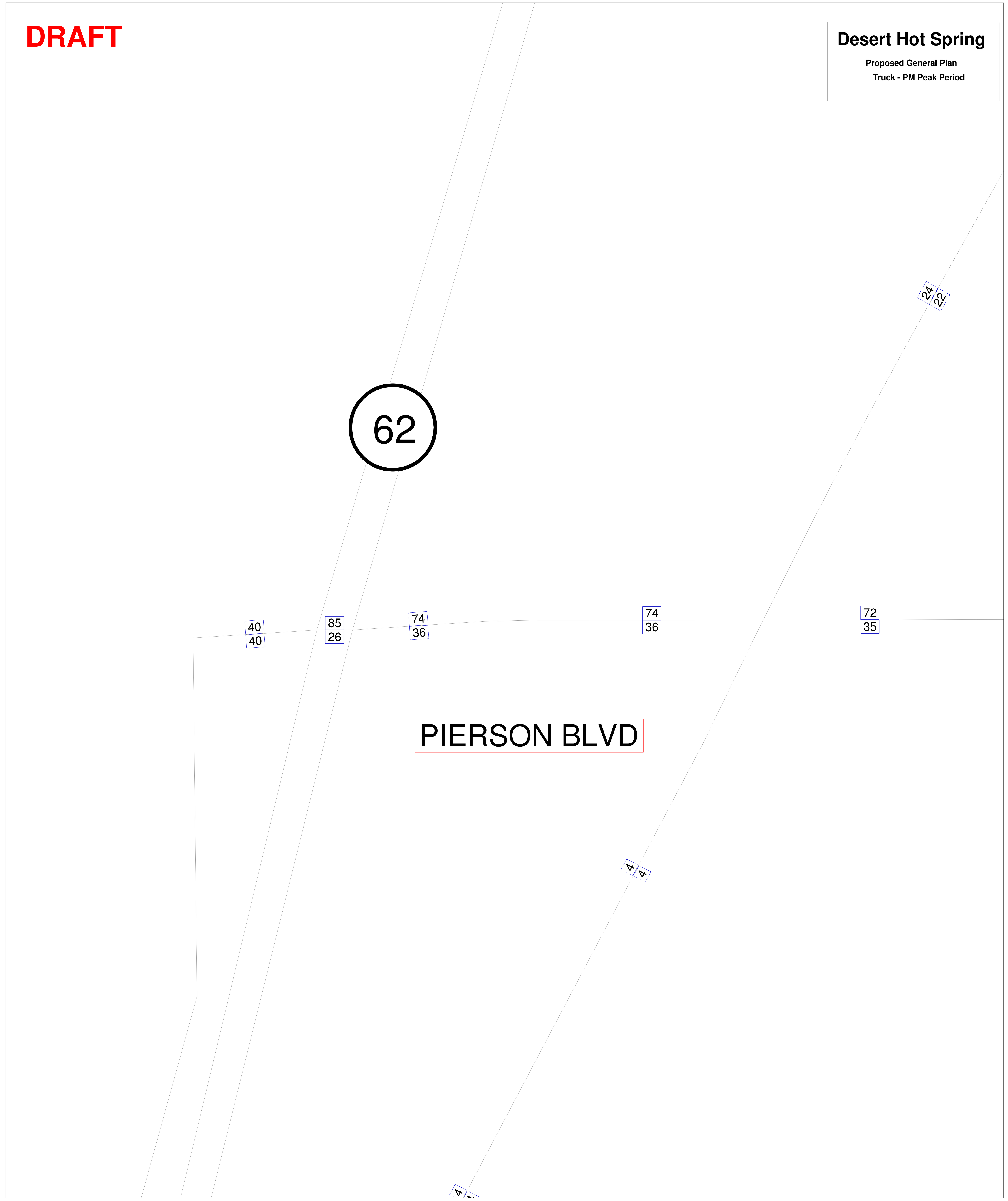

DRAFT
58
41
62
44
28
41
58
2,237
747
3,359
998
1,640
486
3,359
998
2,400
918
DILLON RD
2,538
1,127
57
920
7,245
6,051
Desert Hot Spring
Proposed General Plan
(Autos - PM Peak Period)


DRAFT
8
3
62
17
8
3
8
182
8
195
33
99
17
33
195
33
164
24
DILLON RD
184
35
1
13
260
456
0
12
Desert Hot Spring
Proposed General Plan
(Trucks - PM Peak Period)

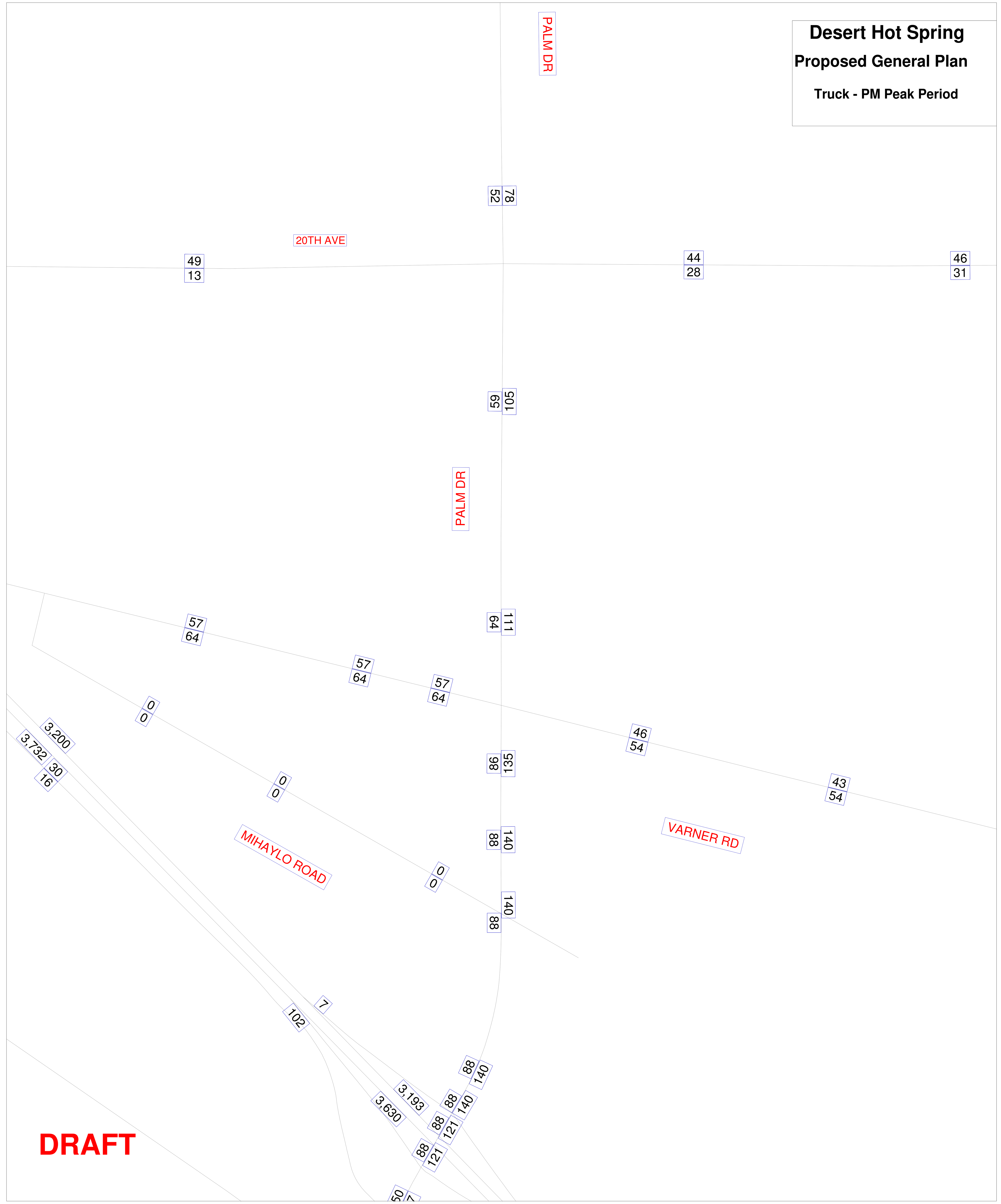

DRAFT
62
DILLON RD
79
13
16
28
13
79
1,611
602
1,609
811
836
381
1,609
811
1,566
613
1,695
683
172
30
1,684
7,143
Desert Hot Spring
Proposed General Plan
(Autos - AM Peak Period)


DRAFT
62
DILLON RD
5
4
11
9
4
5
108
4
104
35
56
19
35
104
35
92
24
100
30
2
1
176
333
1
0
Desert Hot Spring
Proposed General Plan
(Trucks - AM Peak Period)


DRAFT
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
1,735
1,719
62
4,154
3,127
5,747
2,020
3,863
2,539
3,863
2,539
4,316
3,014
PIERSON BLVD
116
122

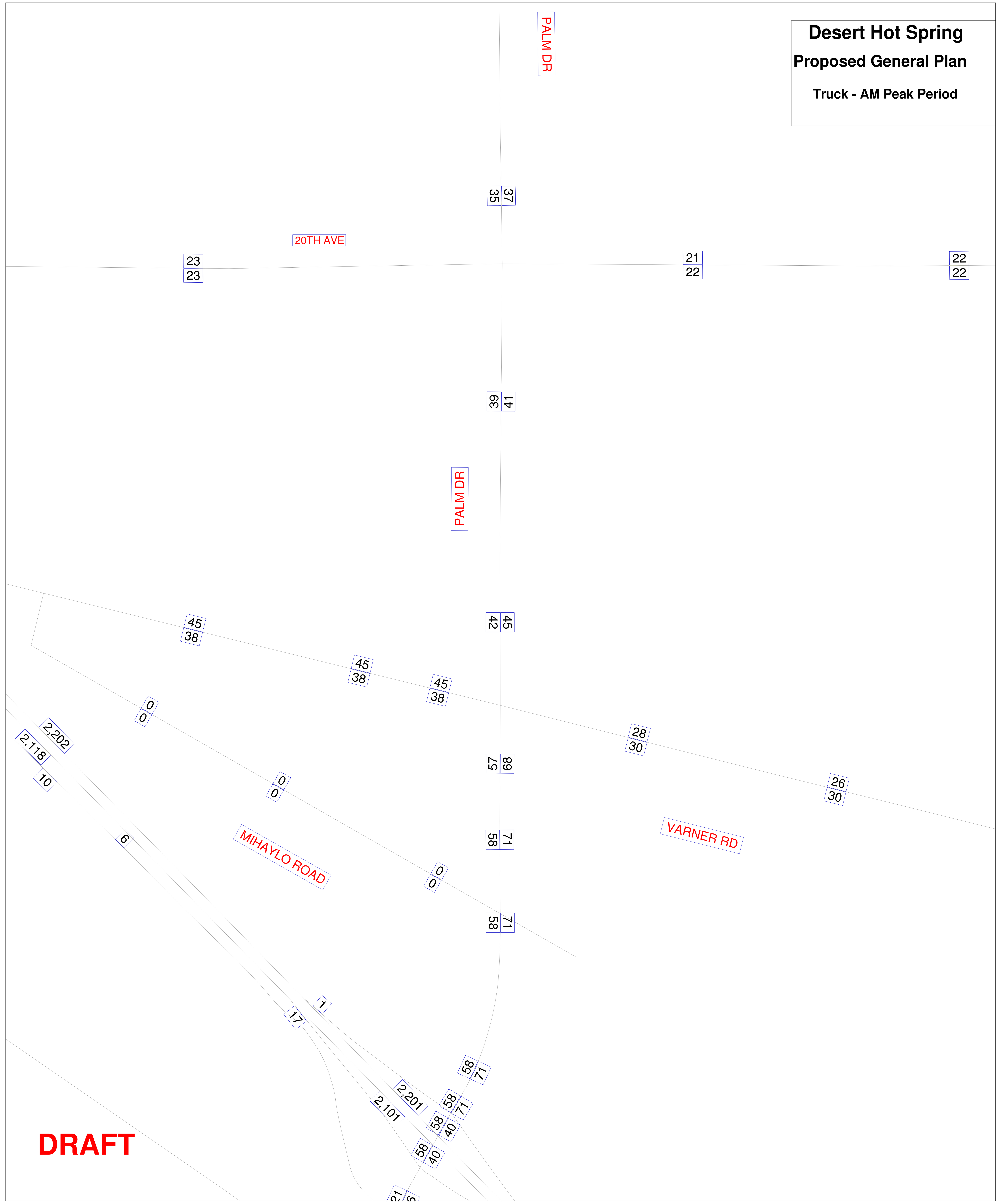

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
24
22
62
40
40
85
26
74
36
74
36
72
35
PIERSON BLVD
4
4

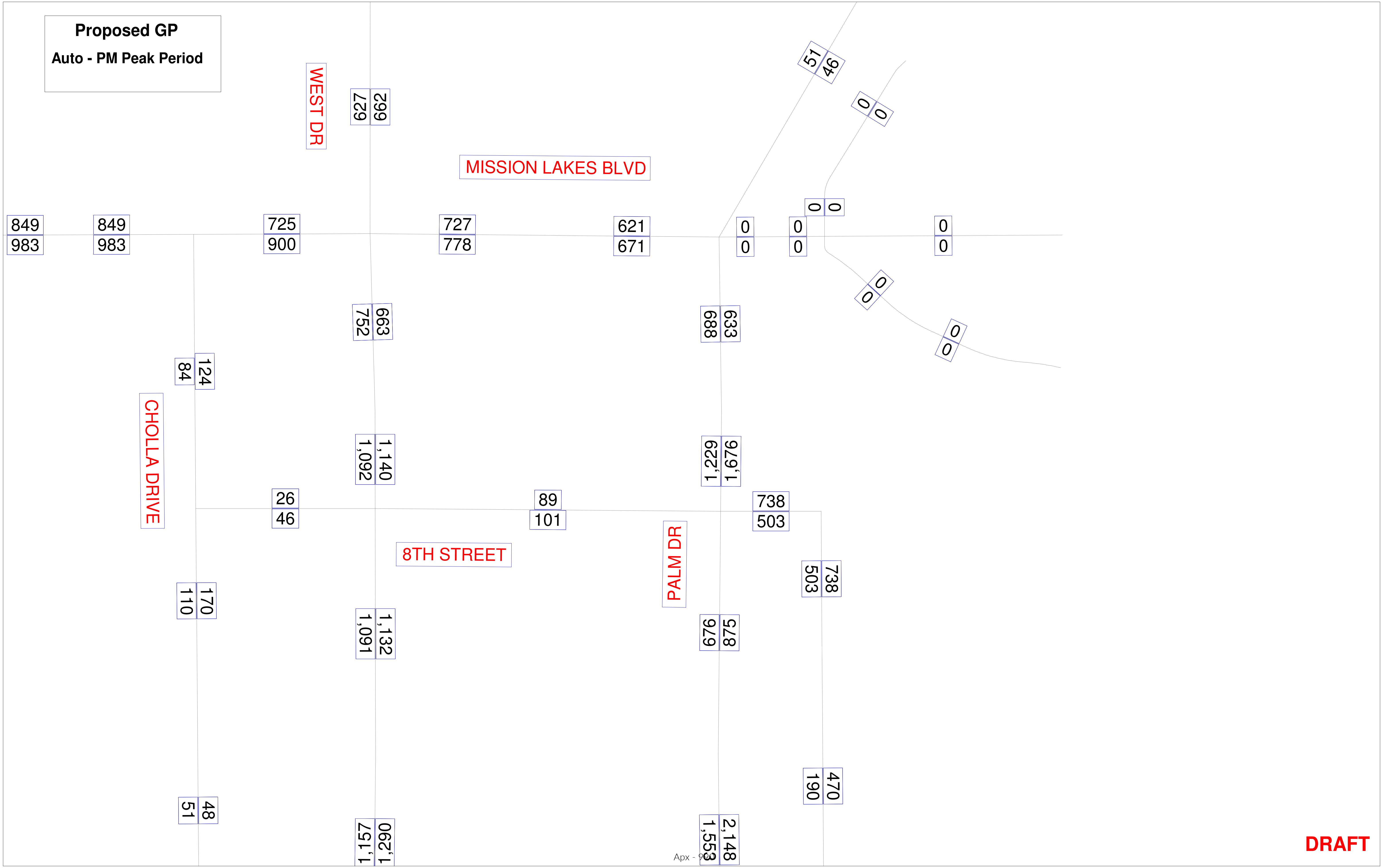
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
PALM DR
20TH AVE
PALM DR
MIHAYLO ROAD
VARNER RD
12,381
5,860
1,401
1,084
1,365
2,952
1,850
3,008
14,782
6,358
15,461
6,734
4,139
2,182
4,139
2,182
4,139
2,182
6,424
2,502
5,774
2,595
13,423
6,669
12,476
7,270
12,476
7,270
26,726
20,501
155
3,082
26,571
17,420
7,270
12,476
7,345
8,669
3,313
DRAFT

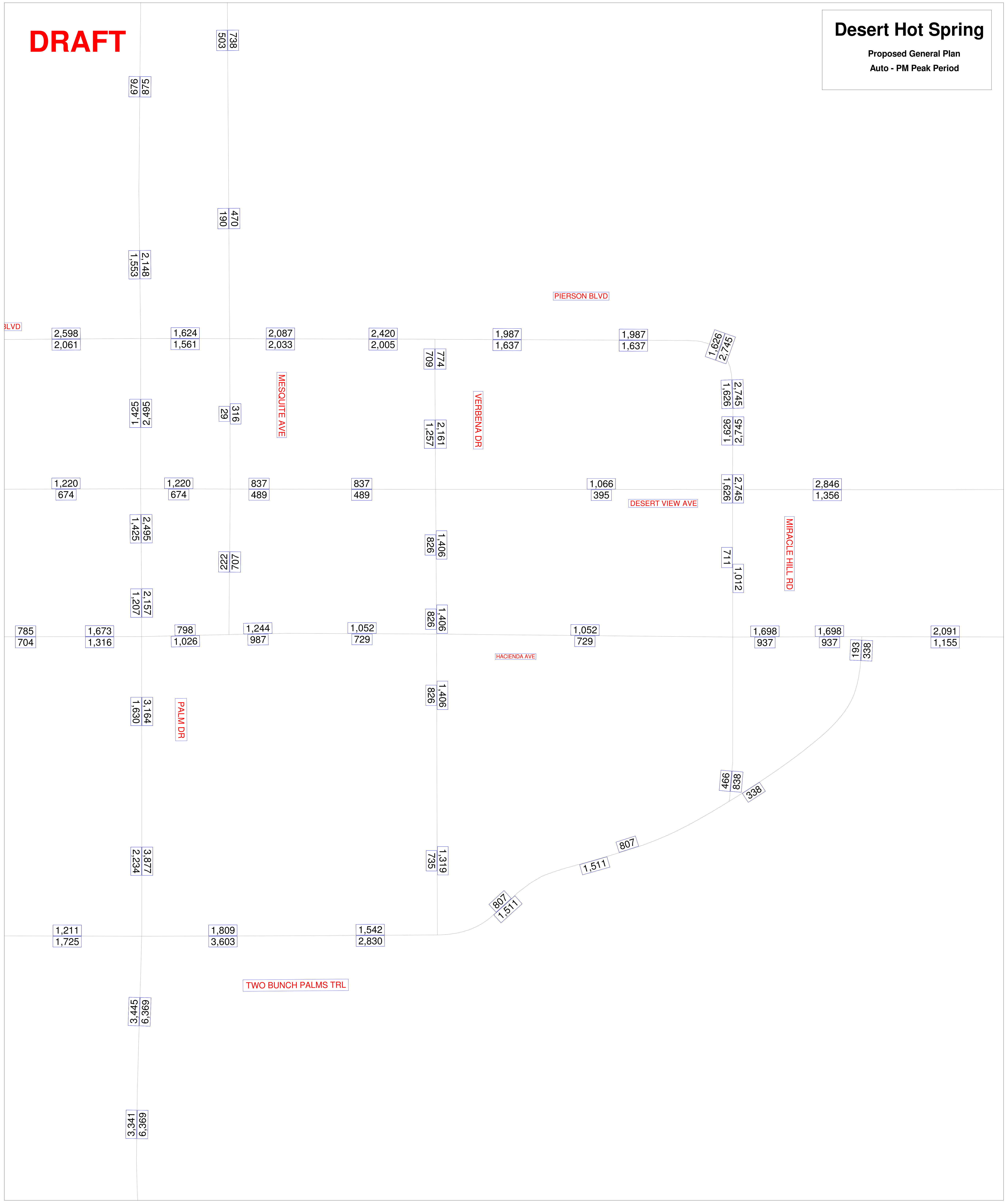


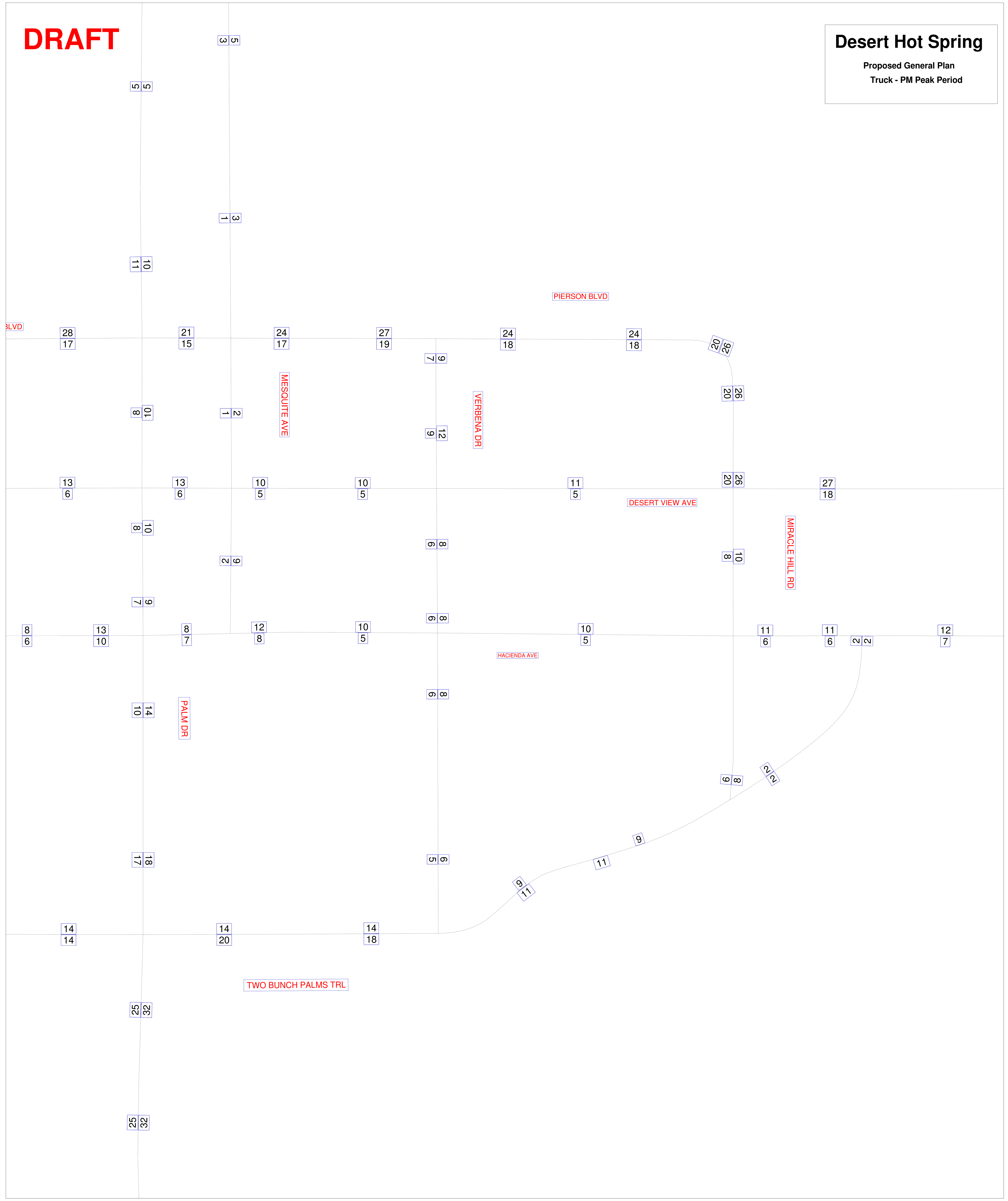
Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
PALM DR
20TH AVE
PALM DR
MIHAYLO ROAD
VARNER RD
78
52
49
13
44
28
46
31
105
59
111
64
57
64
57
64
57
64
46
54
43
54
135
96
140
88
140
88
3,200
3,732
30
16
7
102
3,193
3,630
88
140
88
140
88
121
88
121
DRAFT

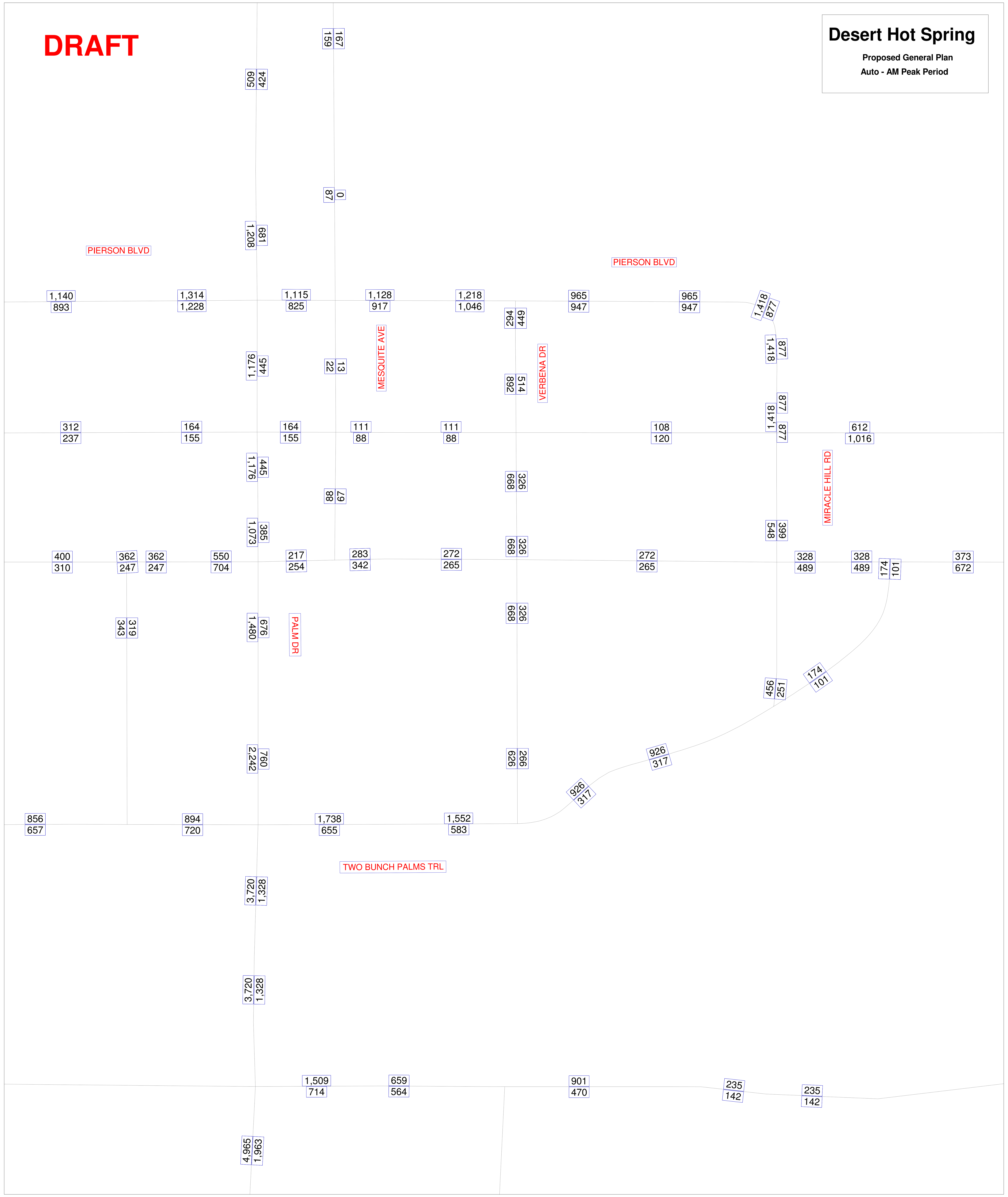

Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
PALM DR
20TH AVE
VARNER RD
MIHAYLO ROAD
1,985
7,017
942
766
1,425
659
1,352
827
7,788
2,166
2,330
8,277
912
2,387
912
2,387
912
2,387
956
2,630
1,081
2,294
8,231
2,482
3,201
7,743
3,201
7,743
10,320
15,598
0
0
0
0
0
0
28
581
7,743
3,201
10,292
15,017
7,773
1,828
3,691
416
DRAFT

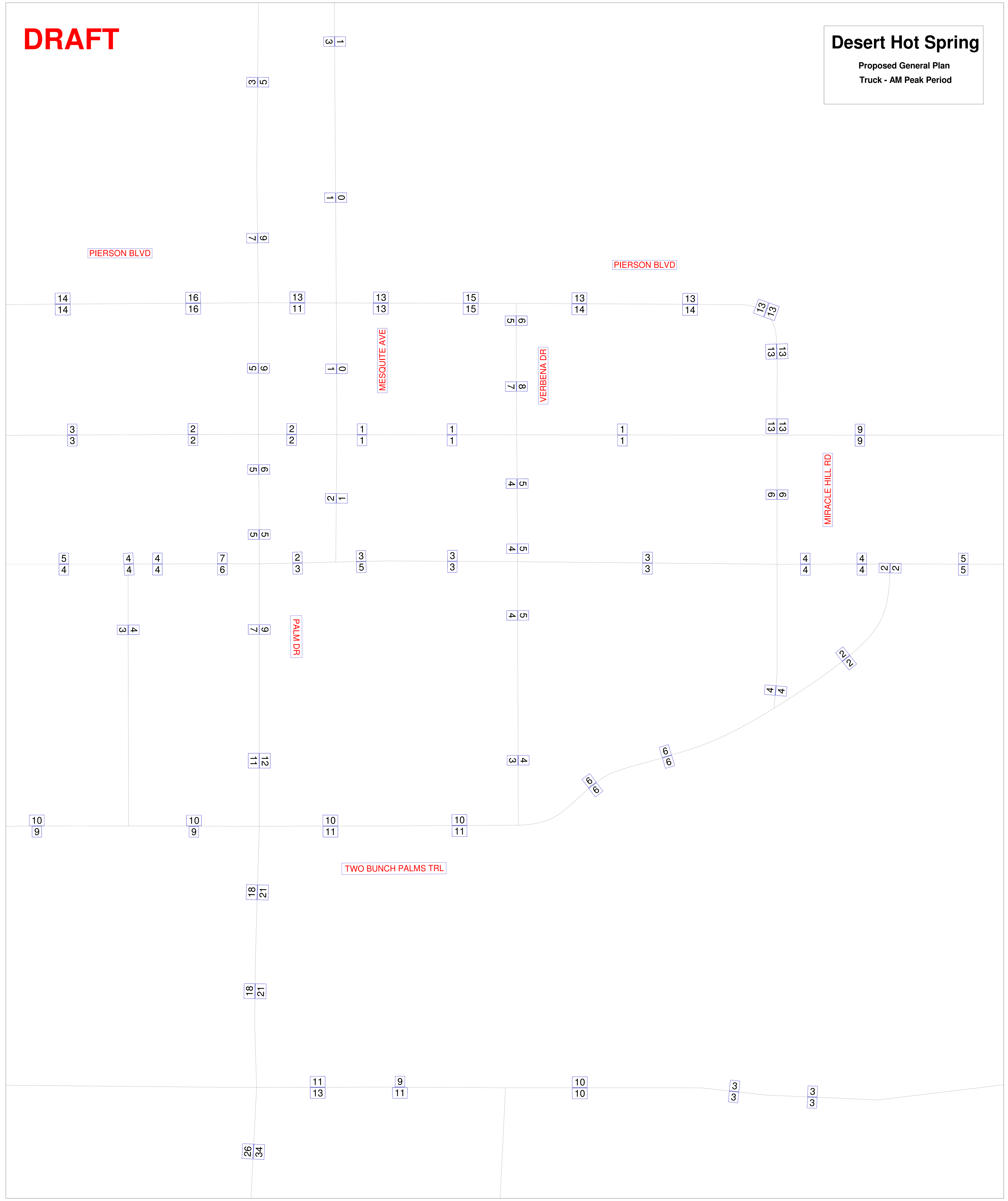

Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
PALM DR
20TH AVE
VARNER RD
MIHAYLO ROAD
35
37
23
23
21
22
22
22
39
41
42
45
45
38
45
38
45
38
28
30
26
30
57
68
58
71
58
71
2,202
2,118
10
6
0
0
0
0
0
0
1
17
58
71
58
71
2,201
2,101
58
40
58
40
DRAFT

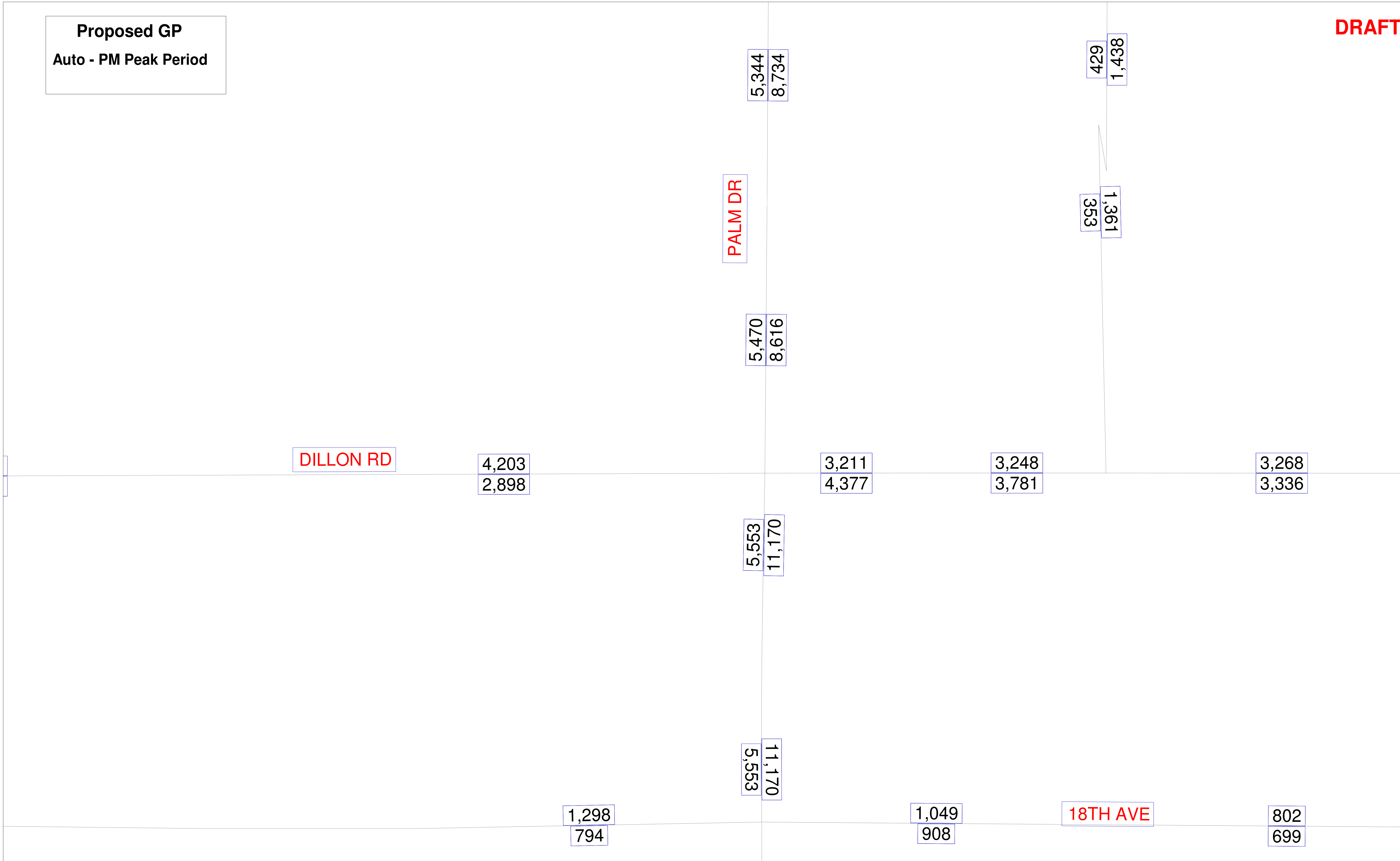

Proposed GP
Auto - PM Peak Period
WEST DR
MISSION LAKES BLVD
CHOLLA DRIVE
8TH STREET
PALM DR
849
983
849
983
725
900
627
662
727
778
621
671
51
46
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
752
663
889
633
84
124
1,092
1,140
1,229
1,676
26
46
89
101
738
503
503
738
110
170
1,091
1,132
676
875
51
48
1,157
1,290
1,553
2,148
190
470
DRAFT

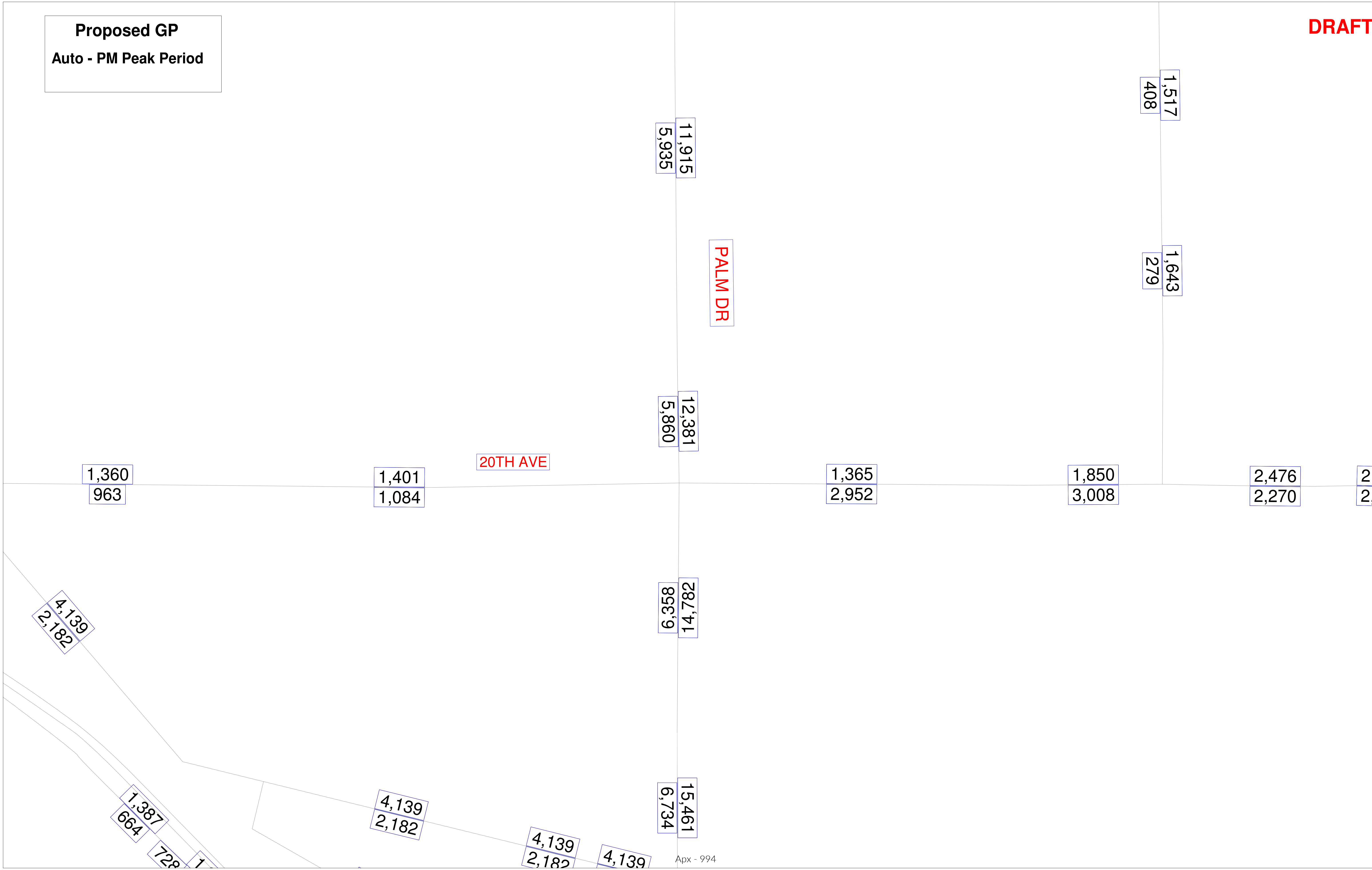

DRAFT
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
PIERSON BLVD
MESQUITE AVE
VERBENA DR
DESERT VIEW AVE
MIRACLE HILL RD
HACIENDA AVE
PALM DR
TWO BUNCH PALMS TRL

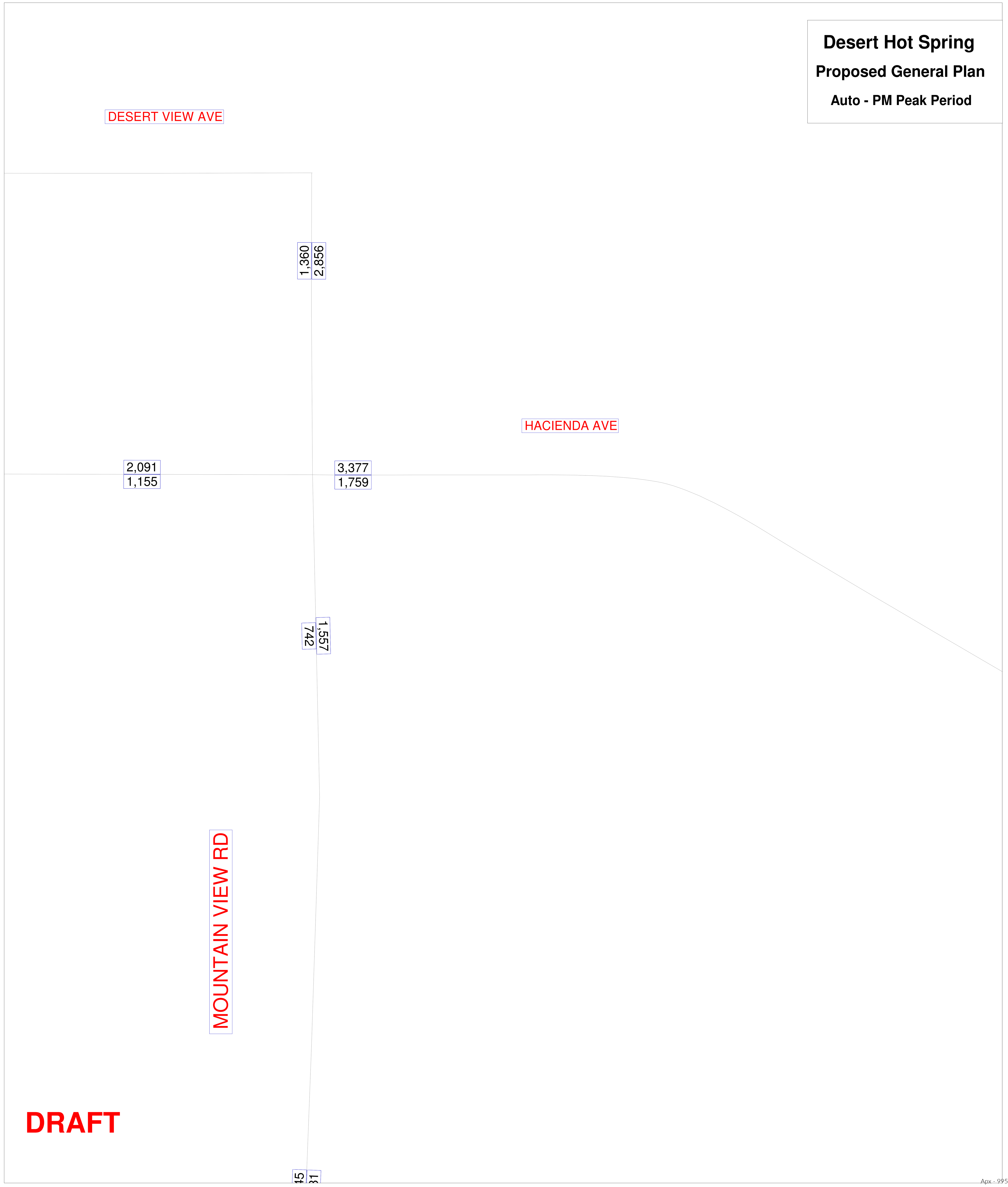

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
PIERSON BLVD
MESQUITE AVE
VERBENA DR
DESERT VIEW AVE
MIRACLE HILL RD
HACIENDA AVE
PALM DR
TWO BUNCH PALMS TRL


DRAFT
Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
PIERSON BLVD
PIERSON BLVD
MESQUITE AVE
VERBENA DR
MIRACLE HILL RD
PALM DR
TWO BUNCH PALMS TRL

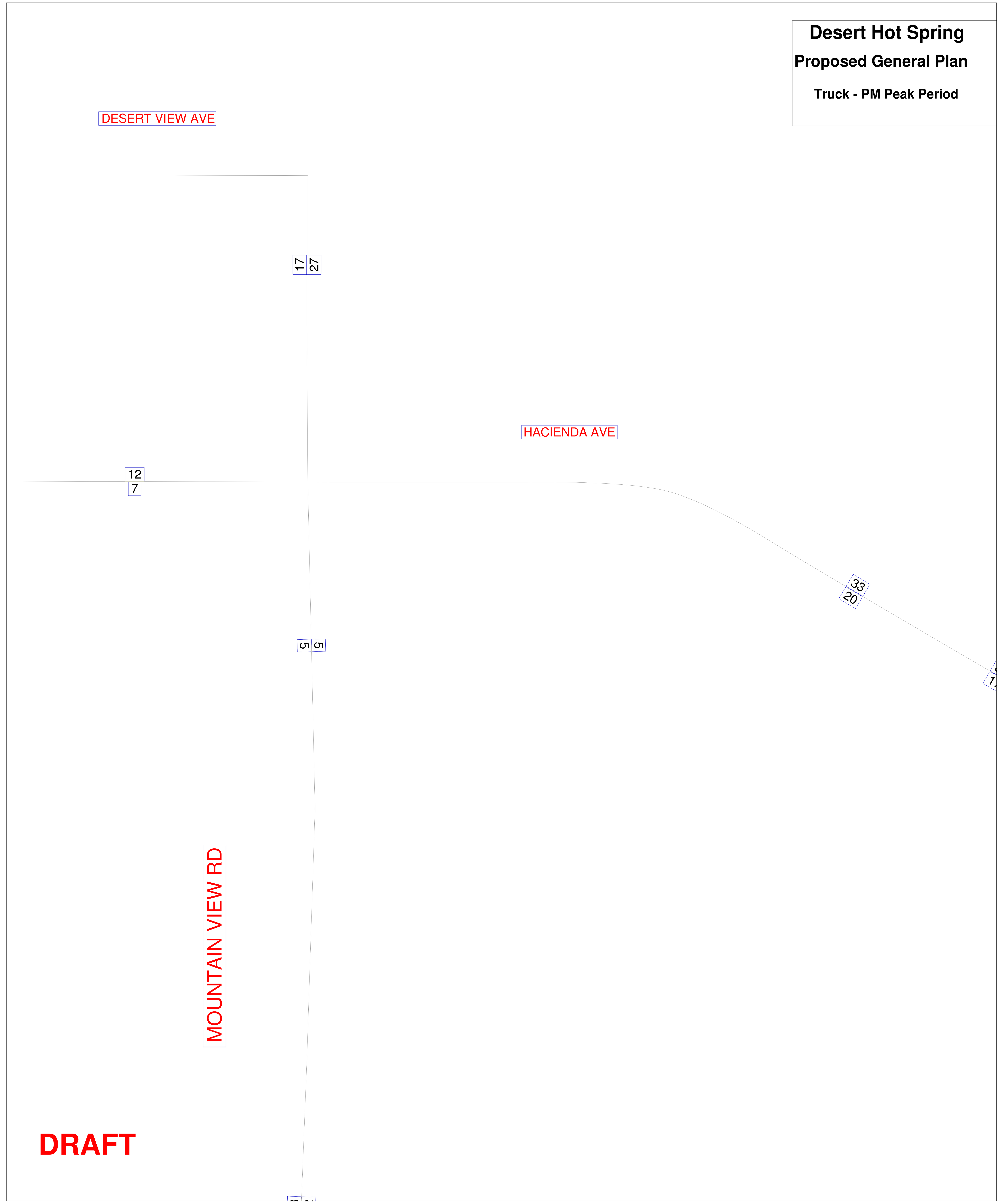

DRAFT
Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
PIERSON BLVD
PIERSON BLVD
MESQUITE AVE
VERBENA DR
MIRACLE HILL RD
PALM DR
TWO BUNCH PALMS TRL


Proposed GP
Auto - PM Peak Period
DRAFT
PALM DR
DILLON RD
18TH AVE
5,344
8,734
429
1,438
353
1,361
5,470
8,616
4,203
2,898
3,211
4,377
3,248
3,781
3,268
3,336
5,553
11,170
5,553
11,170
1,298
794
1,049
908
802
699

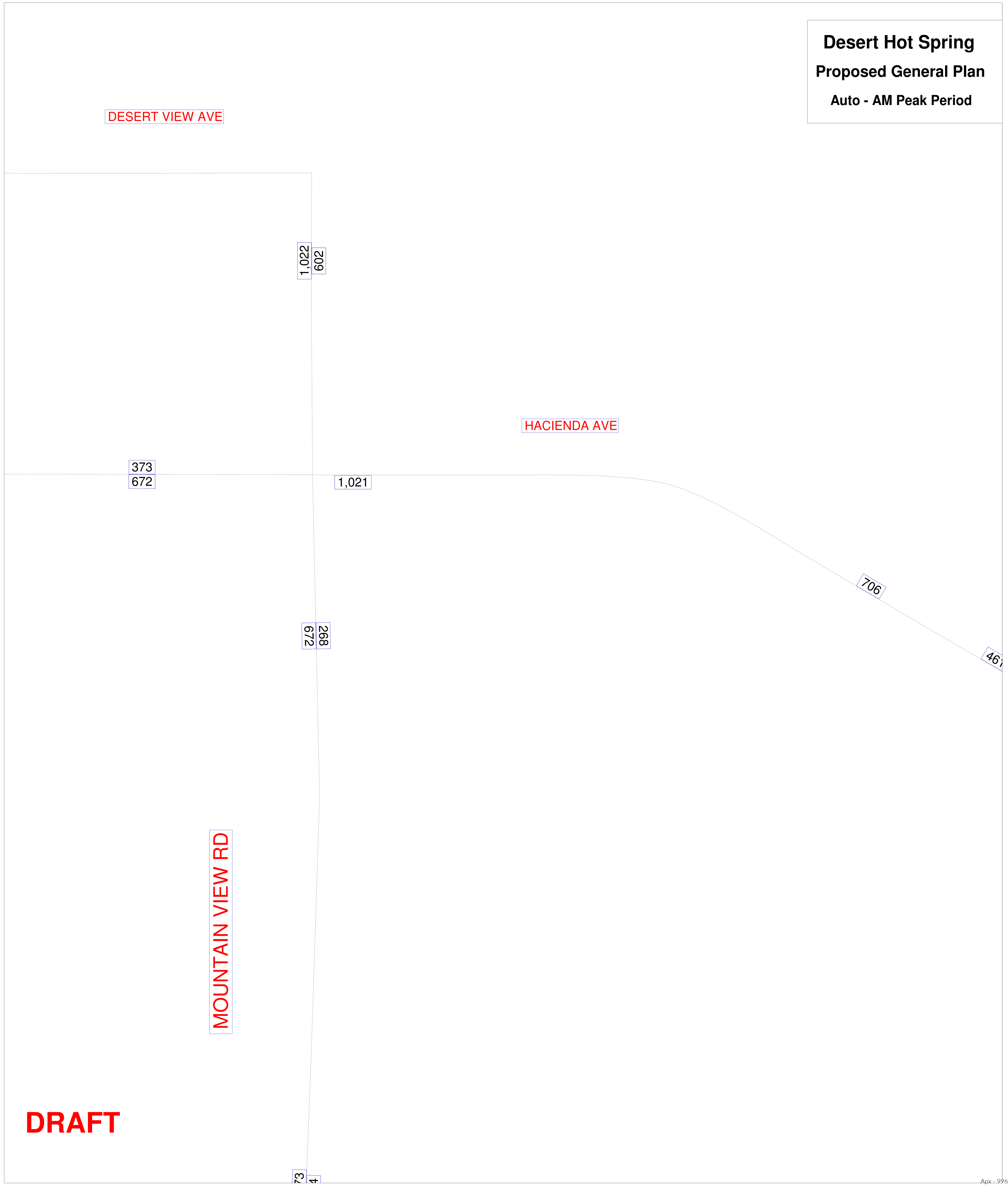

Proposed GP
Auto - PM Peak Period
DRAFT
PALM DR
20TH AVE
5,935
11,915
408
1,517
279
1,643
5,860
12,381
1,360
963
1,401
1,084
1,365
2,952
1,850
3,008
2,476
2,270
6,358
14,782
4,139
2,182
1,387
664
728
4,139
2,182
6,734
15,461
4,139
2,182
4,139

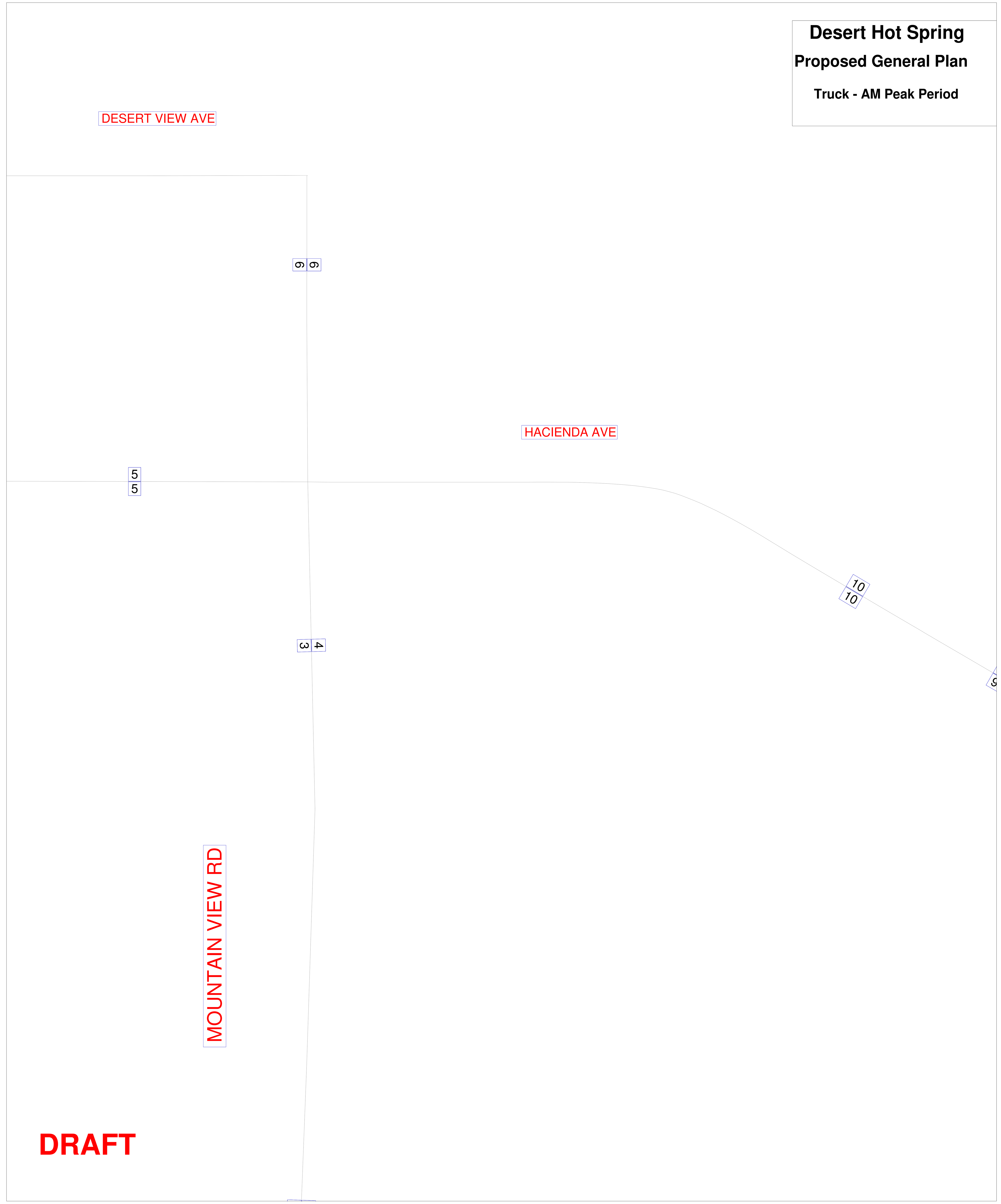


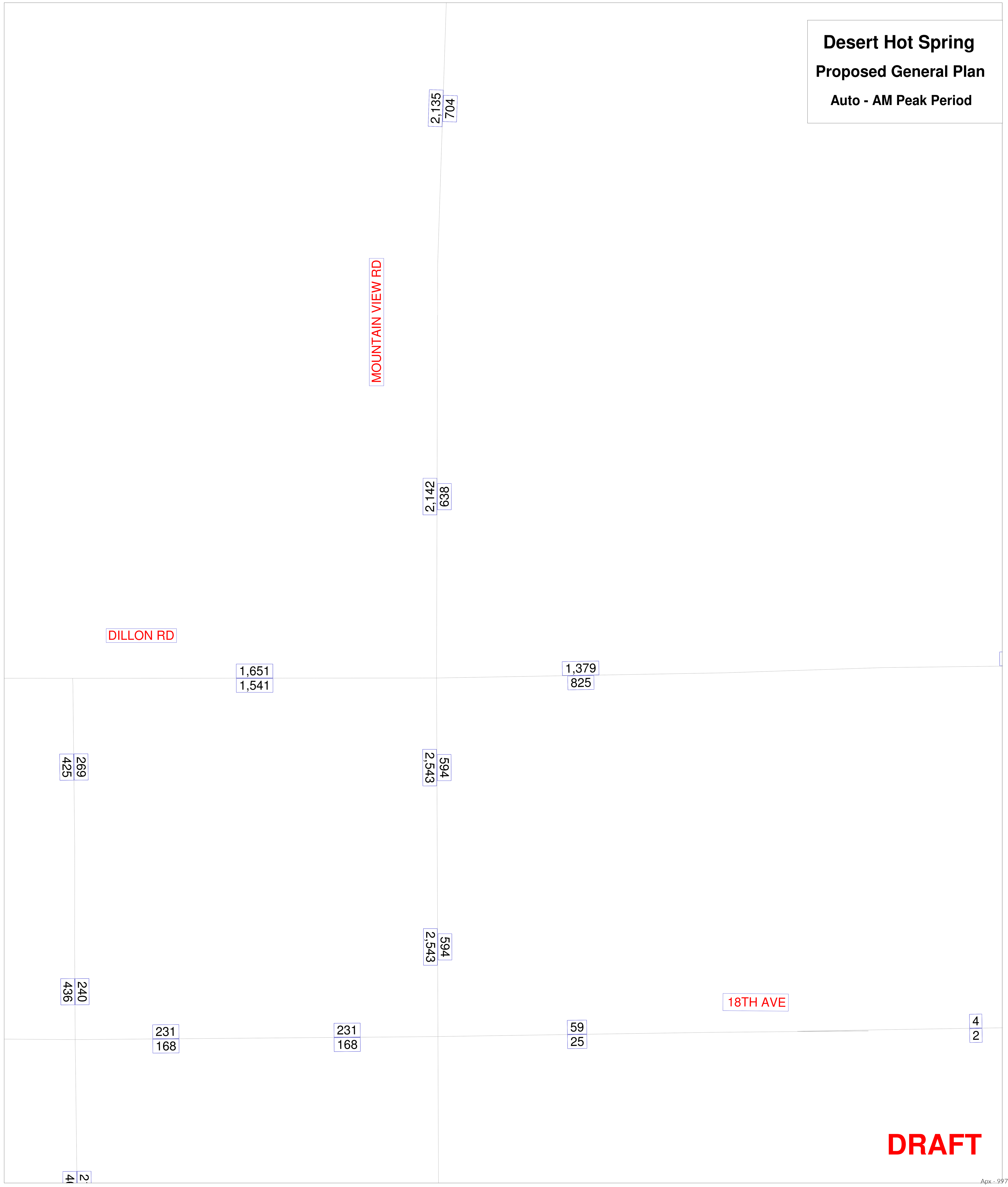
Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
DESERT VIEW AVE
1,360
2,856
HACIENDA AVE
2,091
1,155
3,377
1,759
742
1,557
MOUNTAIN VIEW RD
DRAFT

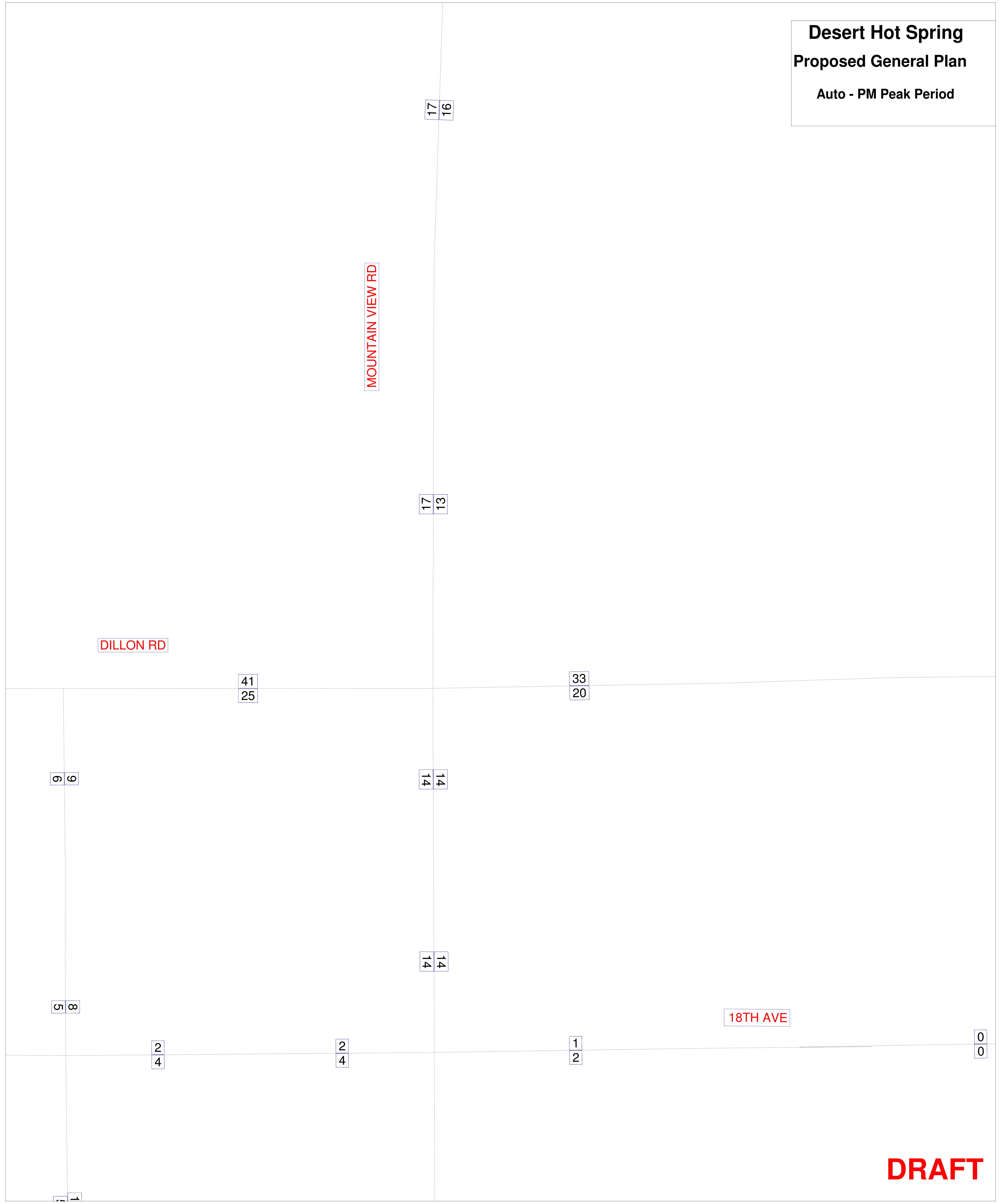


Desert Hot Spring
Proposed General Plan
Truck - PM Peak Period
DESERT VIEW AVE
17
27
HACIENDA AVE
12
7
33
20
5
5
MOUNTAIN VIEW RD
DRAFT


Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
DESERT VIEW AVE
HACIENDA AVE
MOUNTAIN VIEW RD
1,022
602
373
672
1,021
706
672
268
DRAFT


Desert Hot Spring
Proposed General Plan
Truck - AM Peak Period
DESERT VIEW AVE
HACIENDA AVE
MOUNTAIN VIEW RD
6
6
5
5
10
10
3
4
DRAFT


Desert Hot Spring
Proposed General Plan
Auto - AM Peak Period
MOUNTAIN VIEW RD
DILLON RD
18TH AVE
2,135
704
2,142
638
1,651
1,541
1,379
825
425
269
2,543
594
2,543
594
436
240
231
168
231
168
59
25
4
2
DRAFT


Desert Hot Spring
Proposed General Plan
Auto - PM Peak Period
MOUNTAIN VIEW RD
DILLON RD
18TH AVE
17
16
17
13
41
25
33
20
6
9
14
14
14
14
5
8
2
4
2
4
1
2
0
0
DRAFT

APPENDIX F

POST-PROCESSING WORKSHEETS

CURRENT GENERAL PLAN BUILDOUT

SR-62 (NS) / Indian Canyon Drive (EW) - #1

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 886 183
< v >
0 ^ ^ 125
1 > < 0
0 v v 0
< ^ >
0 394 5

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
1069 519
v ^
0 < IN = 1594 < 125
1 > OUT = 1594 > 189
v ^
886 399

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 886 183
< v >
0 ^ ^ 125
1 > < 0
0 v v 0
< ^ >
0 394 5

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
2292 1291
v ^
0 < IN = 3583 < 464
0 > OUT = 3582 > 1065
v ^
1226 827

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
115 110
v ^
0 < IN = 225 < 29
0 > OUT = 225 > 19
v ^
96 81

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 909 527
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 1436 < 186
0 > OUT = 1436 > 411
v ^
498 341

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
8071 1881
v ^
0 < IN = 9952 < 1018
0 > OUT = 9952 > 2434
v ^
5637 863

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
233 220
v ^
0 < IN = 453 < 84
0 > OUT = 452 > 38
v ^
194 136

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 3145 788
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 3933 < 415
0 > OUT = 3932 > 938
v ^
2207 373

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 2235 261
FACTOR = 1.00 v ^
0 < < 229
0 > > 527
v ^
1709 32

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 2240 260
v ^
0 < IN = 2500 < 230
0 > OUT = 2500 > 530
v ^
1710 30

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 1470 170
v ^
0 < < 150
0 > > 350
v ^
1120 20

NEW PROJECTED VOLUMES (PCEs): 2040
2540 690
v ^
0 < < 280
0 > > 540
v ^
2010 420

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 615 171
< v >
0 ^ ^ 346
0 > < 1
0 v v 2
< ^ >
0 759 6

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
787 1105
v ^
2 < IN = 1901 < 349
0 > OUT = 1901 > 177
v ^
617 765

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 615 171
< v >
0 ^ ^ 346
0 > < 1
0 v v 2
< ^ >
0 759 6

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
2139 3533
v ^
0 < IN = 5672 < 722
0 > OUT = 5671 > 1043
v ^
1095 2811

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
175 190
v ^
0 < IN = 365 < 13
0 > OUT = 364 > 45
v ^
129 177

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 643 1037
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 1679 < 205
0 > OUT = 1679 > 303
v ^
339 831

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
4995 12134
v ^
0 < IN = 17129 < 3572
0 > OUT = 17129 > 2868
v ^
2127 8562

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
349 426
v ^
0 < IN = 775 < 55
0 > OUT = 774 > 124
v ^
224 371

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 1486 3504
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 4990 < 1014
0 > OUT = 4990 > 834
v ^
652 2490

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 843 2467
FACTOR = 1.00 v ^
0 < < 809
0 > > 531
v ^
313 1659

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 840 2470
v ^
0 < IN = 3310 < 810
0 > OUT = 3310 > 530
v ^
310 1660

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 550 1620
v ^
0 < < 530
0 > > 350
v ^
200 1090

NEW PROJECTED VOLUMES (PCEs): 2040
1340 2730
v ^
0 < < 880
0 > > 530
v ^
820 1860

SR-62 (NS) / Indian Canyon Drive (EW) - #1

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**394**	IN ...	**420**	BOUND	THRU	**759**	IN ...	**1,860**
	RIGHT	**5**	OUT ...	**2,010**		RIGHT	**6**	OUT ...	**820**
SOUTH	LEFT	**183**	NORTH LEG		SOUTH	LEFT	**171**	NORTH LEG	
BOUND	THRU	**886**	IN ...	**2,540**	BOUND	THRU	**615**	IN ...	**1,340**
	RIGHT	**0**	OUT ...	**690**		RIGHT	**1**	OUT ...	**2,730**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**1**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**2**	EAST LEG	
BOUND	THRU	**0**	IN ...	**280**	BOUND	THRU	**1**	IN ...	**880**
	RIGHT	**125**	OUT ...	**540**		RIGHT	**346**	OUT ...	**530**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**394**	**433**	RATIO **9.0%**	BOUND	THRU	**759**	**1,848**	RATIO **11.2%**
	RIGHT	**5**	**7**	ADT 36,100		RIGHT	**6**	**23**	ADT 36,100
SOUTH	LEFT	**183**	**533**	SOUTH LEG	SOUTH	LEFT	**171**	**507**	SOUTH LEG
BOUND	THRU	**886**	**2,010**	RATIO **6.0%**	BOUND	THRU	**615**	**816**	RATIO **6.6%**
	RIGHT	**0**	**0**	ADT 40,500		RIGHT	**1**	**1**	ADT 40,500
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**1**	**1**	RATIO **1.7%**	BOUND	THRU	**0**	**0**	RATIO **2.9%**
	RIGHT	**0**	**0**	ADT 48,900		RIGHT	**0**	**0**	ADT 48,900
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**2**	**4**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **0.0%**	BOUND	THRU	**1**	**1**	RATIO **0.0%**
	RIGHT	**125**	**279**	ADT 29,700		RIGHT	**346**	**882**	ADT 29,700

SR-62 (NS) / Pierson Boulevard (East) (EW) - #2

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			0	0	0		
			<	v	>		
	0	^				^	5
	5	>				<	2
	0	v				v	0
			<	^	>		
			2	386	64		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019			0	391		
			v	^		
	4	<	IN =	464	<	7
	5	>	OUT =	464	>	69
			v	^		
			0	452		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			0	0	0		
			<	v	>		
	0	^				^	5
	5	>				<	2
	0	v				v	0
			<	^	>		
			2	386	64		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008			0	827		
			v	^		
	429	<	IN =	1687	<	371
	159	>	OUT =	1686	>	430
			v	^		
			0	1157		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008			0	81		
			v	^		
	22	<	IN =	122	<	20
	2	>	OUT =	122	>	19
			v	^		
			0	100		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38			0	341		
PHF FOR TRUCKS: 0.333			v	^		
	170	<	IN =	682	<	148
	61	>	OUT =	681	>	170
			v	^		
			0	473		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040			0	801		
			v	^		
	3279	<	IN =	5628	<	2738
	1170	>	OUT =	5629	>	1549
			v	^		
			0	1720		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040			0	135		
			v	^		
	56	<	IN =	217	<	46
	16	>	OUT =	217	>	26
			v	^		
			0	155		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38			0	349		
PHF FOR TRUCKS: 0.333			v	^		
	1265	<	IN =	2211	<	1056
	450	>	OUT =	2211	>	597
			v	^		
			0	705		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040			0	8		
FACTOR = 1.00			v	^		
	1094	<			<	908
	389	>			>	428
			v	^		
			0	232		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %			0	40		
			v	^		
	1090	<	IN =	1530	<	910
	390	>	OUT =	1560	>	430
			v	^		
			0	230		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS			0	30		
			v	^		
	720	<			<	600
	260	>			>	280
			v	^		
			0	150		

NEW PROJECTED VOLUMES (PCEs): 2040

			0	420		
			v	^		
	720	<			<	610
	270	>			>	350
			v	^		
			0	600		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			0	0	0		
			<	v	>		
	0	^				^	15
	3	>				<	4
	0	v				v	0
			<	^	>		
			8	780	90		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019			0	795		
			v	^		
	12	<	IN =	900	<	19
	3	>	OUT =	900	>	93
			v	^		
			0	878		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			0	0	0		
			<	v	>		
	0	^				^	15
	3	>				<	4
	0	v				v	0
			<	^	>		
			8	780	90		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008			0	2811		
			v	^		
	1339	<	IN =	5003	<	763
	224	>	OUT =	5003	>	853
			v	^		
			0	4016		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008			0	177		
			v	^		
	35	<	IN =	245	<	32
	2	>	OUT =	245	>	33
			v	^		
			0	211		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28			0	831		
PHF FOR TRUCKS: 0.25			v	^		
	384	<	IN =	1462	<	222
	63	>	OUT =	1462	>	247
			v	^		
			0	1177		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040			0	7833		
			v	^		
	5937	<	IN =	16990	<	3295
	1892	>	OUT =	16991	>	3221
			v	^		
			0	11803		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040			0	363		
			v	^		
	83	<	IN =	485	<	61
	23	>	OUT =	486	>	40
			v	^		
			0	401		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28			0	2284		
PHF FOR TRUCKS: 0.25			v	^		
	1683	<	IN =	4878	<	938
	536	>	OUT =	4879	>	912
			v	^		
			0	3405		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040			0	1453		
FACTOR = 1.00			v	^		
	1299	<			<	716
	472	>			>	665
			v	^		
			0	2228		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %			0	1450		
			v	^		
	1300	<	IN =	3420	<	720
	470	>	OUT =	3410	>	660
			v	^		
			0	2230		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS			0	950		
			v	^		
	850	<			<	470
	310	>			>	430
			v	^		
			0	1460		

NEW PROJECTED VOLUMES (PCEs): 2040

			0	1750		
			v	^		
	860	<			<	490
	310	>			>	520
			v	^		
			0	2340		

SR-62 (NS) / Pierson Boulevard (East) (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**8**	SOUTH LEG	
BOUND	THRU	**386**	IN ...	**600**	BOUND	THRU	**780**	IN ...	**2,340**
	RIGHT	**64**	OUT ...	**0**		RIGHT	**90**	OUT ...	**0**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**420**		RIGHT	**0**	OUT ...	**1,750**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**5**	IN ...	**270**	BOUND	THRU	**3**	IN ...	**310**
	RIGHT	**0**	OUT ...	**720**		RIGHT	**0**	OUT ...	**860**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**2**	IN ...	**610**	BOUND	THRU	**4**	IN ...	**490**
	RIGHT	**5**	OUT ...	**350**		RIGHT	**15**	OUT ...	**520**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**98**	NORTH LEG	NORTH	LEFT	**8**	**433**	NORTH LEG
BOUND	THRU	**386**	**425**	RATIO **1.3%**	BOUND	THRU	**780**	**1,686**	RATIO **5.1%**
	RIGHT	**64**	**103**	ADT 34,100		RIGHT	**90**	**215**	ADT 34,100
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **1.6%**	BOUND	THRU	**0**	**0**	RATIO **6.1%**
	RIGHT	**0**	**0**	ADT 38,100		RIGHT	**0**	**0**	ADT 38,100
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**5**	**247**	RATIO **8.3%**	BOUND	THRU	**3**	**305**	RATIO **8.4%**
	RIGHT	**0**	**0**	ADT 12,100		RIGHT	**0**	**0**	ADT 12,100
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**2**	**622**	RATIO **7.4%**	BOUND	THRU	**4**	**427**	RATIO **8.9%**
	RIGHT	**5**	**32**	ADT 13,100		RIGHT	**15**	**64**	ADT 13,100

SR-62 (NS) / Pierson Boulevard (West) (EW) - #2

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 2 876 10	2019 0 609 10
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
5 > < 2	3 > < 4
14 v v 77	4 v v 60
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 888 0	2019 619 0
v ^	v ^
4 < IN = 986 < 79	4 < IN = 690 < 64
19 > OUT = 986 > 15	7 > OUT = 690 > 13
v ^	v ^
967 0	673 0
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 2 876 10	2019 0 609 10
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
5 > < 2	3 > < 4
14 v v 77	4 v v 60
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1226 0	2008 1095 0
v ^	v ^
0 < IN = 1655 < 429	0 < IN = 2434 < 1339
0 > OUT = 1823 > 159	0 > OUT = 2116 > 224
v ^	v ^
1664 0	1892 0
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 96 0	2008 129 0
v ^	v ^
0 < IN = 118 < 22	0 < IN = 164 < 35
0 > OUT = 118 > 2	0 > OUT = 164 > 2
v ^	v ^
116 0	162 0
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 498 0	PHF FOR CARS: 0.28 339 0
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
0 < IN = 668 < 170	0 < IN = 723 < 384
0 > OUT = 732 > 61	0 > OUT = 633 > 63
v ^	v ^
671 0	570 0
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 5637 0	2040 2127 0
v ^	v ^
1575 < IN = 11437 < 3279	4378 < IN = 11304 < 5937
2521 > OUT = 11437 > 1170	3240 > OUT = 11305 > 1892
v ^	v ^
8692 0	5035 0
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 194 0	2040 224 0
v ^	v ^
26 < IN = 276 < 56	40 < IN = 347 < 83
26 > OUT = 276 > 16	40 > OUT = 346 > 23
v ^	v ^
234 0	283 0
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2207 0	PHF FOR CARS: 0.28 652 0
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
607 < IN = 4438 < 1265	1236 < IN = 3252 < 1683
967 > OUT = 4438 > 450	917 > OUT = 3252 > 536
v ^	v ^
3381 0	1481 0
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1709 0	CONVERSION OF TRUCKS TO: 2040 313 0
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
607 < < 1094	1236 < < 1299
967 > > 389	917 > > 472
v ^	v ^
2710 0	910 0
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1710 0	10 MINIMUM GROWTH % 310 0
v ^	v ^
610 < IN = 3770 < 1090	1240 < IN = 2530 < 1300
970 > OUT = 3710 > 390	920 > OUT = 2620 > 470
v ^	v ^
2710 0	910 0
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 1120 0	21 YEARS 200 0
v ^	v ^
400 < < 720	810 < < 850
640 > > 260	600 > > 310
v ^	v ^
1780 0	600 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
2010 0	820 0
v ^	v ^
400 < < 800	810 < < 910
660 > > 280	610 > > 320
v ^	v ^
2750 0	1270 0

SR-62 (NS) / Pierson Boulevard (West) (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**2,750**		RIGHT	**0**	OUT ...	**1,270**
SOUTH	LEFT	**10**	NORTH LEG		SOUTH	LEFT	**10**	NORTH LEG	
BOUND	THRU	**876**	IN ...	**2,010**	BOUND	THRU	**609**	IN ...	**820**
	RIGHT	**2**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**5**	IN ...	**660**	BOUND	THRU	**3**	IN ...	**610**
	RIGHT	**14**	OUT ...	**400**		RIGHT	**4**	OUT ...	**810**
WEST	LEFT	**77**	EAST LEG		WEST	LEFT	**60**	EAST LEG	
BOUND	THRU	**2**	IN ...	**800**	BOUND	THRU	**4**	IN ...	**910**
	RIGHT	**0**	OUT ...	**280**		RIGHT	**0**	OUT ...	**320**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **5.8%**	BOUND	THRU	**0**	**0**	RATIO **2.4%**
	RIGHT	**0**	**0**	ADT 34,300		RIGHT	**0**	**0**	ADT 34,300
SOUTH	LEFT	**10**	**35**	SOUTH LEG	SOUTH	LEFT	**10**	**18**	SOUTH LEG
BOUND	THRU	**876**	**1,852**	RATIO **6.8%**	BOUND	THRU	**609**	**806**	RATIO **3.2%**
	RIGHT	**2**	**100**	ADT 40,200		RIGHT	**0**	**0**	ADT 40,200
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**5**	**245**	RATIO **7.9%**	BOUND	THRU	**3**	**302**	RATIO **9.5%**
	RIGHT	**14**	**408**	ADT 13,600		RIGHT	**4**	**305**	ADT 13,600
WEST	LEFT	**77**	**490**	WEST LEG	WEST	LEFT	**60**	**159**	WEST LEG
BOUND	THRU	**2**	**300**	RATIO **7.0%**	BOUND	THRU	**4**	**810**	RATIO **9.4%**
	RIGHT	**0**	**0**	ADT 15,100		RIGHT	**0**	**0**	ADT 15,100

SR-62 (NS) / Dillon Road (EW) - #3

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
3 952 17
< v >
1 ^ ^ 6
6 > < 6
11 v v 73
< ^ >
9 448 45

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
972 455
v ^
18 < IN = 1577 < 85
18 > OUT = 1577 > 68
v ^
1036 502

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
3 952 17
< v >
1 ^ ^ 6
6 > < 6
11 v v 73
< ^ >
9 448 45

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1664 1157
v ^
0 < IN = 3099 < 221
0 > OUT = 3099 > 101
v ^
1841 1214

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
116 100
v ^
0 < IN = 242 < 21
0 > OUT = 242 > 5
v ^
137 105

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 671 473
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 1258 < 91
0 > OUT = 1258 > 40
v ^
745 496

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
8692 1720
v ^
0 < IN = 12238 < 1829
0 > OUT = 12241 > 1641
v ^
8880 1717

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
234 155
v ^
0 < IN = 512 < 132
0 > OUT = 512 > 22
v ^
335 146

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 3381 705
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 4821 < 739
0 > OUT = 4822 > 631
v ^
3486 701

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 2710 232
FACTOR = 1.00 v ^
0 < < 648
0 > > 591
v ^
2741 205

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 2710 230
v ^
0 < IN = 3560 < 650
0 > OUT = 3560 > 590
v ^
2740 200

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 1780 150
v ^
0 < < 430
0 > > 390
v ^
1800 130

NEW PROJECTED VOLUMES (PCEs): 2040
2750 610
v ^
20 < < 520
20 > > 460
v ^
2840 630

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
2 655 8
< v >
2 ^ ^ 28
4 > < 4
14 v v 62
< ^ >
7 858 100

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
665 888
v ^
13 < IN = 1744 < 94
20 > OUT = 1744 > 112
v ^
731 965

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
2 655 8
< v >
2 ^ ^ 28
4 > < 4
14 v v 62
< ^ >
7 858 100

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1892 4016
v ^
0 < IN = 6880 < 764
0 > OUT = 6880 > 477
v ^
2387 4224

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
162 211
v ^
0 < IN = 439 < 35
0 > OUT = 440 > 33
v ^
196 242

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 570 1177
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 2036 < 223
0 > OUT = 2036 > 142
v ^
717 1243

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
5035 11803
v ^
0 < IN = 19208 < 5463
0 > OUT = 19207 > 1318
v ^
6086 8710

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
283 401
v ^
0 < IN = 886 < 364
0 > OUT = 886 > 35
v ^
450 239

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 1481 3405
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 5600 < 1621
0 > OUT = 5599 > 378
v ^
1817 2499

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 910 2228
FACTOR = 1.00 v ^
0 < < 1398
0 > > 236
v ^
1099 1255

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 910 2230
v ^
0 < IN = 3570 < 1400
0 > OUT = 3570 > 240
v ^
1100 1260

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 600 1460
v ^
0 < < 920
0 > > 160
v ^
720 830

NEW PROJECTED VOLUMES (PCEs): 2040
1270 2350
v ^
10 < < 1010
20 > > 270
v ^
1450 1800

SR-62 (NS) / Dillon Road (EW) - #3

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**9**	SOUTH LEG		NORTH	LEFT	**7**	SOUTH LEG	
BOUND	THRU	**448**	IN ...	**630**	BOUND	THRU	**858**	IN ...	**1,800**
	RIGHT	**45**	OUT ...	**2,840**		RIGHT	**100**	OUT ...	**1,450**
SOUTH	LEFT	**17**	NORTH LEG		SOUTH	LEFT	**8**	NORTH LEG	
BOUND	THRU	**952**	IN ...	**2,750**	BOUND	THRU	**655**	IN ...	**1,270**
	RIGHT	**3**	OUT ...	**610**		RIGHT	**2**	OUT ...	**2,350**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**6**	IN ...	**20**	BOUND	THRU	**4**	IN ...	**20**
	RIGHT	**11**	OUT ...	**20**		RIGHT	**14**	OUT ...	**10**
WEST	LEFT	**73**	EAST LEG		WEST	LEFT	**62**	EAST LEG	
BOUND	THRU	**6**	IN ...	**520**	BOUND	THRU	**4**	IN ...	**1,010**
	RIGHT	**6**	OUT ...	**460**		RIGHT	**28**	OUT ...	**270**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**9**	**10**	NORTH LEG	NORTH	LEFT	**7**	**8**	NORTH LEG
BOUND	THRU	**448**	**516**	RATIO **16.2%**	BOUND	THRU	**858**	**1,644**	RATIO **17.2%**
	RIGHT	**45**	**136**	ADT 20,700		RIGHT	**100**	**190**	ADT 20,700
SOUTH	LEFT	**17**	**309**	SOUTH LEG	SOUTH	LEFT	**8**	**71**	SOUTH LEG
BOUND	THRU	**952**	**2,423**	RATIO **18.2%**	BOUND	THRU	**655**	**1,143**	RATIO **17.1%**
	RIGHT	**3**	**3**	ADT 19,300		RIGHT	**2**	**2**	ADT 19,300
EAST	LEFT	**1**	**1**	EAST LEG	EAST	LEFT	**2**	**5**	EAST LEG
BOUND	THRU	**6**	**15**	RATIO **1.9%**	BOUND	THRU	**4**	**9**	RATIO **2.5%**
	RIGHT	**11**	**12**	ADT 51,100		RIGHT	**14**	**15**	ADT 51,100
WEST	LEFT	**73**	**413**	WEST LEG	WEST	LEFT	**62**	**301**	WEST LEG
BOUND	THRU	**6**	**15**	RATIO **0.1%**	BOUND	THRU	**4**	**8**	RATIO **0.1%**
	RIGHT	**6**	**93**	ADT 42,700		RIGHT	**28**	**701**	ADT 42,700

Indian Canyon Drive (NS) / Mission Lakes Boulevard (EW) - #4

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 0 139 48 < v > 0 ^ ^ 53 0 > < 0 0 v v 186 < ^ > 0 74 63	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 0 122 56 < v > 0 ^ ^ 74 0 > < 0 0 v v 81 < ^ > 0 247 162
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 187 127 v ^ 0 < IN = 563 < 239 0 > OUT = 563 > 111 v ^ 325 137	EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 178 321 v ^ 0 < IN = 742 < 155 0 > OUT = 742 > 218 v ^ 203 409
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 0 0 0	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 0 139 48 < v > 0 ^ ^ 53 0 > < 0 0 v v 186 < ^ > 0 74 63	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 0 122 56 < v > 0 ^ ^ 74 0 > < 0 0 v v 81 < ^ > 0 247 162
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 1058 458 v ^ 0 < IN = 2504 < 606 0 > OUT = 2377 > 486 v ^ 1433 840	EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 1032 522 v ^ 0 < IN = 3862 < 1033 0 > OUT = 3886 > 1714 v ^ 1650 1797
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 19 29 v ^ 0 < IN = 62 < 8 0 > OUT = 63 > 12 v ^ 22 35	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 45 10 v ^ 0 < IN = 80 < 18 0 > OUT = 80 > 19 v ^ 51 17
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 408 184 PHF FOR TRUCKS: 0.333 v ^ 0 < IN = 972 < 233 0 > OUT = 924 > 189 v ^ 552 331	EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 300 149 PHF FOR TRUCKS: 0.25 v ^ 0 < IN = 1101 < 294 0 > OUT = 1108 > 485 v ^ 475 507
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 2281 1018 v ^ 1596 < IN = 6573 < 1381 1423 > OUT = 6573 > 1593 v ^ 2366 1488	FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 2742 3572 v ^ 2729 < IN = 12433 < 3386 2534 > OUT = 12433 > 3109 v ^ 3023 3771
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 37 84 v ^ 21 < IN = 159 < 21 13 > OUT = 158 > 26 v ^ 27 88	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 122 55 v ^ 26 < IN = 232 < 47 24 > OUT = 232 > 63 v ^ 88 39
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 879 415 PHF FOR TRUCKS: 0.333 v ^ 613 < IN = 2551 < 532 545 > OUT = 2550 > 614 v ^ 908 595	FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 798 1014 PHF FOR TRUCKS: 0.25 v ^ 771 < IN = 3539 < 960 716 > OUT = 3539 > 886 v ^ 868 1066
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 471 231 FACTOR = 1.00 v ^ 613 < < 299 545 > > 425 v ^ 356 264	RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 498 865 FACTOR = 1.00 v ^ 771 < < 666 716 > > 402 v ^ 394 558
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 470 230 v ^ 610 < IN = 1580 < 300 550 > OUT = 1630 > 430 v ^ 360 260	ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 500 870 v ^ 770 < IN = 2450 < 670 720 > OUT = 2430 > 400 v ^ 390 560
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 310 150 v ^ 400 < < 200 360 > > 280 v ^ 240 170	PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 330 570 v ^ 510 < < 440 470 > > 260 v ^ 260 370
NEW PROJECTED VOLUMES (PCEs): 2040 500 280 v ^ 400 < < 440 360 > > 390 v ^ 570 310	NEW PROJECTED VOLUMES (PCEs): 2040 510 890 v ^ 510 < < 600 470 > > 480 v ^ 460 780

Indian Canyon Drive (NS) / Mission Lakes Boulevard (EW) - #4

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**74**	IN ...	**310**	BOUND	THRU	**247**	IN ...	**780**
	RIGHT	**63**	OUT ...	**570**		RIGHT	**162**	OUT ...	**460**
SOUTH	LEFT	**48**	NORTH LEG		SOUTH	LEFT	**56**	NORTH LEG	
BOUND	THRU	**139**	IN ...	**500**	BOUND	THRU	**122**	IN ...	**510**
	RIGHT	**0**	OUT ...	**280**		RIGHT	**0**	OUT ...	**890**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**360**	BOUND	THRU	**0**	IN ...	**470**
	RIGHT	**0**	OUT ...	**400**		RIGHT	**0**	OUT ...	**510**
WEST	LEFT	**186**	EAST LEG		WEST	LEFT	**81**	EAST LEG	
BOUND	THRU	**0**	IN ...	**440**	BOUND	THRU	**0**	IN ...	**600**
	RIGHT	**53**	OUT ...	**390**		RIGHT	**74**	OUT ...	**480**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**74**	**140**	RATIO **4.2%**	BOUND	THRU	**247**	**498**	RATIO **7.5%**
	RIGHT	**63**	**168**	ADT 18,400		RIGHT	**162**	**257**	ADT 18,400
SOUTH	LEFT	**48**	**222**	SOUTH LEG	SOUTH	LEFT	**56**	**223**	SOUTH LEG
BOUND	THRU	**139**	**274**	RATIO **10.0%**	BOUND	THRU	**122**	**271**	RATIO **13.8%**
	RIGHT	**0**	**0**	ADT 8,800		RIGHT	**0**	**0**	ADT 8,800
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **2.1%**	BOUND	THRU	**0**	**0**	RATIO **2.7%**
	RIGHT	**0**	**0**	ADT 38,600		RIGHT	**0**	**0**	ADT 38,600
WEST	LEFT	**186**	**296**	WEST LEG	WEST	LEFT	**81**	**189**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**53**	**140**	ADT 50,600		RIGHT	**74**	**392**	ADT 50,600

Indian Canyon Drive (NS) / Pierson Boulevard (EW) - #5

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
21 247 54
< v >
18 ^ ^ 15
88 > < 41
36 v v 156
< ^ >
9 116 86

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
322 149
v ^
71 < IN = 887 < 212
142 > OUT = 887 > 228
v ^
439 211

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
21 247 54
< v >
18 ^ ^ 15
88 > < 41
36 v v 156
< ^ >
9 116 86

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1433 840
v ^
393 < IN = 3051 < 541
371 > OUT = 3051 > 403
v ^
1415 706

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
22 35
v ^
20 < IN = 86 < 18
18 > OUT = 87 > 14
v ^
18 28

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 552 331
PHF FOR TRUCKS: 0.333 v ^
156 < IN = 1188 < 212
147 > OUT = 1188 > 158
v ^
544 278

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2366 1488
v ^
1818 < IN = 7407 < 1472
1628 > OUT = 7407 > 807
v ^
3294 1941

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
27 88
v ^
27 < IN = 156 < 18
15 > OUT = 157 > 16
v ^
26 96

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 908 595
PHF FOR TRUCKS: 0.333 v ^
700 < IN = 2867 < 565
624 > OUT = 2867 > 312
v ^
1260 770

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 356 264
FACTOR = 1.00 v ^
544 < < 354
477 > > 154
v ^
717 492

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 360 260
v ^
540 < IN = 1680 < 350
480 > OUT = 1670 > 150
v ^
720 490

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 240 170
v ^
350 < < 230
320 > > 100
v ^
470 320

NEW PROJECTED VOLUMES (PCEs): 2040
560 320
v ^
420 < < 440
460 > > 330
v ^
910 530

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
12 155 36
< v >
33 ^ ^ 43
73 > < 76
20 v v 90
< ^ >
31 335 118

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
203 411
v ^
119 < IN = 1022 < 209
126 > OUT = 1022 > 227
v ^
265 484

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
12 155 36
< v >
33 ^ ^ 43
73 > < 76
20 v v 90
< ^ >
31 335 118

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1650 1797
v ^
753 < IN = 5352 < 898
759 > OUT = 5352 > 1149
v ^
1653 2045

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
51 17
v ^
31 < IN = 120 < 26
32 > OUT = 120 > 28
v ^
44 11

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 475 507
PHF FOR TRUCKS: 0.25 v ^
219 < IN = 1529 < 258
221 > OUT = 1529 > 329
v ^
474 575

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
3023 3771
v ^
2707 < IN = 12359 < 2361
2702 > OUT = 12360 > 2259
v ^
3623 4273

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
88 39
v ^
36 < IN = 195 < 33
33 > OUT = 195 > 25
v ^
95 41

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 868 1066
PHF FOR TRUCKS: 0.25 v ^
767 < IN = 3509 < 669
765 > OUT = 3510 > 639
v ^
1038 1207

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 394 558
FACTOR = 1.00 v ^
548 < < 411
544 > > 310
v ^
564 631

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 390 560
v ^
550 < IN = 1970 < 410
540 > OUT = 1980 > 310
v ^
560 630

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 260 370
v ^
360 < < 270
350 > > 200
v ^
370 410

NEW PROJECTED VOLUMES (PCEs): 2040
460 780
v ^
480 < < 480
480 > > 430
v ^
640 890

Indian Canyon Drive (NS) / Pierson Boulevard (EW) - #5

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**9**	SOUTH LEG		NORTH	LEFT	**31**	SOUTH LEG	
BOUND	THRU	**116**	IN ...	**530**	BOUND	THRU	**335**	IN ...	**890**
	RIGHT	**86**	OUT ...	**910**		RIGHT	**118**	OUT ...	**640**
SOUTH	LEFT	**54**	NORTH LEG		SOUTH	LEFT	**36**	NORTH LEG	
BOUND	THRU	**247**	IN ...	**560**	BOUND	THRU	**155**	IN ...	**460**
	RIGHT	**21**	OUT ...	**320**		RIGHT	**12**	OUT ...	**780**
EAST	LEFT	**18**	WEST LEG		EAST	LEFT	**33**	WEST LEG	
BOUND	THRU	**88**	IN ...	**460**	BOUND	THRU	**73**	IN ...	**480**
	RIGHT	**36**	OUT ...	**420**		RIGHT	**20**	OUT ...	**480**
WEST	LEFT	**156**	EAST LEG		WEST	LEFT	**90**	EAST LEG	
BOUND	THRU	**41**	IN ...	**440**	BOUND	THRU	**76**	IN ...	**480**
	RIGHT	**15**	OUT ...	**330**		RIGHT	**43**	OUT ...	**430**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**9**	**134**	NORTH LEG	NORTH	LEFT	**31**	**153**	NORTH LEG
BOUND	THRU	**116**	**259**	RATIO **10.7%**	BOUND	THRU	**335**	**588**	RATIO **14.5%**
	RIGHT	**86**	**132**	ADT 8,600		RIGHT	**118**	**156**	ADT 8,600
SOUTH	LEFT	**54**	**59**	SOUTH LEG	SOUTH	LEFT	**36**	**45**	SOUTH LEG
BOUND	THRU	**247**	**428**	RATIO **12.3%**	BOUND	THRU	**155**	**363**	RATIO **13.1%**
	RIGHT	**21**	**103**	ADT 11,700		RIGHT	**12**	**56**	ADT 11,700
EAST	LEFT	**18**	**51**	EAST LEG	EAST	LEFT	**33**	**138**	EAST LEG
BOUND	THRU	**88**	**170**	RATIO **2.1%**	BOUND	THRU	**73**	**229**	RATIO **2.4%**
	RIGHT	**36**	**237**	ADT 38,100		RIGHT	**20**	**117**	ADT 38,100
WEST	LEFT	**156**	**245**	WEST LEG	WEST	LEFT	**90**	**160**	WEST LEG
BOUND	THRU	**41**	**183**	RATIO **2.1%**	BOUND	THRU	**76**	**271**	RATIO **2.4%**
	RIGHT	**15**	**17**	ADT 40,900		RIGHT	**43**	**54**	ADT 40,900

Indian Canyon Drive (NS) / 14th Avenue (EW) - #6

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 457 1
< v >
0 ^ ^ 1
0 > < 0
0 v v 1
< ^ >
0 197 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
458 198
v ^
0 < IN = 658 < 2
0 > OUT = 658 > 2
v ^
458 198

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 457 1
< v >
0 ^ ^ 1
0 > < 0
0 v v 1
< ^ >
0 197 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1473 727
v ^
0 < IN = 2200 < 0
0 > OUT = 2200 > 0
v ^
1473 727

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
18 29
v ^
0 < IN = 47 < 0
0 > OUT = 47 > 0
v ^
18 29

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
566 286
v ^
0 < IN = 852 < 0
0 > OUT = 852 > 0
v ^
566 286

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
3245 1940
v ^
0 < IN = 5428 < 246
0 > OUT = 5428 > 411
v ^
3077 1937

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
28 104
v ^
0 < IN = 136 < 7
0 > OUT = 135 > 6
v ^
25 101

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
1242 772
v ^
0 < IN = 2108 < 96
0 > OUT = 2108 > 158
v ^
1178 770

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
677 486
v ^
0 < < 96
0 > > 158
v ^
612 484

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
680 490
v ^
0 < IN = 1260 < 100
0 > OUT = 1260 > 160
v ^
610 480

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
450 320
v ^
0 < < 70
0 > > 110
v ^
400 320

NEW PROJECTED VOLUMES (PCEs): 2040
910 520
v ^
0 < < 70
0 > > 110
v ^
860 520

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 255 1
< v >
0 ^ ^ 1
0 > < 0
0 v v 1
< ^ >
0 525 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
256 526
v ^
0 < IN = 784 < 2
0 > OUT = 784 > 2
v ^
256 526

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 255 1
< v >
0 ^ ^ 1
0 > < 0
0 v v 1
< ^ >
0 525 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1714 2173
v ^
0 < IN = 3887 < 0
0 > OUT = 3887 > 0
v ^
1714 2173

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
45 12
v ^
0 < IN = 57 < 0
0 > OUT = 57 > 0
v ^
45 12

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
491 611
v ^
0 < IN = 1103 < 0
0 > OUT = 1103 > 0
v ^
491 611

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
3466 4526
v ^
0 < IN = 8441 < 610
0 > OUT = 8441 > 453
v ^
3462 4365

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
95 36
v ^
0 < IN = 137 < 10
0 > OUT = 136 > 10
v ^
90 32

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
994 1276
v ^
0 < IN = 2398 < 173
0 > OUT = 2397 > 129
v ^
992 1230

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
503 665
v ^
0 < < 173
0 > > 129
v ^
501 619

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
500 660
v ^
0 < IN = 1290 < 170
0 > OUT = 1290 > 130
v ^
500 620

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
330 430
v ^
0 < < 110
0 > > 90
v ^
330 410

NEW PROJECTED VOLUMES (PCEs): 2040
590 960
v ^
0 < < 110
0 > > 90
v ^
590 940

Indian Canyon Drive (NS) / 14th Avenue (EW) - #6

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**197**	IN ...	**520**	BOUND	THRU	**525**	IN ...	**940**
	RIGHT	**1**	OUT ...	**860**		RIGHT	**1**	OUT ...	**590**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**457**	IN ...	**910**	BOUND	THRU	**255**	IN ...	**590**
	RIGHT	**0**	OUT ...	**520**		RIGHT	**0**	OUT ...	**960**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST	LEFT	**1**	EAST LEG		WEST	LEFT	**1**	EAST LEG	
BOUND	THRU	**0**	IN ...	**70**	BOUND	THRU	**0**	IN ...	**110**
	RIGHT	**1**	OUT ...	**110**		RIGHT	**1**	OUT ...	**90**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**197**	**478**	RATIO **3.6%**	BOUND	THRU	**525**	**903**	RATIO **4.0%**
	RIGHT	**1**	**52**	ADT 39,000		RIGHT	**1**	**39**	ADT 39,000
SOUTH	LEFT	**1**	**58**	SOUTH LEG	SOUTH	LEFT	**1**	**51**	SOUTH LEG
BOUND	THRU	**457**	**832**	RATIO **3.0%**	BOUND	THRU	**255**	**537**	RATIO **3.3%**
	RIGHT	**0**	**0**	ADT 45,900		RIGHT	**0**	**0**	ADT 45,900
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **0.6%**	BOUND	THRU	**0**	**0**	RATIO **0.7%**
	RIGHT	**0**	**0**	ADT 28,300		RIGHT	**0**	**0**	ADT 28,300
WEST	LEFT	**1**	**28**	WEST LEG	WEST	LEFT	**1**	**53**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**1**	**42**	ADT 26,400		RIGHT	**1**	**57**	ADT 26,400

Indian Canyon Drive (NS) / Dillon Road (EW) - #7

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

MORNING PEAK HOUR

2019			7	424	25		
			<	v	>		
	1	^				^	18
	64	>				<	72
	38	v				v	359
			<	^	>		
			12	180	128		

EVENING PEAK HOUR

2019			7	232	27		
			<	v	>		
	7	^				^	49
	95	>				<	70
	15	v				v	176
			<	^	>		
			22	476	294		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

MORNING PEAK HOUR

2019				456	199		
				v	^		
	91	<	IN =		1328	<	449
	103	>	OUT =		1328	>	217
				v	^		
				821	320		

EVENING PEAK HOUR

2019				266	532		
				v	^		
	99	<	IN =		1470	<	295
	117	>	OUT =		1470	>	416
				v	^		
				423	792		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

MORNING PEAK HOUR

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		

EVENING PEAK HOUR

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

MORNING PEAK HOUR

2019			7	424	25		
			<	v	>		
	1	^				^	18
	64	>				<	72
	38	v				v	359
			<	^	>		
			12	180	128		

EVENING PEAK HOUR

2019			7	232	27		
			<	v	>		
	7	^				^	49
	95	>				<	70
	15	v				v	176
			<	^	>		
			22	476	294		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR

2008				1552	762		
				v	^		
	326	<	IN =		3311	<	562
	47	>	OUT =		3310	>	431
				v	^		
				1791	1150		

EVENING PEAK HOUR

2008				1786	2319		
				v	^		
	608	<	IN =		6077	<	931
	580	>	OUT =		6078	>	1037
				v	^		
				2114	2780		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR

2008				20	31		
				v	^		
	17	<	IN =		88	<	19
	1	>	OUT =		87	>	18
				v	^		
				21	48		

EVENING PEAK HOUR

2008				48	15		
				v	^		
	27	<	IN =		119	<	29
	27	>	OUT =		118	>	27
				v	^		
				49	15		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38				596	300		
PHF FOR TRUCKS: 0.333				v	^		
	130	<	IN =		1287	<	220
	18	>	OUT =		1287	>	170
				v	^		
				688	453		

EVENING PEAK HOUR

PHF FOR CARS: 0.28				512	653		
PHF FOR TRUCKS: 0.25				v	^		
	177	<	IN =		1731	<	268
	169	>	OUT =		1731	>	297
				v	^		
				604	782		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR

2040				4686	2422		
				v	^		
	2241	<	IN =		10549	<	2294
	1072	>	OUT =		10549	>	1449
				v	^		
				4437	2497		

EVENING PEAK HOUR

2040				4492	7021		
				v	^		
	2599	<	IN =		16745	<	3299
	2130	>	OUT =		16745	>	2590
				v	^		
				4535	6824		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR

2040				58	138		
				v	^		
	98	<	IN =		358	<	82
	73	>	OUT =		358	>	69
				v	^		
				53	145		

EVENING PEAK HOUR

2040				149	88		
				v	^		
	162	<	IN =		468	<	130
	75	>	OUT =		468	>	82
				v	^		
				136	114		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38				1800	966		
PHF FOR TRUCKS: 0.333				v	^		
	884	<	IN =		4128	<	899
	432	>	OUT =		4128	>	574
				v	^		
				1704	997		

EVENING PEAK HOUR

PHF FOR CARS: 0.28				1295	1988		
PHF FOR TRUCKS: 0.25				v	^		
	768	<	IN =		4806	<	956
	615	>	OUT =		4806	>	746
				v	^		
				1304	1939		

RAW GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040				1204	666		
FACTOR = 1.00				v	^		
	755	<				<	679
	413	>				>	404
				v	^		
				1016	544		

EVENING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040				783	1335		
FACTOR = 1.00				v	^		
	591	<				<	688
	446	>				>	449
				v	^		
				700	1157		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

10 MINIMUM GROWTH %				1200	670		
				v	^		
	750	<	IN =		2830	<	680
	410	>	OUT =		2840	>	400
				v	^		
				1020	540		

EVENING PEAK HOUR

10 MINIMUM GROWTH %				780	1330		
				v	^		
	590	<	IN =		3080	<	690
	450	>	OUT =		3070	>	450
				v	^		
				700	1160		

PRORATED GROWTH (PCEs): 2019 TO 2040

MORNING PEAK HOUR

21 YEARS				790	440		
				v	^		
	490	<				<	450
	270	>				>	260
				v	^		
				670	350		

EVENING PEAK HOUR

21 YEARS				510	870		
				v	^		
	390	<				<	450
	300	>				>	300
				v	^		
				460	760		

NEW PROJECTED VOLUMES (PCEs): 2040

MORNING PEAK HOUR

				1250	640		
				v	^		
	580	<				<	900
	370	>				>	480
				v	^		
				1490	670		

EVENING PEAK HOUR

				780	1400		
				v	^		
	490	<				<	750
	420	>				>	720
				v	^		
				880	1550		

Indian Canyon Drive (NS) / Dillon Road (EW) - #7

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**12**	SOUTH LEG		NORTH	LEFT	**22**	SOUTH LEG	
BOUND	THRU	**180**	IN ...	**670**	BOUND	THRU	**476**	IN ...	**1,550**
	RIGHT	**128**	OUT ...	**1,490**		RIGHT	**294**	OUT ...	**880**
SOUTH	LEFT	**25**	NORTH LEG		SOUTH	LEFT	**27**	NORTH LEG	
BOUND	THRU	**424**	IN ...	**1,250**	BOUND	THRU	**232**	IN ...	**780**
	RIGHT	**7**	OUT ...	**640**		RIGHT	**7**	OUT ...	**1,400**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**7**	WEST LEG	
BOUND	THRU	**64**	IN ...	**370**	BOUND	THRU	**95**	IN ...	**420**
	RIGHT	**38**	OUT ...	**580**		RIGHT	**15**	OUT ...	**490**
WEST	LEFT	**359**	EAST LEG		WEST	LEFT	**176**	EAST LEG	
BOUND	THRU	**72**	IN ...	**900**	BOUND	THRU	**70**	IN ...	**750**
	RIGHT	**18**	OUT ...	**480**		RIGHT	**49**	OUT ...	**720**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**12**	**40**	NORTH LEG	NORTH	LEFT	**22**	**74**	NORTH LEG
BOUND	THRU	**180**	**529**	RATIO **4.0%**	BOUND	THRU	**476**	**1,169**	RATIO **4.6%**
	RIGHT	**128**	**141**	ADT 47,300		RIGHT	**294**	**323**	ADT 47,300
SOUTH	LEFT	**25**	**101**	SOUTH LEG	SOUTH	LEFT	**27**	**87**	SOUTH LEG
BOUND	THRU	**424**	**1,034**	RATIO **4.8%**	BOUND	THRU	**232**	**613**	RATIO **5.2%**
	RIGHT	**7**	**103**	ADT 46,800		RIGHT	**7**	**71**	ADT 46,800
EAST	LEFT	**1**	**13**	EAST LEG	EAST	LEFT	**7**	**55**	EAST LEG
BOUND	THRU	**64**	**263**	RATIO **6.5%**	BOUND	THRU	**95**	**323**	RATIO **6.7%**
	RIGHT	**38**	**95**	ADT 22,200		RIGHT	**15**	**42**	ADT 22,200
WEST	LEFT	**359**	**395**	WEST LEG	WEST	LEFT	**176**	**225**	WEST LEG
BOUND	THRU	**72**	**437**	RATIO **5.7%**	BOUND	THRU	**70**	**345**	RATIO **5.4%**
	RIGHT	**18**	**97**	ADT 16,800		RIGHT	**49**	**176**	ADT 16,800

Indian Canyon Drive (NS) / 20th Avenue (EW) - #8

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):							
2019			21	794	3		
			<	v	>		
	23	^				^	111
	0	>				<	32
	68	v				v	263
			<	^	>		
			22	239	4		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):							
2019				818	373		
				v	^		
	75	<		IN =	1580	<	406
	91	>		OUT =	1580	>	7
				v	^		
				1125	265		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):							
			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):							
2019			21	794	3		
			<	v	>		
	23	^				^	111
	0	>				<	32
	68	v				v	263
			<	^	>		
			22	239	4		
EXISTING PEAK PERIOD MODEL YEAR (AUTO):							
2008				1964	1374		
				v	^		
	83	<		IN =	3802	<	161
	150	>		OUT =	3802	>	73
				v	^		
				2272	1527		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2008				27	53		
				v	^		
	0	<		IN =	87	<	3
	1	>		OUT =	87	>	3
				v	^		
				31	56		
EXISTING PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				755	540		
PHF FOR TRUCKS: 0.333				v	^		
	32	<		IN =	1474	<	62
	57	>		OUT =	1474	>	29
				v	^		
				874	599		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):							
2040				8318	4892		
				v	^		
	527	<		IN =	14206	<	2242
	508	>		OUT =	14206	>	953
				v	^		
				7834	3138		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2040				92	193		
				v	^		
	0	<		IN =	393	<	25
	41	>		OUT =	393	>	31
				v	^		
				169	235		
FUTURE PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				3191	1923		
PHF FOR TRUCKS: 0.333				v	^		
	200	<		IN =	5529	<	860
	207	>		OUT =	5529	>	372
				v	^		
				3033	1271		
RAW GROWTH (PCEs): 2008 TO 2040							
CONVERSION OF TRUCKS TO: 2040				2436	1383		
FACTOR = 1.00				v	^		
	169	<				<	798
	149	>				>	344
				v	^		
				2160	672		
ADJUSTED GROWTH (PCEs): 2008 TO 2040							
10 MINIMUM GROWTH %				2440	1380		
				v	^		
	170	<		IN =	4060	<	800
	150	>		OUT =	4050	>	340
				v	^		
				2160	670		
PRORATED GROWTH (PCEs): 2019 TO 2040							
21 YEARS				1600	910		
				v	^		
	110	<				<	530
	100	>				>	220
				v	^		
				1420	440		
NEW PROJECTED VOLUMES (PCEs): 2040							
				2420	1280		
				v	^		
	190	<				<	940
	190	>				>	230
				v	^		
				2550	710		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):							
2019			18	410	5		
			<	v	>		
	22	^				^	238
	1	>				<	27
	67	v				v	218
			<	^	>		
			42	586	6		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):							
2019				433	846		
				v	^		
	87	<		IN =	1640	<	483
	90	>		OUT =	1640	>	12
				v	^		
				695	634		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):							
			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):							
2019			18	410	5		
			<	v	>		
	22	^				^	238
	1	>				<	27
	67	v				v	218
			<	^	>		
			42	586	6		
EXISTING PEAK PERIOD MODEL YEAR (AUTO):							
2008				2549	3521		
				v	^		
	238	<		IN =	8189	<	176
	132	>		OUT =	8189	>	1583
				v	^		
				2847	5332		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2008				58	26		
				v	^		
	2	<		IN =	103	<	5
	1	>		OUT =	102	>	11
				v	^		
				63	39		
EXISTING PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.28				728	992		
PHF FOR TRUCKS: 0.25				v	^		
	67	<		IN =	2319	<	51
	37	>		OUT =	2318	>	446
				v	^		
				813	1503		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):							
2040				6163	8108		
				v	^		
	1567	<		IN =	23574	<	2060
	3541	>		OUT =	23574	>	4941
				v	^		
				8958	11810		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2040				196	191		
				v	^		
	123	<		IN =	614	<	84
	33	>		OUT =	614	>	74
				v	^		
				226	301		
FUTURE PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.28				1775	2318		
PHF FOR TRUCKS: 0.25				v	^		
	470	<		IN =	6754	<	598
	1000	>		OUT =	6754	>	1402
				v	^		
				2565	3382		
RAW GROWTH (PCEs): 2008 TO 2040							
CONVERSION OF TRUCKS TO: 2040				1046	1326		
FACTOR = 1.00				v	^		
	402	<				<	547
	963	>				>	956
				v	^		
				1752	1879		
ADJUSTED GROWTH (PCEs): 2008 TO 2040							
10 MINIMUM GROWTH %				1050	1330		
				v	^		
	400	<		IN =	4440	<	550
	960	>		OUT =	4440	>	960
				v	^		
				1750	1880		
PRORATED GROWTH (PCEs): 2019 TO 2040							
21 YEARS				690	870		
				v	^		
	260	<				<	360
	630	>				>	630
				v	^		
				1150	1230		
NEW PROJECTED VOLUMES (PCEs): 2040							
				1120	1720		
				v	^		
	350	<				<	840
	720	>				>	640
				v	^		
				1850	1860		

Indian Canyon Drive (NS) / 20th Avenue (EW) - #8

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**22**	SOUTH LEG		NORTH	LEFT	**42**	SOUTH LEG	
BOUND	THRU	**239**	IN ...	**710**	BOUND	THRU	**586**	IN ...	**1,860**
	RIGHT	**4**	OUT ...	**2,550**		RIGHT	**6**	OUT ...	**1,850**
SOUTH	LEFT	**3**	NORTH LEG		SOUTH	LEFT	**5**	NORTH LEG	
BOUND	THRU	**794**	IN ...	**2,420**	BOUND	THRU	**410**	IN ...	**1,120**
	RIGHT	**21**	OUT ...	**1,280**		RIGHT	**18**	OUT ...	**1,720**
EAST	LEFT	**23**	WEST LEG		EAST	LEFT	**22**	WEST LEG	
BOUND	THRU	**0**	IN ...	**190**	BOUND	THRU	**1**	IN ...	**720**
	RIGHT	**68**	OUT ...	**190**		RIGHT	**67**	OUT ...	**350**
WEST	LEFT	**263**	EAST LEG		WEST	LEFT	**218**	EAST LEG	
BOUND	THRU	**32**	IN ...	**940**	BOUND	THRU	**27**	IN ...	**840**
	RIGHT	**111**	OUT ...	**230**		RIGHT	**238**	OUT ...	**640**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**22**	**26**	NORTH LEG	NORTH	LEFT	**42**	**214**	NORTH LEG
BOUND	THRU	**239**	**635**	RATIO **7.7%**	BOUND	THRU	**586**	**1,307**	RATIO **6.0%**
	RIGHT	**4**	**60**	ADT 47,700		RIGHT	**6**	**344**	ADT 47,700
SOUTH	LEFT	**3**	**170**	SOUTH LEG	SOUTH	LEFT	**5**	**176**	SOUTH LEG
BOUND	THRU	**794**	**2,129**	RATIO **5.0%**	BOUND	THRU	**410**	**895**	RATIO **5.6%**
	RIGHT	**21**	**95**	ADT 65,800		RIGHT	**18**	**56**	ADT 65,800
EAST	LEFT	**23**	**107**	EAST LEG	EAST	LEFT	**22**	**103**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **3.2%**	BOUND	THRU	**1**	**120**	RATIO **4.1%**
	RIGHT	**68**	**84**	ADT 36,400		RIGHT	**67**	**501**	ADT 36,400
WEST	LEFT	**263**	**337**	WEST LEG	WEST	LEFT	**218**	**454**	WEST LEG
BOUND	THRU	**32**	**69**	RATIO **2.0%**	BOUND	THRU	**27**	**80**	RATIO **5.6%**
	RIGHT	**111**	**538**	ADT 19,200		RIGHT	**238**	**310**	ADT 19,200

Little Morongo Road (NS) / Mission Lakes Boulevard (EW) - #9

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

MORNING PEAK HOUR — 2019

```
            17   68   20
             <    v    >
13  ^                      ^  20
87  >                      <  113
64  v                      v  119
             <    ^    >
            42   31   59
```

EVENING PEAK HOUR — 2019

```
            11   61   11
             <    v    >
23  ^                      ^  22
88  >                      <  88
60  v                      v  44
             <    ^    >
            87   67   63
```

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

MORNING PEAK HOUR — 2019

```
                 105   64
                  v     ^
172  <    IN  =   653   <  252
164  >    OUT =   653   >  166
                  v     ^
                 251   132
```

EVENING PEAK HOUR — 2019

```
                  83   112
                  v     ^
186  <    IN  =   625   <  154
171  >    OUT =   625   >  162
                  v     ^
                 165   217
```

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

MORNING PEAK HOUR

```
             0    0    0
             <    v    >
0   ^                      ^  0
0   >                      <  0
0   v                      v  0
             <    ^    >
             0    0    0
```

PCE FACTORS BY AXLE:
2: 1.5   3: 2.0   4+: 3.0

EVENING PEAK HOUR

```
             0    0    0
             <    v    >
0   ^                      ^  0
0   >                      <  0
0   v                      v  0
             <    ^    >
             0    0    0
```

PCE FACTORS BY AXLE:
2: 1.5   3: 2   4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

MORNING PEAK HOUR — 2019

```
            17   68   20
             <    v    >
13  ^                      ^  20
87  >                      <  113
64  v                      v  119
             <    ^    >
            42   31   59
```

EVENING PEAK HOUR — 2019

```
            11   61   11
             <    v    >
23  ^                      ^  22
88  >                      <  88
60  v                      v  44
             <    ^    >
            87   67   63
```

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR — 2008

```
                 363   300
                  v     ^
158  <    IN  =   906   <  89
304  >    OUT =   906   >  59
                  v     ^
                 389   150
```

EVENING PEAK HOUR — 2008

```
                 635   1034
                  v     ^
558  <    IN  =  2367   <  158
871  >    OUT =  2367   >  198
                  v     ^
                 577   703
```

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR — 2008

```
                   5    4
                  v     ^
3    <    IN  =   13    <  1
6    >    OUT =   13    >  1
                  v     ^
                   5    1
```

EVENING PEAK HOUR — 2008

```
                   7    8
                  v     ^
9    <    IN  =   28    <  2
10   >    OUT =   28    >  2
                  v     ^
                   9    9
```

EXISTING PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

```
                 140   115
                  v     ^
61   <    IN  =   349   <  34
118  >    OUT =   349   >  23
                  v     ^
                 149   57
```

EVENING PEAK HOUR

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

```
                 180   292
                  v     ^
158  <    IN  =   670   <  45
246  >    OUT =   670   >  56
                  v     ^
                 164   199
```

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR — 2040

```
                  591   275
                   v     ^
1030  <    IN  =  3893   <  1004
1406  >    OUT =  3893   >  564
                   v     ^
                 2024   892
```

EVENING PEAK HOUR — 2040

```
                  657   807
                   v     ^
2981  <    IN  =  7811   <  1432
2162  >    OUT =  7811   >  1757
                   v     ^
                 2266   3560
```

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR — 2040

```
                   4    4
                  v     ^
16   <    IN  =   53    <  11
21   >    OUT =   54    >  11
                  v     ^
                  23    17
```

EVENING PEAK HOUR — 2040

```
                   5    5
                  v     ^
40   <    IN  =   117   <  18
56   >    OUT =   118   >  24
                  v     ^
                  49    38
```

FUTURE PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

```
                 226   106
                  v     ^
397  <    IN  =  1497   <  385
541  >    OUT =  1497   >  218
                  v     ^
                 777   345
```

EVENING PEAK HOUR

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

```
                 185   227
                  v     ^
845  <    IN  =  2216   <  405
619  >    OUT =  2217   >  498
                  v     ^
                 647   1006
```

RAW GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

```
                  86   -10
                  v     ^
336  <                  <  351
424  >                  >  195
                  v     ^
                 627   287
```

EVENING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

```
                   6   -64
                  v     ^
686  <                  <  361
373  >                  >  442
                  v     ^
                 483   807
```

ADJUSTED GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

10 MINIMUM GROWTH %

```
                  90    10
                  v     ^
340  <    IN  =  1150   <  350
420  >    OUT =  1180   >  200
                  v     ^
                 630   290
```

EVENING PEAK HOUR

10 MINIMUM GROWTH %

```
                  10    10
                  v     ^
690  <    IN  =  1550   <  360
370  >    OUT =  1620   >  440
                  v     ^
                 480   810
```

PRORATED GROWTH (PCEs): 2019 TO 2040

MORNING PEAK HOUR

21 YEARS

```
                  60    10
                  v     ^
220  <                  <  230
280  >                  >  130
                  v     ^
                 410   190
```

EVENING PEAK HOUR

21 YEARS

```
                  10    10
                  v     ^
450  <                  <  240
240  >                  >  290
                  v     ^
                 320   530
```

NEW PROJECTED VOLUMES (PCEs): 2040

MORNING PEAK HOUR

```
                 170    70
                  v     ^
390  <                  <  480
440  >                  >  300
                  v     ^
                 660   320
```

EVENING PEAK HOUR

```
                  90   120
                  v     ^
640  <                  <  390
410  >                  >  450
                  v     ^
                 490   750
```

Little Morongo Road (NS) / Mission Lakes Boulevard (EW) - #9

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**42**	SOUTH LEG		NORTH	LEFT	**87**	SOUTH LEG	
BOUND	THRU	**31**	IN ...	**320**	BOUND	THRU	**67**	IN ...	**750**
	RIGHT	**59**	OUT ...	**660**		RIGHT	**63**	OUT ...	**490**
SOUTH	LEFT	**20**	NORTH LEG		SOUTH	LEFT	**11**	NORTH LEG	
BOUND	THRU	**68**	IN ...	**170**	BOUND	THRU	**61**	IN ...	**90**
	RIGHT	**17**	OUT ...	**70**		RIGHT	**11**	OUT ...	**120**
EAST	LEFT	**13**	WEST LEG		EAST	LEFT	**23**	WEST LEG	
BOUND	THRU	**87**	IN ...	**440**	BOUND	THRU	**88**	IN ...	**410**
	RIGHT	**64**	OUT ...	**390**		RIGHT	**60**	OUT ...	**640**
WEST	LEFT	**119**	EAST LEG		WEST	LEFT	**44**	EAST LEG	
BOUND	THRU	**113**	IN ...	**480**	BOUND	THRU	**88**	IN ...	**390**
	RIGHT	**20**	OUT ...	**300**		RIGHT	**22**	OUT ...	**450**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**42**	**159**	NORTH LEG	NORTH	LEFT	**87**	**421**	NORTH LEG
BOUND	THRU	**31**	**42**	RATIO **1.0%**	BOUND	THRU	**67**	**90**	RATIO **1.0%**
	RIGHT	**59**	**122**	ADT 25,200		RIGHT	**63**	**266**	ADT 25,200
SOUTH	LEFT	**20**	**22**	SOUTH LEG	SOUTH	LEFT	**11**	**12**	SOUTH LEG
BOUND	THRU	**68**	**128**	RATIO **3.6%**	BOUND	THRU	**61**	**78**	RATIO **4.7%**
	RIGHT	**17**	**26**	ADT 27,000		RIGHT	**11**	**12**	ADT 27,000
EAST	LEFT	**13**	**16**	EAST LEG	EAST	LEFT	**23**	**25**	EAST LEG
BOUND	THRU	**87**	**161**	RATIO **12.5%**	BOUND	THRU	**88**	**177**	RATIO **13.6%**
	RIGHT	**64**	**266**	ADT 6,400		RIGHT	**60**	**234**	ADT 6,400
WEST	LEFT	**119**	**265**	WEST LEG	WEST	LEFT	**44**	**179**	WEST LEG
BOUND	THRU	**113**	**205**	RATIO **6.0%**	BOUND	THRU	**88**	**211**	RATIO **7.8%**
	RIGHT	**20**	**22**	ADT 13,900		RIGHT	**22**	**24**	ADT 13,900

Little Morongo Road (NS) / Pierson Boulevard (EW) - #10

MORNING PEAK HOUR								EVENING PEAK HOUR							
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):								EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):							
2019			26	147	80			2019			14	95	57		
			<	v	>						<	v	>		
	31	^				^	51		23	^				^	77
	200	>				<	179		171	>				<	174
	54	v				v	80		27	v				v	38
			<	^	>						<	^	>		
			17	54	71						52	123	55		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):								EXISTING PEAK HOUR COUNT YEAR (AUTOS):							
2019				253	136			2019				166	223		
				v	^							v	^		
	222	<		IN =	990	<	310		240	<		IN =	906	<	289
	285	>		OUT =	990	>	351		221	>		OUT =	906	>	283
				v	^							v	^		
				281	142							160	230		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):								EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):							
			0	0	0						0	0	0		
			<	v	>						<	v	>		
	0	^				^	0		0	^				^	0
	0	>				<	0		0	>				<	0
	0	v				v	0		0	v				v	0
PCE FACTORS BY AXLE:			<	^	>			PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0			2: 1.5 3: 2 4+: 3.0			0	0	0		
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):								TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):							
2019			26	147	80			2019			14	95	57		
			<	v	>						<	v	>		
	31	^				^	51		23	^				^	77
	200	>				<	179		171	>				<	174
	54	v				v	80		27	v				v	38
			<	^	>						<	^	>		
			17	54	71						52	123	55		
EXISTING PEAK PERIOD MODEL YEAR (AUTO):								EXISTING PEAK PERIOD MODEL YEAR (AUTO):							
2008				389	150			2008				577	703		
				v	^							v	^		
	757	<		IN =	1730	<	856		1014	<		IN =	3803	<	1356
	344	>		OUT =	1730	>	588		1444	>		OUT =	3803	>	1770
				v	^							v	^		
				235	141							316	426		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):								EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2008				5	1			2008				9	9		
				v	^							v	^		
	18	<		IN =	39	<	19		26	<		IN =	68	<	30
	14	>		OUT =	39	>	18		27	>		OUT =	69	>	32
				v	^							v	^		
				2	1							2	2		
EXISTING PEAK HOUR MODEL YEAR (PCEs):								EXISTING PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				149	57			PHF FOR CARS: 0.28				164	199		
PHF FOR TRUCKS: 0.333				v	^			PHF FOR TRUCKS: 0.25				v	^		
	294	<		IN =	670	<	332		290	<		IN =	1082	<	387
	135	>		OUT =	670	>	229		411	>		OUT =	1082	>	504
				v	^							v	^		
				90	54							89	120		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):								FUTURE PEAK PERIOD MODEL YEAR (AUTO):							
2040				2024	892			2040				2266	3560		
				v	^							v	^		
	1305	<		IN =	5823	<	1784		2282	<		IN =	11293	<	2817
	1135	>		OUT =	5822	>	1348		2153	>		OUT =	11292	>	3104
				v	^							v	^		
				2277	880							2346	4057		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):								FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2040				23	17			2040				49	38		
				v	^							v	^		
	16	<		IN =	76	<	21		29	<		IN =	147	<	39
	14	>		OUT =	77	>	27		22	>		OUT =	146	>	40
				v	^							v	^		
				17	18							39	37		
FUTURE PEAK HOUR MODEL YEAR (PCEs):								FUTURE PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				777	345			PHF FOR CARS: 0.28				647	1006		
PHF FOR TRUCKS: 0.333				v	^			PHF FOR TRUCKS: 0.25				v	^		
	501	<		IN =	2238	<	685		646	<		IN =	3199	<	799
	436	>		OUT =	2238	>	521		608	>		OUT =	3198	>	879
				v	^							v	^		
				871	340							667	1145		
RAW GROWTH (PCEs): 2008 TO 2040								RAW GROWTH (PCEs): 2008 TO 2040							
CONVERSION OF TRUCKS TO: 2040				627	287			CONVERSION OF TRUCKS TO: 2040				483	807		
FACTOR = 1.00				v	^			FACTOR = 1.00				v	^		
	208	<				<	353		356	<				<	411
	301	>				>	292		197	>				>	376
				v	^							v	^		
				781	286							578	1025		
ADJUSTED GROWTH (PCEs): 2008 TO 2040								ADJUSTED GROWTH (PCEs): 2008 TO 2040							
10 MINIMUM GROWTH %				630	290			10 MINIMUM GROWTH %				480	810		
				v	^							v	^		
	210	<		IN =	1570	<	350		360	<		IN =	2120	<	410
	300	>		OUT =	1570	>	290		200	>		OUT =	2130	>	380
				v	^							v	^		
				780	290							580	1030		
PRORATED GROWTH (PCEs): 2019 TO 2040								PRORATED GROWTH (PCEs): 2019 TO 2040							
21 YEARS				410	190			21 YEARS				320	530		
				v	^							v	^		
	140	<				<	230		240	<				<	270
	200	>				>	190		130	>				>	250
				v	^							v	^		
				510	190							380	680		
NEW PROJECTED VOLUMES (PCEs): 2040								NEW PROJECTED VOLUMES (PCEs): 2040							
				660	330							490	750		
				v	^							v	^		
	360	<				<	540		480	<				<	560
	490	>				>	540		350	>				>	530
				v	^							v	^		
				790	330							540	910		

Little Morongo Road (NS) / Pierson Boulevard (EW) - #10

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**17**	SOUTH LEG		NORTH	LEFT	**52**	SOUTH LEG	
BOUND	THRU	**54**	IN ...	**330**	BOUND	THRU	**123**	IN ...	**910**
	RIGHT	**71**	OUT ...	**790**		RIGHT	**55**	OUT ...	**540**
SOUTH	LEFT	**80**	NORTH LEG		SOUTH	LEFT	**57**	NORTH LEG	
BOUND	THRU	**147**	IN ...	**660**	BOUND	THRU	**95**	IN ...	**490**
	RIGHT	**26**	OUT ...	**330**		RIGHT	**14**	OUT ...	**750**
EAST	LEFT	**31**	WEST LEG		EAST	LEFT	**23**	WEST LEG	
BOUND	THRU	**200**	IN ...	**490**	BOUND	THRU	**171**	IN ...	**350**
	RIGHT	**54**	OUT ...	**360**		RIGHT	**27**	OUT ...	**480**
WEST	LEFT	**80**	EAST LEG		WEST	LEFT	**38**	EAST LEG	
BOUND	THRU	**179**	IN ...	**540**	BOUND	THRU	**174**	IN ...	**560**
	RIGHT	**51**	OUT ...	**540**		RIGHT	**77**	OUT ...	**530**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**17**	**39**	NORTH LEG	NORTH	LEFT	**52**	**175**	NORTH LEG
BOUND	THRU	**54**	**162**	RATIO **3.6%**	BOUND	THRU	**123**	**546**	RATIO **4.5%**
	RIGHT	**71**	**129**	ADT 27,300		RIGHT	**55**	**185**	ADT 27,300
SOUTH	LEFT	**80**	**134**	SOUTH LEG	SOUTH	LEFT	**57**	**110**	SOUTH LEG
BOUND	THRU	**147**	**470**	RATIO **11.5%**	BOUND	THRU	**95**	**352**	RATIO **14.9%**
	RIGHT	**26**	**56**	ADT 9,700		RIGHT	**14**	**27**	ADT 9,700
EAST	LEFT	**31**	**71**	EAST LEG	EAST	LEFT	**23**	**42**	EAST LEG
BOUND	THRU	**200**	**277**	RATIO **4.2%**	BOUND	THRU	**171**	**235**	RATIO **4.2%**
	RIGHT	**54**	**142**	ADT 25,700		RIGHT	**27**	**71**	ADT 25,700
WEST	LEFT	**80**	**177**	WEST LEG	WEST	LEFT	**38**	**117**	WEST LEG
BOUND	THRU	**179**	**265**	RATIO **2.3%**	BOUND	THRU	**174**	**278**	RATIO **2.3%**
	RIGHT	**51**	**98**	ADT 36,600		RIGHT	**77**	**162**	ADT 36,600

Little Morongo Road (NS) / Two Bunch Palms Trail (EW) - #11

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 211 84
< v >
1 ^ ^ 29
8 > < 6
15 v v 187
< ^ >
2 123 80

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
296 153
v ^
9 < IN = 747 < 222
24 > OUT = 747 > 172
v ^
413 205

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 211 84
< v >
1 ^ ^ 29
8 > < 6
15 v v 187
< ^ >
2 123 80

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
249 149
v ^
0 < IN = 536 < 128
0 > OUT = 548 > 43
v ^
356 159

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
2 1
v ^
0 < IN = 6 < 2
0 > OUT = 5 > 1
v ^
3 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
95 57
v ^
0 < IN = 206 < 49
0 > OUT = 210 > 17
v ^
136 61

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2654 749
v ^
575 < IN = 4741 < 674
478 > OUT = 4742 > 185
v ^
3233 935

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
18 17
v ^
13 < IN = 75 < 13
14 > OUT = 73 > 11
v ^
32 30

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
1015 290
v ^
223 < IN = 1827 < 260
186 > OUT = 1826 > 74
v ^
1239 365

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
919 233
v ^
223 < < 211
186 > > 57
v ^
1103 304

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
920 230
v ^
220 < IN = 1620 < 210
190 > OUT = 1610 > 60
v ^
1100 300

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
600 150
v ^
140 < < 140
120 > > 40
v ^
720 200

NEW PROJECTED VOLUMES (PCEs): 2040
900 300
v ^
150 < < 360
140 > > 210
v ^
1130 410

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
3 108 45
< v >
0 ^ ^ 69
11 > < 9
4 v v 114
< ^ >
14 167 203

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
156 236
v ^
26 < IN = 747 < 192
15 > OUT = 747 > 259
v ^
226 384

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
3 108 45
< v >
0 ^ ^ 69
11 > < 9
4 v v 114
< ^ >
14 167 203

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
345 438
v ^
0 < IN = 1325 < 122
0 > OUT = 1331 > 482
v ^
411 858

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
2 2
v ^
0 < IN = 10 < 2
0 > OUT = 9 > 4
v ^
3 6

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
97 123
v ^
0 < IN = 374 < 35
0 > OUT = 375 > 136
v ^
116 242

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2136 4188
v ^
827 < IN = 9137 < 770
935 > OUT = 9137 > 1428
v ^
2694 5296

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
29 33
v ^
23 < IN = 133 < 22
21 > OUT = 131 > 23
v ^
52 61

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
605 1181
v ^
237 < IN = 2592 < 221
267 > OUT = 2591 > 406
v ^
767 1498

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
508 1058
v ^
237 < < 186
267 > > 270
v ^
651 1256

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
510 1060
v ^
240 < IN = 2230 < 190
270 > OUT = 2220 > 270
v ^
650 1260

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
330 700
v ^
160 < < 120
180 > > 180
v ^
430 830

NEW PROJECTED VOLUMES (PCEs): 2040
490 940
v ^
190 < < 310
200 > > 440
v ^
660 1210

Little Morongo Road (NS) / Two Bunch Palms Trail (EW) - #11

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**14**	SOUTH LEG	
BOUND	THRU	**123**	IN ...	**410**	BOUND	THRU	**167**	IN ...	**1,210**
	RIGHT	**80**	OUT ...	**1,130**		RIGHT	**203**	OUT ...	**660**
SOUTH	LEFT	**84**	NORTH LEG		SOUTH	LEFT	**45**	NORTH LEG	
BOUND	THRU	**211**	IN ...	**900**	BOUND	THRU	**108**	IN ...	**490**
	RIGHT	**1**	OUT ...	**300**		RIGHT	**3**	OUT ...	**940**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**8**	IN ...	**140**	BOUND	THRU	**11**	IN ...	**200**
	RIGHT	**15**	OUT ...	**150**		RIGHT	**4**	OUT ...	**190**
WEST	LEFT	**187**	EAST LEG		WEST	LEFT	**114**	EAST LEG	
BOUND	THRU	**6**	IN ...	**360**	BOUND	THRU	**9**	IN ...	**310**
	RIGHT	**29**	OUT ...	**210**		RIGHT	**69**	OUT ...	**440**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**51**	NORTH LEG	NORTH	LEFT	**14**	**130**	NORTH LEG
BOUND	THRU	**123**	**267**	RATIO **5.3%**	BOUND	THRU	**167**	**815**	RATIO **6.3%**
	RIGHT	**80**	**88**	ADT 22,600		RIGHT	**203**	**276**	ADT 22,600
SOUTH	LEFT	**84**	**104**	SOUTH LEG	SOUTH	LEFT	**45**	**62**	SOUTH LEG
BOUND	THRU	**211**	**758**	RATIO **6.8%**	BOUND	THRU	**108**	**404**	RATIO **8.4%**
	RIGHT	**1**	**30**	ADT 22,500		RIGHT	**3**	**28**	ADT 22,500
EAST	LEFT	**1**	**5**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**8**	**21**	RATIO **2.1%**	BOUND	THRU	**11**	**102**	RATIO **2.7%**
	RIGHT	**15**	**113**	ADT 27,400		RIGHT	**4**	**100**	ADT 27,400
WEST	LEFT	**187**	**259**	WEST LEG	WEST	LEFT	**114**	**156**	WEST LEG
BOUND	THRU	**6**	**69**	RATIO **1.0%**	BOUND	THRU	**9**	**31**	RATIO **1.4%**
	RIGHT	**29**	**32**	ADT 28,800		RIGHT	**69**	**125**	ADT 28,800

Little Morongo Road (NS) / Dillon Road (EW) - #12

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019 228 2 164

< v >

104 ^ ^ 118

115 > < 261

1 v v 1

< ^ >

1 2 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019 394 224

v ^

490 < IN = 998 < 380

220 > OUT = 998 > 280

v ^

4 4

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

0 0 0

< v >

0 ^ ^ 0

0 > < 0

0 v v 0

PCE FACTORS BY AXLE: < ^ >

2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019 228 2 164

< v >

104 ^ ^ 118

115 > < 261

1 v v 1

< ^ >

1 2 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008 354 119

v ^

548 < IN = 1162 < 372

414 > OUT = 1161 > 373

v ^

121 22

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008 5 4

v ^

19 < IN = 38 < 15

18 > OUT = 39 > 15

v ^

1 0

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38 136 47

PHF FOR TRUCKS: 0.333 v ^

215 < IN = 454 < 146

163 > OUT = 454 > 147

v ^

46 8

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040 3119 771

v ^

2418 < IN = 7813 < 2888

1052 > OUT = 7813 > 1443

v ^

3181 754

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040 40 37

v ^

64 < IN = 166 < 48

51 > OUT = 165 > 39

v ^

25 27

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38 1199 305

PHF FOR TRUCKS: 0.333 v ^

940 < IN = 3024 < 1113

417 > OUT = 3024 > 561

v ^

1217 296

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040 1062 259

FACTOR = 1.00 v ^

726 < < 967

253 > > 415

v ^

1171 287

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH % 1060 260

v ^

730 < IN = 2570 < 970

250 > OUT = 2570 > 410

v ^

1170 290

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS 700 170

v ^

480 < < 640

160 > > 270

v ^

770 190

NEW PROJECTED VOLUMES (PCEs): 2040

1090 390

v ^

970 < < 1020

380 > > 550

v ^

770 190

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019 131 2 104

< v >

226 ^ ^ 157

243 > < 185

1 v v 1

< ^ >

1 2 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019 237 385

v ^

317 < IN = 1054 < 343

470 > OUT = 1054 > 348

v ^

4 4

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

0 0 0

< v >

0 ^ ^ 0

0 > < 0

0 v v 0

PCE FACTORS BY AXLE: < ^ >

2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019 131 2 104

< v >

226 ^ ^ 157

243 > < 185

1 v v 1

< ^ >

1 2 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008 361 1800

v ^

898 < IN = 3562 < 717

1004 > OUT = 3563 > 799

v ^

66 1480

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008 7 11

v ^

29 < IN = 62 < 23

27 > OUT = 64 > 23

v ^

1 5

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28 103 507

PHF FOR TRUCKS: 0.25 v ^

259 < IN = 1013 < 207

288 > OUT = 1014 > 229

v ^

19 416

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040 2370 5193

v ^

2714 < IN = 14064 < 3282

2719 > OUT = 14064 > 3783

v ^

2374 5693

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040 65 75

v ^

102 < IN = 275 < 77

53 > OUT = 275 > 58

v ^

40 80

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28 680 1473

PHF FOR TRUCKS: 0.25 v ^

785 < IN = 4007 < 938

775 > OUT = 4007 > 1074

v ^

675 1614

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040 577 966

FACTOR = 1.00 v ^

527 < < 732

487 > > 844

v ^

656 1198

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH % 580 970

v ^

530 < IN = 3000 < 730

490 > OUT = 3000 > 840

v ^

660 1200

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS 380 640

v ^

350 < < 480

320 > > 550

v ^

430 790

NEW PROJECTED VOLUMES (PCEs): 2040

620 1030

v ^

670 < < 820

790 > > 900

v ^

430 790

Little Morongo Road (NS) / Dillon Road (EW) - #12

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
	TURNING	BASE YEAR		YEAR 2040		TURNING	BASE YEAR		YEAR 2040
APPROACH	MOVEMENT	COUNT	APPROACH	TOTAL	APPROACH	MOVEMENT	COUNT	APPROACH	TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**2**	IN ...	**190**	BOUND	THRU	**2**	IN ...	**790**
	RIGHT	**1**	OUT ...	**770**		RIGHT	**1**	OUT ...	**430**
SOUTH	LEFT	**164**	NORTH LEG		SOUTH	LEFT	**104**	NORTH LEG	
BOUND	THRU	**2**	IN ...	**1,090**	BOUND	THRU	**2**	IN ...	**620**
	RIGHT	**228**	OUT ...	**390**		RIGHT	**131**	OUT ...	**1,030**
EAST	LEFT	**104**	WEST LEG		EAST	LEFT	**226**	WEST LEG	
BOUND	THRU	**115**	IN ...	**380**	BOUND	THRU	**243**	IN ...	**790**
	RIGHT	**1**	OUT ...	**970**		RIGHT	**1**	OUT ...	**670**
WEST	LEFT	**1**	EAST LEG		WEST	LEFT	**1**	EAST LEG	
BOUND	THRU	**261**	IN ...	**1,020**	BOUND	THRU	**185**	IN ...	**820**
	RIGHT	**118**	OUT ...	**550**		RIGHT	**157**	OUT ...	**900**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
	TURNING	BASE YEAR	YEAR 2040	PEAK - DAILY		TURNING	BASE YEAR	YEAR 2040	PEAK - DAILY
APPROACH	MOVEMENT	COUNT	FORECAST	RELATIONSHIP	APPROACH	MOVEMENT	COUNT	FORECAST	RELATIONSHIP
NORTH	LEFT	**1**	**48**	NORTH LEG	NORTH	LEFT	**1**	**156**	NORTH LEG
BOUND	THRU	**2**	**82**	RATIO **7.4%**	BOUND	THRU	**2**	**385**	RATIO **8.2%**
	RIGHT	**1**	**60**	ADT 20,200		RIGHT	**1**	**252**	ADT 20,200
SOUTH	LEFT	**164**	**334**	SOUTH LEG	SOUTH	LEFT	**104**	**231**	SOUTH LEG
BOUND	THRU	**2**	**387**	RATIO **4.3%**	BOUND	THRU	**2**	**211**	RATIO **5.5%**
	RIGHT	**228**	**369**	ADT 22,400		RIGHT	**131**	**180**	ADT 22,400
EAST	LEFT	**104**	**114**	EAST LEG	EAST	LEFT	**226**	**295**	EAST LEG
BOUND	THRU	**115**	**156**	RATIO **7.6%**	BOUND	THRU	**243**	**416**	RATIO **8.4%**
	RIGHT	**1**	**129**	ADT 20,600		RIGHT	**1**	**81**	ADT 20,600
WEST	LEFT	**1**	**254**	WEST LEG	WEST	LEFT	**1**	**138**	WEST LEG
BOUND	THRU	**261**	**553**	RATIO **8.3%**	BOUND	THRU	**185**	**334**	RATIO **8.9%**
	RIGHT	**118**	**213**	ADT 16,500		RIGHT	**157**	**350**	ADT 16,500

Little Morongo Road (NS) / 20th Avenue (EW) - #13

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
2 1 1
< v >
2 ^ ^ 1
1 > < 2
1 v v 1
< ^ >
2 1 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
4 4
v ^
6 < IN = 16 < 4
4 > OUT = 16 > 3
v ^
3 4

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
2 1 1
< v >
2 ^ ^ 1
1 > < 2
1 v v 1
< ^ >
2 1 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
32 1
v ^
161 < IN = 246 < 141
73 > OUT = 247 > 85
v ^
0 0

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
0 0
v ^
3 < IN = 6 < 3
3 > OUT = 6 > 3
v ^
0 0

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
12 0
v ^
62 < IN = 95 < 55
29 > OUT = 96 > 33
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
1996 294
v ^
2303 < IN = 4263 < 1266
1001 > OUT = 4263 > 1666
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
15 11
v ^
27 < IN = 73 < 24
34 > OUT = 74 > 36
v ^
0 0

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
763 115
v ^
884 < IN = 1644 < 489
392 > OUT = 1645 > 645
v ^
0 0

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
751 115
v ^
822 < < 434
363 > > 612
v ^
0 0

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
750 120
v ^
820 < IN = 1540 < 430
360 > OUT = 1550 > 610
v ^
0 0

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
490 80
v ^
540 < < 280
240 > > 400
v ^
0 0

NEW PROJECTED VOLUMES (PCEs): 2040
490 80
v ^
550 < < 280
240 > > 400
v ^
0 0

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
2 1 1
< v >
2 ^ ^ 1
1 > < 2
1 v v 1
< ^ >
2 1 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
4 4
v ^
6 < IN = 16 < 4
4 > OUT = 16 > 3
v ^
3 4

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
2 1 1
< v >
2 ^ ^ 1
1 > < 2
1 v v 1
< ^ >
2 1 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
16 1006
v ^
176 < IN = 1765 < 166
1583 > OUT = 1765 > 583
v ^
0 0

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
0 4
v ^
5 < IN = 16 < 5
11 > OUT = 16 > 7
v ^
0 0

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
4 283
v ^
51 < IN = 498 < 48
446 > OUT = 498 > 165
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
1640 4034
v ^
2194 < IN = 8588 < 1842
5106 > OUT = 8587 > 2359
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
23 60
v ^
91 < IN = 185 < 85
77 > OUT = 185 > 34
v ^
0 0

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
465 1145
v ^
637 < IN = 2451 < 537
1449 > OUT = 2451 > 669
v ^
0 0

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
460 862
v ^
587 < < 489
1003 > > 504
v ^
0 0

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
460 860
v ^
590 < IN = 1950 < 490
1000 > OUT = 1950 > 500
v ^
0 0

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
300 560
v ^
390 < < 320
660 > > 330
v ^
0 0

NEW PROJECTED VOLUMES (PCEs): 2040
300 560
v ^
400 < < 320
660 > > 330
v ^
0 0

Little Morongo Road (NS) / 20th Avenue (EW) - #13

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**2**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**0**	BOUND	THRU	**1**	IN ...	**0**
	RIGHT	**1**	OUT ...	**0**		RIGHT	**1**	OUT ...	**0**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**1**	IN ...	**490**	BOUND	THRU	**1**	IN ...	**300**
	RIGHT	**2**	OUT ...	**80**		RIGHT	**2**	OUT ...	**560**
EAST	LEFT	**2**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**1**	IN ...	**240**	BOUND	THRU	**1**	IN ...	**660**
	RIGHT	**1**	OUT ...	**550**		RIGHT	**1**	OUT ...	**400**
WEST	LEFT	**1**	EAST LEG		WEST	LEFT	**1**	EAST LEG	
BOUND	THRU	**2**	IN ...	**280**	BOUND	THRU	**2**	IN ...	**320**
	RIGHT	**1**	OUT ...	**400**		RIGHT	**1**	OUT ...	**330**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**2**	NORTH LEG	NORTH	LEFT	**2**	**2**	NORTH LEG
BOUND	THRU	**1**	**1**	RATIO **3.1%**	BOUND	THRU	**1**	**1**	RATIO **4.7%**
	RIGHT	**1**	**1**	ADT 18,500		RIGHT	**1**	**1**	ADT 18,500
SOUTH	LEFT	**1**	**209**	SOUTH LEG	SOUTH	LEFT	**1**	**109**	SOUTH LEG
BOUND	THRU	**1**	**1**	RATIO **0.1%**	BOUND	THRU	**1**	**1**	RATIO **0.1%**
	RIGHT	**2**	**291**	ADT 12,200		RIGHT	**2**	**194**	ADT 12,200
EAST	LEFT	**2**	**54**	EAST LEG	EAST	LEFT	**2**	**444**	EAST LEG
BOUND	THRU	**1**	**191**	RATIO **6.2%**	BOUND	THRU	**1**	**221**	RATIO **5.9%**
	RIGHT	**1**	**1**	ADT 11,000		RIGHT	**1**	**1**	ADT 11,000
WEST	LEFT	**1**	**1**	WEST LEG	WEST	LEFT	**1**	**1**	WEST LEG
BOUND	THRU	**2**	**259**	RATIO **6.8%**	BOUND	THRU	**2**	**206**	RATIO **9.1%**
	RIGHT	**1**	**26**	ADT 11,700		RIGHT	**1**	**116**	ADT 11,700

Palm Drive (NS) / Mission Lakes Boulevard (EW) - #14

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 4 24 1
< v >
4 ^ ^ 2
30 > < 39
211 v v 70
< ^ >
208 14 22

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 29 20
v ^
251 < IN = 629 < 111
245 > OUT = 629 > 53
v ^
305 244

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 4 24 1
< v >
4 ^ ^ 2
30 > < 39
211 v v 70
< ^ >
208 14 22

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 0 0
v ^
237 < IN = 300 < 0
58 > OUT = 300 > 0
v ^
63 242

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 0 0
v ^
3 < IN = 4 < 0
2 > OUT = 4 > 0
v ^
1 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 0 0
PHF FOR TRUCKS: 0.333 v ^
91 < IN = 115 < 0
23 > OUT = 115 > 0
v ^
24 93

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 0 0
v ^
880 < IN = 1649 < 0
764 > OUT = 1649 > 0
v ^
769 885

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 0 0
v ^
7 < IN = 15 < 0
8 > OUT = 15 > 0
v ^
8 7

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 0 0
PHF FOR TRUCKS: 0.333 v ^
337 < IN = 632 < 0
293 > OUT = 632 > 0
v ^
295 339

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 0 0
FACTOR = 1.00 v ^
246 < < 0
270 > > 0
v ^
271 246

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 0 0
v ^
250 < IN = 530 < 10
270 > OUT = 530 > 10
v ^
270 250

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 0 0
v ^
160 < < 10
180 > > 10
v ^
180 160

NEW PROJECTED VOLUMES (PCEs): 2040
30 20
v ^
410 < < 120
430 > > 60
v ^
490 400

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 3 6 1
< v >
2 ^ ^ 1
29 > < 20
150 v v 35
< ^ >
213 17 52

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 10 20
v ^
236 < IN = 529 < 56
181 > OUT = 529 > 82
v ^
191 282

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 3 6 1
< v >
2 ^ ^ 1
29 > < 20
150 v v 35
< ^ >
213 17 52

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 0 0
v ^
418 < IN = 1092 < 0
666 > OUT = 1092 > 0
v ^
674 426

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 0 0
v ^
2 < IN = 5 < 0
3 > OUT = 5 > 0
v ^
3 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 0 0
PHF FOR TRUCKS: 0.25 v ^
118 < IN = 307 < 0
187 > OUT = 307 > 0
v ^
189 120

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 0 0
v ^
2046 < IN = 3819 < 0
1773 > OUT = 3819 > 0
v ^
1773 2046

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 0 0
v ^
15 < IN = 34 < 0
21 > OUT = 34 > 0
v ^
19 13

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 0 0
PHF FOR TRUCKS: 0.25 v ^
577 < IN = 1078 < 0
502 > OUT = 1078 > 0
v ^
501 576

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 0 0
FACTOR = 1.00 v ^
459 < < 0
314 > > 0
v ^
312 456

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 0 0
v ^
460 < IN = 780 < 10
310 > OUT = 780 > 10
v ^
310 460

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 0 0
v ^
300 < < 10
200 > > 10
v ^
200 300

NEW PROJECTED VOLUMES (PCEs): 2040
10 20
v ^
540 < < 70
380 > > 90
v ^
390 580

Palm Drive (NS) / Mission Lakes Boulevard (EW) - #14

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**208**	SOUTH LEG		NORTH	LEFT	**213**	SOUTH LEG	
BOUND	THRU	**14**	IN ...	**400**	BOUND	THRU	**17**	IN ...	**580**
	RIGHT	**22**	OUT ...	**490**		RIGHT	**52**	OUT ...	**390**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**24**	IN ...	**30**	BOUND	THRU	**6**	IN ...	**10**
	RIGHT	**4**	OUT ...	**20**		RIGHT	**3**	OUT ...	**20**
EAST	LEFT	**4**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**30**	IN ...	**430**	BOUND	THRU	**29**	IN ...	**380**
	RIGHT	**211**	OUT ...	**410**		RIGHT	**150**	OUT ...	**540**
WEST	LEFT	**70**	EAST LEG		WEST	LEFT	**35**	EAST LEG	
BOUND	THRU	**39**	IN ...	**120**	BOUND	THRU	**20**	IN ...	**70**
	RIGHT	**2**	OUT ...	**60**		RIGHT	**1**	OUT ...	**90**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**208**	**362**	NORTH LEG		NORTH	LEFT	**213**	**509**	NORTH LEG	
BOUND	THRU	**14**	**15**	RATIO	**0.4%**	BOUND	THRU	**17**	**19**	RATIO	**0.3%**
	RIGHT	**22**	**24**	ADT	12,100		RIGHT	**52**	**57**	ADT	12,100
SOUTH	LEFT	**1**	**1**	SOUTH LEG		SOUTH	LEFT	**1**	**1**	SOUTH LEG	
BOUND	THRU	**24**	**26**	RATIO	**5.0%**	BOUND	THRU	**6**	**7**	RATIO	**5.5%**
	RIGHT	**4**	**4**	ADT	17,900		RIGHT	**3**	**3**	ADT	17,900
EAST	LEFT	**4**	**4**	EAST LEG		EAST	LEFT	**2**	**2**	EAST LEG	
BOUND	THRU	**30**	**36**	RATIO	**4.3%**	BOUND	THRU	**29**	**34**	RATIO	**3.8%**
	RIGHT	**211**	**390**	ADT	4,300		RIGHT	**150**	**342**	ADT	4,300
WEST	LEFT	**70**	**77**	WEST LEG		WEST	LEFT	**35**	**42**	WEST LEG	
BOUND	THRU	**39**	**43**	RATIO	**9.0%**	BOUND	THRU	**20**	**28**	RATIO	**9.9%**
	RIGHT	**2**	**2**	ADT	9,300		RIGHT	**1**	**1**	ADT	9,300

Palm Drive (NS) / Pierson Boulevard (EW) - #15

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		27	453	24		
		<	v	>		
16	^				^	27
132	>				<	170
170	v				v	74
		<	^	>		
		193	270	51		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		504	313		
		v	^		
390	<	IN =	1607	<	271
318	>	OUT =	1607	>	207
		v	^		
		697	514		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		27	453	24		
		<	v	>		
16	^				^	27
132	>				<	170
170	v				v	74
		<	^	>		
		193	270	51		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		891	420		
		v	^		
1329	<	IN =	3905	<	1157
982	>	OUT =	3906	>	498
		v	^		
		1659	875		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		9	10		
		v	^		
15	<	IN =	47	<	10
14	>	OUT =	47	>	10
		v	^		
		12	14		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		342	163		
		v	^		
510	<	IN =	1500	<	443
378	>	OUT =	1500	>	193
		v	^		
		634	337		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		1791	1271		
		v	^		
1265	<	IN =	5956	<	1681
1381	>	OUT =	5956	>	1494
		v	^		
		1926	1103		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		14	15		
		v	^		
16	<	IN =	69	<	17
22	>	OUT =	69	>	26
		v	^		
		12	16		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		685	488		
		v	^		
486	<	IN =	2286	<	644
532	>	OUT =	2286	>	576
		v	^		
		736	424		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		344	325		
		v	^		
-24	<			<	201
154	>			>	384
		v	^		
		101	87		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		340	330		
		v	^		
40	<	IN =	780	<	200
150	>	OUT =	850	>	380
		v	^		
		100	90		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		220	220		
		v	^		
30	<			<	130
100	>			>	250
		v	^		
		70	60		

NEW PROJECTED VOLUMES (PCEs): 2040

		720	530		
		v	^		
420	<			<	400
420	>			>	460
		v	^		
		770	570		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		37	335	22		
		<	v	>		
42	^				^	39
101	>				<	119
161	v				v	68
		<	^	>		
		154	546	60		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		394	627		
		v	^		
310	<	IN =	1684	<	226
304	>	OUT =	1684	>	183
		v	^		
		564	760		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		37	335	22		
		<	v	>		
42	^				^	39
101	>				<	119
161	v				v	68
		<	^	>		
		154	546	60		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		1543	2196		
		v	^		
2054	<	IN =	9192	<	1710
2324	>	OUT =	9192	>	2547
		v	^		
		2395	3615		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		15	13		
		v	^		
21	<	IN =	70	<	17
23	>	OUT =	70	>	16
		v	^		
		20	15		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		436	618		
		v	^		
580	<	IN =	2591	<	483
656	>	OUT =	2591	>	717
		v	^		
		676	1016		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		2861	3929		
		v	^		
2737	<	IN =	11575	<	3003
2496	>	OUT =	11575	>	2702
		v	^		
		2207	3215		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		30	22		
		v	^		
29	<	IN =	111	<	32
34	>	OUT =	109	>	40
		v	^		
		18	15		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		809	1106		
		v	^		
774	<	IN =	3269	<	849
707	>	OUT =	3268	>	767
		v	^		
		622	904		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		373	487		
		v	^		
193	<			<	366
51	>			>	49
		v	^		
		-53	-112		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		370	490		
		v	^		
190	<	IN =	790	<	370
50	>	OUT =	730	>	50
		v	^		
		0	0		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		240	320		
		v	^		
120	<			<	240
30	>			>	30
		v	^		
		0	0		

NEW PROJECTED VOLUMES (PCEs): 2040

		630	950		
		v	^		
430	<			<	470
330	>			>	210
		v	^		
		560	760		

Palm Drive (NS) / Pierson Boulevard (EW) - #15

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**193**	SOUTH LEG		NORTH	LEFT	**154**	SOUTH LEG	
BOUND	THRU	**270**	IN ...	**570**	BOUND	THRU	**546**	IN ...	**760**
	RIGHT	**51**	OUT ...	**770**		RIGHT	**60**	OUT ...	**560**
SOUTH	LEFT	**24**	NORTH LEG		SOUTH	LEFT	**22**	NORTH LEG	
BOUND	THRU	**453**	IN ...	**720**	BOUND	THRU	**335**	IN ...	**630**
	RIGHT	**27**	OUT ...	**530**		RIGHT	**37**	OUT ...	**950**
EAST	LEFT	**16**	WEST LEG		EAST	LEFT	**42**	WEST LEG	
BOUND	THRU	**132**	IN ...	**420**	BOUND	THRU	**101**	IN ...	**330**
	RIGHT	**170**	OUT ...	**420**		RIGHT	**161**	OUT ...	**430**
WEST	LEFT	**74**	EAST LEG		WEST	LEFT	**68**	EAST LEG	
BOUND	THRU	**170**	IN ...	**400**	BOUND	THRU	**119**	IN ...	**470**
	RIGHT	**27**	OUT ...	**460**		RIGHT	**39**	OUT ...	**210**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**193**	**212**	NORTH LEG	NORTH	LEFT	**154**	**169**	NORTH LEG
BOUND	THRU	**270**	**400**	RATIO **6.7%**	BOUND	THRU	**546**	**647**	RATIO **8.3%**
	RIGHT	**51**	**72**	ADT 18,800		RIGHT	**60**	**66**	ADT 18,800
SOUTH	LEFT	**24**	**103**	SOUTH LEG	SOUTH	LEFT	**22**	**65**	SOUTH LEG
BOUND	THRU	**453**	**585**	RATIO **9.8%**	BOUND	THRU	**335**	**427**	RATIO **9.9%**
	RIGHT	**27**	**51**	ADT 15,700		RIGHT	**37**	**119**	ADT 15,700
EAST	LEFT	**16**	**36**	EAST LEG	EAST	LEFT	**42**	**125**	EAST LEG
BOUND	THRU	**132**	**285**	RATIO **9.2%**	BOUND	THRU	**101**	**117**	RATIO **7.6%**
	RIGHT	**170**	**187**	ADT 9,600		RIGHT	**161**	**177**	ADT 9,600
WEST	LEFT	**74**	**81**	WEST LEG	WEST	LEFT	**68**	**75**	WEST LEG
BOUND	THRU	**170**	**248**	RATIO **21.2%**	BOUND	THRU	**119**	**232**	RATIO **19.6%**
	RIGHT	**27**	**93**	ADT 4,800		RIGHT	**39**	**178**	ADT 4,800

Palm Drive (NS) / Hacienda Avenue (EW) - #16

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 22 657 85
< v >
23 ^ ^ 96
124 > < 121
93 v v 121
< ^ >
50 565 44

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 764 684
v ^
193 < IN = 2001 < 338
240 > OUT = 2001 > 253
v ^
871 659

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 22 657 85
< v >
23 ^ ^ 96
124 > < 121
93 v v 121
< ^ >
50 565 44

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1464 762
v ^
459 < IN = 3352 < 125
667 > OUT = 3353 > 128
v ^
2004 1096

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 10 11
v ^
9 < IN = 37 < 1
8 > OUT = 38 > 2
v ^
16 18

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 560 293
PHF FOR TRUCKS: 0.333 v ^
177 < IN = 1286 < 48
256 > OUT = 1287 > 49
v ^
767 422

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 1945 1191
v ^
1433 < IN = 5139 < 420
1175 > OUT = 5139 > 339
v ^
2176 1599

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 12 19
v ^
14 < IN = 53 < 4
17 > OUT = 53 > 6
v ^
14 20

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 743 459
PHF FOR TRUCKS: 0.333 v ^
549 < IN = 1970 < 161
452 > OUT = 1970 > 131
v ^
832 614

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 183 166
FACTOR = 1.00 v ^
372 < < 113
196 > > 82
v ^
65 192

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 180 170
v ^
370 < IN = 680 < 110
200 > OUT = 680 > 80
v ^
60 190

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 120 110
v ^
240 < < 70
130 > > 50
v ^
40 120

NEW PROJECTED VOLUMES (PCEs): 2040
880 790
v ^
430 < < 410
370 > > 300
v ^
910 780

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 26 541 112
< v >
40 ^ ^ 97
101 > < 126
76 v v 170
< ^ >
84 880 69

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 679 1017
v ^
236 < IN = 2322 < 393
217 > OUT = 2322 > 282
v ^
787 1033

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 26 541 112
< v >
40 ^ ^ 97
101 > < 126
76 v v 170
< ^ >
84 880 69

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 2009 3000
v ^
889 < IN = 7125 < 391
1210 > OUT = 7124 > 381
v ^
2854 3515

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 16 11
v ^
9 < IN = 49 < 4
13 > OUT = 49 > 2
v ^
27 16

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 567 843
PHF FOR TRUCKS: 0.25 v ^
251 < IN = 2007 < 110
342 > OUT = 2007 > 107
v ^
806 988

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 2210 3151
v ^
2712 < IN = 9861 < 1879
2684 > OUT = 9861 > 1166
v ^
2832 3088

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 20 16
v ^
34 < IN = 95 < 27
33 > OUT = 95 > 22
v ^
23 15

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 624 886
PHF FOR TRUCKS: 0.25 v ^
768 < IN = 2785 < 533
760 > OUT = 2785 > 332
v ^
799 868

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 57 44
FACTOR = 1.00 v ^
517 < < 422
418 > > 225
v ^
-7 -120

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 70 100
v ^
520 < IN = 910 < 420
420 > OUT = 840 > 220
v ^
0 0

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 50 70
v ^
340 < < 280
280 > > 140
v ^
0 0

NEW PROJECTED VOLUMES (PCEs): 2040
730 1090
v ^
580 < < 670
500 > > 420
v ^
790 1030

Palm Drive (NS) / Hacienda Avenue (EW) - #16

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**50**	SOUTH LEG		NORTH	LEFT	**84**	SOUTH LEG	
BOUND	THRU	**565**	IN ...	**780**	BOUND	THRU	**880**	IN ...	**1,030**
	RIGHT	**44**	OUT ...	**910**		RIGHT	**69**	OUT ...	**790**
SOUTH	LEFT	**85**	NORTH LEG		SOUTH	LEFT	**112**	NORTH LEG	
BOUND	THRU	**657**	IN ...	**880**	BOUND	THRU	**541**	IN ...	**730**
	RIGHT	**22**	OUT ...	**790**		RIGHT	**26**	OUT ...	**1,090**
EAST	LEFT	**23**	WEST LEG		EAST	LEFT	**40**	WEST LEG	
BOUND	THRU	**124**	IN ...	**370**	BOUND	THRU	**101**	IN ...	**500**
	RIGHT	**93**	OUT ...	**430**		RIGHT	**76**	OUT ...	**580**
WEST	LEFT	**121**	EAST LEG		WEST	LEFT	**170**	EAST LEG	
BOUND	THRU	**121**	IN ...	**410**	BOUND	THRU	**126**	IN ...	**670**
	RIGHT	**96**	OUT ...	**300**		RIGHT	**97**	OUT ...	**420**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**50**	**114**	NORTH LEG	NORTH	LEFT	**84**	**146**	NORTH LEG
BOUND	THRU	**565**	**641**	RATIO **10.5%**	BOUND	THRU	**880**	**968**	RATIO **12.7%**
	RIGHT	**44**	**48**	ADT 16,100		RIGHT	**69**	**76**	ADT 16,100
SOUTH	LEFT	**85**	**94**	SOUTH LEG	SOUTH	LEFT	**112**	**136**	SOUTH LEG
BOUND	THRU	**657**	**723**	RATIO **9.2%**	BOUND	THRU	**541**	**595**	RATIO **10.8%**
	RIGHT	**22**	**76**	ADT 19,500		RIGHT	**26**	**76**	ADT 19,500
EAST	LEFT	**23**	**54**	EAST LEG	EAST	LEFT	**40**	**121**	EAST LEG
BOUND	THRU	**124**	**179**	RATIO **3.4%**	BOUND	THRU	**101**	**235**	RATIO **4.8%**
	RIGHT	**93**	**134**	ADT 23,700		RIGHT	**76**	**135**	ADT 23,700
WEST	LEFT	**121**	**133**	WEST LEG	WEST	LEFT	**170**	**187**	WEST LEG
BOUND	THRU	**121**	**240**	RATIO **3.3%**	BOUND	THRU	**126**	**358**	RATIO **4.5%**
	RIGHT	**96**	**106**	ADT 24,000		RIGHT	**97**	**148**	ADT 24,000

Palm Drive (NS) / Two Bunch Palms Trail (EW) - #17

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019 24 885 64
< v >
40 ^ ^ 45
182 > < 139
373 v v 259
< ^ >
181 594 188

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019 973 679
v ^
344 < IN = 2974 < 443
595 > OUT = 2974 > 434
v ^
1517 963

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019 24 885 64
< v >
40 ^ ^ 45
182 > < 139
373 v v 259
< ^ >
181 594 188

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008 2805 1630
v ^
526 < IN = 6006 < 603
710 > OUT = 6006 > 155
v ^
3695 1888

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008 18 23
v ^
8 < IN = 59 < 4
8 > OUT = 59 > 3
v ^
25 29

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38 1072 627
PHF FOR TRUCKS: 0.333 v ^
203 < IN = 2302 < 230
272 > OUT = 2302 > 60
v ^
1412 727

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040 2805 1630
v ^
526 < IN = 6006 < 603
710 > OUT = 6006 > 155
v ^
3695 1888

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040 18 23
v ^
8 < IN = 59 < 4
8 > OUT = 59 > 3
v ^
25 29

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38 1072 627
PHF FOR TRUCKS: 0.333 v ^
203 < IN = 2302 < 230
272 > OUT = 2302 > 60
v ^
1412 727

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040 0 0
FACTOR = 1.00 v ^
0 < < 0
0 > > 0
v ^
0 0

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH % 100 70
v ^
30 < IN = 200 < 40
60 > OUT = 140 > 40
v ^
0 0

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS 70 50
v ^
20 < < 30
40 > > 30
v ^
0 0

NEW PROJECTED VOLUMES (PCEs): 2040

1040 730
v ^
360 < < 470
640 > > 460
v ^
1520 960

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019 21 656 103
< v >
98 ^ ^ 93
161 > < 129
228 v v 248
< ^ >
180 1009 150

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019 780 1200
v ^
330 < IN = 3076 < 470
487 > OUT = 3076 > 414
v ^
1132 1339

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019 21 656 103
< v >
98 ^ ^ 93
161 > < 129
228 v v 248
< ^ >
180 1009 150

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008 2839 4027
v ^
382 < IN = 8472 < 392
342 > OUT = 8472 > 848
v ^
3215 4899

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008 28 19
v ^
4 < IN = 54 < 2
2 > OUT = 54 > 2
v ^
29 22

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28 802 1132
PHF FOR TRUCKS: 0.25 v ^
108 < IN = 2386 < 110
96 > OUT = 2386 > 238
v ^
907 1377

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040 3081 3957
v ^
1692 < IN = 11034 < 687
1315 > OUT = 11033 > 1388
v ^
3996 5951

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040 28 20
v ^
16 < IN = 81 < 7
14 > OUT = 81 > 8
v ^
37 32

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28 870 1113
PHF FOR TRUCKS: 0.25 v ^
478 < IN = 3110 < 194
372 > OUT = 3109 > 391
v ^
1128 1674

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040 68 -19
FACTOR = 1.00 v ^
370 < < 84
275 > > 153
v ^
221 297

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH % 80 120
v ^
370 < IN = 740 < 80
280 > OUT = 860 > 150
v ^
220 300

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS 50 80
v ^
240 < < 50
180 > > 100
v ^
140 200

NEW PROJECTED VOLUMES (PCEs): 2040

830 1280
v ^
570 < < 520
670 > > 510
v ^
1270 1540

Palm Drive (NS) / Two Bunch Palms Trail (EW) - #17

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**181**	SOUTH LEG		NORTH	LEFT	**180**	SOUTH LEG	
BOUND	THRU	**594**	IN ...	**960**	BOUND	THRU	**1,009**	IN ...	**1,540**
	RIGHT	**188**	OUT ...	**1,520**		RIGHT	**150**	OUT ...	**1,270**
SOUTH	LEFT	**64**	NORTH LEG		SOUTH	LEFT	**103**	NORTH LEG	
BOUND	THRU	**885**	IN ...	**1,040**	BOUND	THRU	**656**	IN ...	**830**
	RIGHT	**24**	OUT ...	**730**		RIGHT	**21**	OUT ...	**1,280**
EAST	LEFT	**40**	WEST LEG		EAST	LEFT	**98**	WEST LEG	
BOUND	THRU	**182**	IN ...	**640**	BOUND	THRU	**161**	IN ...	**670**
	RIGHT	**373**	OUT ...	**360**		RIGHT	**228**	OUT ...	**570**
WEST	LEFT	**259**	EAST LEG		WEST	LEFT	**248**	EAST LEG	
BOUND	THRU	**139**	IN ...	**470**	BOUND	THRU	**129**	IN ...	**520**
	RIGHT	**45**	OUT ...	**460**		RIGHT	**93**	OUT ...	**510**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**181**	**199**	NORTH LEG	NORTH	LEFT	**180**	**331**	NORTH LEG
BOUND	THRU	**594**	**653**	RATIO **8.8%**	BOUND	THRU	**1,009**	**1,110**	RATIO **10.5%**
	RIGHT	**188**	**207**	ADT 21,000		RIGHT	**150**	**172**	ADT 21,000
SOUTH	LEFT	**64**	**79**	SOUTH LEG	SOUTH	LEFT	**103**	**113**	SOUTH LEG
BOUND	THRU	**885**	**974**	RATIO **11.1%**	BOUND	THRU	**656**	**722**	RATIO **12.0%**
	RIGHT	**24**	**31**	ADT 24,500		RIGHT	**21**	**36**	ADT 24,500
EAST	LEFT	**40**	**55**	EAST LEG	EAST	LEFT	**98**	**129**	EAST LEG
BOUND	THRU	**182**	**213**	RATIO **21.8%**	BOUND	THRU	**161**	**229**	RATIO **23.7%**
	RIGHT	**373**	**410**	ADT 4,600		RIGHT	**228**	**326**	ADT 4,600
WEST	LEFT	**259**	**285**	WEST LEG	WEST	LEFT	**248**	**273**	WEST LEG
BOUND	THRU	**139**	**162**	RATIO **18.1%**	BOUND	THRU	**129**	**203**	RATIO **21.3%**
	RIGHT	**45**	**59**	ADT 5,900		RIGHT	**93**	**102**	ADT 5,900

Palm Drive (NS) / Dillon Road (EW) - #18

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			82	1286	41		
			<	v	>		
	36	^				^	56
	64	>				<	212
	225	v				v	309
			<	^	>		
			109	488	65		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019				1409	580		
				v	^		
	403	<		IN =	2973	<	577
	325	>		OUT =	2973	>	170
				v	^		
				1820	662		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			82	1286	41		
			<	v	>		
	36	^				^	56
	64	>				<	212
	225	v				v	309
			<	^	>		
			109	488	65		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008				3130	1353		
				v	^		
	345	<		IN =	5272	<	528
	317	>		OUT =	5272	>	458
				v	^		
				3116	1297		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008				21	23		
				v	^		
	14	<		IN =	69	<	13
	14	>		OUT =	70	>	14
				v	^		
				19	21		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38				1196	522		
PHF FOR TRUCKS: 0.333				v	^		
	136	<		IN =	2026	<	205
	125	>		OUT =	2027	>	179
				v	^		
				1190	500		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040				3968	2120		
				v	^		
	1918	<		IN =	9524	<	2106
	1852	>		OUT =	9524	>	1248
				v	^		
				4238	1598		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040				23	42		
				v	^		
	23	<		IN =	108	<	24
	28	>		OUT =	110	>	21
				v	^		
				24	33		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38				1515	820		
PHF FOR TRUCKS: 0.333				v	^		
	736	<		IN =	3655	<	808
	713	>		OUT =	3656	>	481
				v	^		
				1618	618		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040				319	298		
FACTOR = 1.00				v	^		
	601	<				<	603
	588	>				>	303
				v	^		
				428	118		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %				320	300		
				v	^		
	600	<		IN =	1630	<	600
	590	>		OUT =	1630	>	300
				v	^		
				430	120		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS				210	200		
				v	^		
	390	<				<	390
	390	>				>	200
				v	^		
				280	80		

NEW PROJECTED VOLUMES (PCEs): 2040

				1620	780		
				v	^		
	790	<				<	970
	720	>				>	370
				v	^		
				2100	740		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			82	695	73		
			<	v	>		
	129	^				^	118
	146	>				<	103
	110	v				v	129
			<	^	>		
			144	1239	199		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019				850	1486		
				v	^		
	329	<		IN =	3167	<	350
	385	>		OUT =	3167	>	418
				v	^		
				934	1582		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			82	695	73		
			<	v	>		
	129	^				^	118
	146	>				<	103
	110	v				v	129
			<	^	>		
			144	1239	199		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008				4211	5732		
				v	^		
	571	<		IN =	11315	<	676
	609	>		OUT =	11315	>	961
				v	^		
				4051	5819		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008				35	22		
				v	^		
	21	<		IN =	95	<	19
	21	>		OUT =	95	>	20
				v	^		
				32	20		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28				1188	1610		
PHF FOR TRUCKS: 0.25				v	^		
	165	<		IN =	3192	<	194
	176	>		OUT =	3192	>	274
				v	^		
				1142	1634		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040				4294	5961		
				v	^		
	3510	<		IN =	16735	<	2496
	3069	>		OUT =	16734	>	3194
				v	^		
				4069	6876		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040				44	24		
				v	^		
	56	<		IN =	155	<	44
	35	>		OUT =	154	>	31
				v	^		
				43	32		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28				1213	1675		
PHF FOR TRUCKS: 0.25				v	^		
	997	<		IN =	4725	<	710
	868	>		OUT =	4724	>	902
				v	^		
				1150	1933		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040				25	65		
FACTOR = 1.00				v	^		
	832	<				<	516
	692	>				>	628
				v	^		
				8	299		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %				90	150		
				v	^		
	830	<		IN =	1600	<	520
	690	>		OUT =	1620	>	630
				v	^		
				10	300		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS				60	100		
				v	^		
	540	<				<	340
	450	>				>	410
				v	^		
				10	200		

NEW PROJECTED VOLUMES (PCEs): 2040

				910	1590		
				v	^		
	870	<				<	690
	840	>				>	830
				v	^		
				940	1780		

Palm Drive (NS) / Dillon Road (EW) - #18

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**109**	SOUTH LEG		NORTH	LEFT	**144**	SOUTH LEG	
BOUND	THRU	**488**	IN ...	**740**	BOUND	THRU	**1,239**	IN ...	**1,780**
	RIGHT	**65**	OUT ...	**2,100**		RIGHT	**199**	OUT ...	**940**
SOUTH	LEFT	**41**	NORTH LEG		SOUTH	LEFT	**73**	NORTH LEG	
BOUND	THRU	**1,286**	IN ...	**1,620**	BOUND	THRU	**695**	IN ...	**910**
	RIGHT	**82**	OUT ...	**780**		RIGHT	**82**	OUT ...	**1,590**
EAST	LEFT	**36**	WEST LEG		EAST	LEFT	**129**	WEST LEG	
BOUND	THRU	**64**	IN ...	**720**	BOUND	THRU	**146**	IN ...	**840**
	RIGHT	**225**	OUT ...	**790**		RIGHT	**110**	OUT ...	**870**
WEST	LEFT	**309**	EAST LEG		WEST	LEFT	**129**	EAST LEG	
BOUND	THRU	**212**	IN ...	**970**	BOUND	THRU	**103**	IN ...	**690**
	RIGHT	**56**	OUT ...	**370**		RIGHT	**118**	OUT ...	**830**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**109**	**128**	NORTH LEG	NORTH	LEFT	**144**	**319**	NORTH LEG
BOUND	THRU	**488**	**540**	RATIO **10.8%**	BOUND	THRU	**1,239**	**1,363**	RATIO **12.6%**
	RIGHT	**65**	**73**	ADT 22,700		RIGHT	**199**	**291**	ADT 22,700
SOUTH	LEFT	**41**	**84**	SOUTH LEG	SOUTH	LEFT	**73**	**115**	SOUTH LEG
BOUND	THRU	**1,286**	**1,415**	RATIO **10.6%**	BOUND	THRU	**695**	**765**	RATIO **11.3%**
	RIGHT	**82**	**173**	ADT 27,300		RIGHT	**82**	**195**	ADT 27,300
EAST	LEFT	**36**	**117**	EAST LEG	EAST	LEFT	**129**	**242**	EAST LEG
BOUND	THRU	**64**	**213**	RATIO **10.1%**	BOUND	THRU	**146**	**424**	RATIO **11.4%**
	RIGHT	**225**	**388**	ADT 13,300		RIGHT	**110**	**176**	ADT 13,300
WEST	LEFT	**309**	**356**	WEST LEG	WEST	LEFT	**129**	**162**	WEST LEG
BOUND	THRU	**212**	**489**	RATIO **11.3%**	BOUND	THRU	**103**	**356**	RATIO **12.8%**
	RIGHT	**56**	**122**	ADT 13,400		RIGHT	**118**	**174**	ADT 13,400

Palm Drive (NS) / 20th Avenue (EW) - #19

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 1 1818 5 < v > 2 ^ ^ 2 1 > < 1 1 v v 75 < ^ > 1 658 16	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 5 889 14 < v > 2 ^ ^ 10 1 > < 1 1 v v 24 < ^ > 4 1570 74
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 1824 662 v ^ 3 < IN = 2581 < 78 4 > OUT = 2581 > 22 v ^ 1894 675	EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 908 1582 v ^ 10 < IN = 2595 < 35 4 > OUT = 2595 > 89 v ^ 914 1648
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 0 0 0	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 1 1818 5 < v > 2 ^ ^ 2 1 > < 1 1 v v 75 < ^ > 1 658 16	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 5 889 14 < v > 2 ^ ^ 10 1 > < 1 1 v v 24 < ^ > 4 1570 74
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 3171 1353 v ^ 141 < IN = 4825 < 179 85 > OUT = 4825 > 119 v ^ 3212 1390	EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 4164 5903 v ^ 166 < IN = 11150 < 301 583 > OUT = 11150 > 789 v ^ 4292 6102
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 19 22 v ^ 3 < IN = 49 < 4 3 > OUT = 49 > 4 v ^ 20 23	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 33 21 v ^ 5 < IN = 68 < 6 7 > OUT = 70 > 9 v ^ 35 22
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 1211 521 PHF FOR TRUCKS: 0.333 v ^ 55 < IN = 1850 < 69 33 > OUT = 1850 > 47 v ^ 1227 536	EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 1174 1658 PHF FOR TRUCKS: 0.25 v ^ 48 < IN = 3139 < 86 165 > OUT = 3140 > 223 v ^ 1211 1714
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 5082 1917 v ^ 1289 < IN = 10827 < 2085 1499 > OUT = 10828 > 954 v ^ 6668 2161	FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 4717 8146 v ^ 1525 < IN = 19067 < 1655 2351 > OUT = 19066 > 3713 v ^ 5682 10344
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 31 42 v ^ 23 < IN = 134 < 14 34 > OUT = 134 > 29 v ^ 40 55	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 55 43 v ^ 82 < IN = 223 < 81 33 > OUT = 223 > 27 v ^ 71 54
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 1941 742 PHF FOR TRUCKS: 0.333 v ^ 497 < IN = 4159 < 797 581 > OUT = 4159 > 372 v ^ 2547 839	FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 1335 2292 PHF FOR TRUCKS: 0.25 v ^ 448 < IN = 5395 < 484 667 > OUT = 5394 > 1046 v ^ 1609 2910
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 730 221 FACTOR = 1.00 v ^ 443 < < 728 548 > > 326 v ^ 1320 304	RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 160 634 FACTOR = 1.00 v ^ 400 < < 398 502 > > 823 v ^ 398 1196
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 730 220 v ^ 440 < IN = 2310 < 730 550 > OUT = 2310 > 330 v ^ 1320 300	ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 160 630 v ^ 400 < IN = 2260 < 400 500 > OUT = 2250 > 820 v ^ 400 1200
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 480 140 v ^ 290 < < 480 360 > > 220 v ^ 870 200	PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 110 410 v ^ 260 < < 260 330 > > 540 v ^ 260 790
NEW PROJECTED VOLUMES (PCEs): 2040 2300 800 v ^ 290 < < 560 360 > > 240 v ^ 2760 880	NEW PROJECTED VOLUMES (PCEs): 2040 1020 1990 v ^ 270 < < 300 330 > > 630 v ^ 1170 2440

Palm Drive (NS) / 20th Avenue (EW) - #19

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**4**	SOUTH LEG	
BOUND	THRU	**658**	IN ...	**880**	BOUND	THRU	**1,570**	IN ...	**2,440**
	RIGHT	**16**	OUT ...	**2,760**		RIGHT	**74**	OUT ...	**1,170**
SOUTH	LEFT	**5**	NORTH LEG		SOUTH	LEFT	**14**	NORTH LEG	
BOUND	THRU	**1,818**	IN ...	**2,300**	BOUND	THRU	**889**	IN ...	**1,020**
	RIGHT	**1**	OUT ...	**800**		RIGHT	**5**	OUT ...	**1,990**
EAST	LEFT	**2**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**1**	IN ...	**360**	BOUND	THRU	**1**	IN ...	**330**
	RIGHT	**1**	OUT ...	**290**		RIGHT	**1**	OUT ...	**270**
WEST	LEFT	**75**	EAST LEG		WEST	LEFT	**24**	EAST LEG	
BOUND	THRU	**1**	IN ...	**560**	BOUND	THRU	**1**	IN ...	**300**
	RIGHT	**2**	OUT ...	**240**		RIGHT	**10**	OUT ...	**630**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**1**	**77**	NORTH LEG	NORTH	LEFT	**4**	**111**	NORTH LEG
BOUND	THRU	**658**	**724**	RATIO **10.4%**	BOUND	THRU	**1,570**	**1,873**	RATIO **10.2%**
	RIGHT	**16**	**64**	ADT 30,100		RIGHT	**74**	**412**	ADT 30,100
SOUTH	LEFT	**5**	**11**	SOUTH LEG	SOUTH	LEFT	**14**	**38**	SOUTH LEG
BOUND	THRU	**1,818**	**2,275**	RATIO **15.5%**	BOUND	THRU	**889**	**978**	RATIO **15.4%**
	RIGHT	**1**	**41**	ADT 23,400		RIGHT	**5**	**67**	ADT 23,400
EAST	LEFT	**2**	**89**	EAST LEG	EAST	LEFT	**2**	**77**	EAST LEG
BOUND	THRU	**1**	**166**	RATIO **8.1%**	BOUND	THRU	**1**	**180**	RATIO **9.4%**
	RIGHT	**1**	**97**	ADT 9,900		RIGHT	**1**	**70**	ADT 9,900
WEST	LEFT	**75**	**388**	WEST LEG	WEST	LEFT	**24**	**171**	WEST LEG
BOUND	THRU	**1**	**171**	RATIO **2.3%**	BOUND	THRU	**1**	**92**	RATIO **2.1%**
	RIGHT	**2**	**5**	ADT 27,800		RIGHT	**10**	**39**	ADT 27,800

Palm Drive (NS) / Varner Road (EW) - #20

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 1859 35
< v >
0 ^ ^ 15
0 > < 0
0 v v 55
< ^ >
0 663 27

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
1894 678
v ^
0 < IN = 2654 < 70
0 > OUT = 2654 > 62
v ^
1914 690

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 1859 35
< v >
0 ^ ^ 15
0 > < 0
0 v v 55
< ^ >
0 663 27

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
3245 1412
v ^
0 < IN = 4660 < 20
0 > OUT = 4660 > 375
v ^
2873 1395

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
20 23
v ^
0 < IN = 43 < 0
0 > OUT = 43 > 2
v ^
18 23

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1240 544
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 1785 < 8
0 > OUT = 1785 > 143
v ^
1098 538

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
7129 2212
v ^
0 < IN = 9522 < 652
0 > OUT = 9522 > 1316
v ^
5994 1741

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
44 56
v ^
0 < IN = 103 < 19
0 > OUT = 103 > 10
v ^
37 40

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2724 859
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 3653 < 254
0 > OUT = 3653 > 503
v ^
2290 675

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1484 315
FACTOR = 1.00 v ^
0 < < 246
0 > > 360
v ^
1192 137

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1480 310
v ^
0 < IN = 1870 < 250
0 > OUT = 1860 > 360
v ^
1190 140

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 970 200
v ^
0 < < 160
0 > > 240
v ^
780 90

NEW PROJECTED VOLUMES (PCEs): 2040
2860 880
v ^
0 < < 230
0 > > 300
v ^
2690 780

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 894 20
< v >
0 ^ ^ 29
0 > < 0
0 v v 35
< ^ >
0 1618 36

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
914 1647
v ^
0 < IN = 2632 < 64
0 > OUT = 2632 > 56
v ^
929 1654

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 894 20
< v >
0 ^ ^ 29
0 > < 0
0 v v 35
< ^ >
0 1618 36

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
4344 6159
v ^
0 < IN = 10505 < 1039
0 > OUT = 10505 > 316
v ^
4030 5122

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
35 22
v ^
0 < IN = 58 < 3
0 > OUT = 57 > 2
v ^
33 20

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 1225 1730
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 2956 < 292
0 > OUT = 2956 > 89
v ^
1137 1439

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
6071 11037
v ^
0 < IN = 17409 < 2605
0 > OUT = 17410 > 1677
v ^
4696 8733

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
76 58
v ^
0 < IN = 139 < 17
0 > OUT = 139 > 25
v ^
56 46

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 1719 3105
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 4909 < 734
0 > OUT = 4910 > 476
v ^
1329 2457

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 494 1375
FACTOR = 1.00 v ^
0 < < 442
0 > > 387
v ^
192 1018

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 490 1370
v ^
0 < IN = 1950 < 440
0 > OUT = 1950 > 390
v ^
190 1020

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 320 900
v ^
0 < < 290
0 > > 260
v ^
120 670

NEW PROJECTED VOLUMES (PCEs): 2040
1230 2550
v ^
0 < < 350
0 > > 320
v ^
1050 2320

Palm Drive (NS) / Varner Road (EW) - #20

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**663**	IN ...	**780**	BOUND	THRU	**1,618**	IN ...	**2,320**
	RIGHT	**27**	OUT ...	**2,690**		RIGHT	**36**	OUT ...	**1,050**
SOUTH	LEFT	**35**	NORTH LEG		SOUTH	LEFT	**20**	NORTH LEG	
BOUND	THRU	**1,859**	IN ...	**2,860**	BOUND	THRU	**894**	IN ...	**1,230**
	RIGHT	**0**	OUT ...	**880**		RIGHT	**0**	OUT ...	**2,550**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST	LEFT	**55**	EAST LEG		WEST	LEFT	**35**	EAST LEG	
BOUND	THRU	**0**	IN ...	**230**	BOUND	THRU	**0**	IN ...	**350**
	RIGHT	**15**	OUT ...	**300**		RIGHT	**29**	OUT ...	**320**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**0**	**0**	NORTH LEG		NORTH	LEFT	**0**	**0**	NORTH LEG	
BOUND	THRU	**663**	**776**	RATIO	**14.6%**	BOUND	THRU	**1,618**	**2,279**	RATIO	**14.8%**
	RIGHT	**27**	**55**	ADT	25,300		RIGHT	**36**	**120**	ADT	25,300
SOUTH	LEFT	**35**	**245**	SOUTH LEG		SOUTH	LEFT	**20**	**200**	SOUTH LEG	
BOUND	THRU	**1,859**	**2,560**	RATIO	**17.7%**	BOUND	THRU	**894**	**983**	RATIO	**17.4%**
	RIGHT	**0**	**0**	ADT	19,900		RIGHT	**0**	**0**	ADT	19,900
EAST	LEFT	**0**	**0**	EAST LEG		EAST	LEFT	**0**	**0**	EAST LEG	
BOUND	THRU	**0**	**0**	RATIO	**7.9%**	BOUND	THRU	**0**	**0**	RATIO	**9.9%**
	RIGHT	**0**	**0**	ADT	6,800		RIGHT	**0**	**0**	ADT	6,800
WEST	LEFT	**55**	**130**	WEST LEG		WEST	LEFT	**35**	**84**	WEST LEG	
BOUND	THRU	**0**	**0**	RATIO	**-**	BOUND	THRU	**0**	**0**	RATIO	**-**
	RIGHT	**15**	**104**	ADT	0		RIGHT	**29**	**271**	ADT	0

Mountain View Road (NS) / Hacienda Avenue (EW) - #21

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 7 55 53 < v > 6 ^ ^ 37 232 > < 263 119 v v 81 < ^ > 94 56 34	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 13 34 24 < v > 9 ^ ^ 39 213 > < 192 121 v v 33 < ^ > 162 89 54
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 115 99 v ^ 364 < IN = 1037 < 381 357 > OUT = 1037 > 319 v ^ 255 184	EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 71 137 v ^ 367 < IN = 983 < 264 343 > OUT = 983 > 291 v ^ 188 305
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 0 0 0	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 7 55 53 < v > 6 ^ ^ 37 232 > < 263 119 v v 81 < ^ > 94 56 34	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 13 34 24 < v > 9 ^ ^ 39 213 > < 192 121 v v 33 < ^ > 162 89 54
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 54 8 v ^ 487 < IN = 1346 < 378 798 > OUT = 1347 > 405 v ^ 447 116	EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 248 500 v ^ 1475 < IN = 3338 < 1065 1121 > OUT = 3338 > 812 v ^ 551 904
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 0 0 v ^ 6 < IN = 12 < 5 6 > OUT = 12 > 5 v ^ 1 1	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 3 5 v ^ 8 < IN = 23 < 10 8 > OUT = 23 > 8 v ^ 2 2
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 21 3 PHF FOR TRUCKS: 0.333 v ^ 187 < IN = 515 < 145 305 > OUT = 516 > 156 v ^ 170 44	EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 70 141 PHF FOR TRUCKS: 0.25 v ^ 415 < IN = 940 < 301 316 > OUT = 940 > 229 v ^ 155 254
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 1683 882 v ^ 382 < IN = 3972 < 833 1025 > OUT = 3972 > 1282 v ^ 1426 431	FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 2162 3494 v ^ 3517 < IN = 10713 < 3926 1541 > OUT = 10715 > 2224 v ^ 1480 3084
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 18 11 v ^ 5 < IN = 44 < 11 10 > OUT = 43 > 22 v ^ 5 5	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 35 23 v ^ 30 < IN = 111 < 44 23 > OUT = 111 > 50 v ^ 8 9
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 646 339 PHF FOR TRUCKS: 0.333 v ^ 147 < IN = 1524 < 320 393 > OUT = 1524 > 494 v ^ 544 165	FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 614 984 PHF FOR TRUCKS: 0.25 v ^ 992 < IN = 3027 < 1110 437 > OUT = 3028 > 635 v ^ 416 866
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 625 336 FACTOR = 1.00 v ^ -40 < < 175 88 > > 339 v ^ 373 121	RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 544 843 FACTOR = 1.00 v ^ 577 < < 810 121 > > 406 v ^ 262 612
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 630 340 v ^ 40 < IN = 1010 < 170 90 > OUT = 1090 > 340 v ^ 370 120	ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 540 840 v ^ 580 < IN = 2080 < 810 120 > OUT = 2090 > 410 v ^ 260 610
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 410 220 v ^ 30 < < 110 60 > > 220 v ^ 240 80	PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 350 550 v ^ 380 < < 530 80 > > 270 v ^ 170 400
NEW PROJECTED VOLUMES (PCEs): 2040 530 320 v ^ 390 < < 490 420 > > 540 v ^ 500 260	NEW PROJECTED VOLUMES (PCEs): 2040 420 690 v ^ 750 < < 790 420 > > 560 v ^ 360 710

Mountain View Road (NS) / Hacienda Avenue (EW) - #21

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**94**	SOUTH LEG		NORTH	LEFT	**162**	SOUTH LEG	
BOUND	THRU	**56**	IN ...	**260**	BOUND	THRU	**89**	IN ...	**710**
	RIGHT	**34**	OUT ...	**500**		RIGHT	**54**	OUT ...	**360**
SOUTH	LEFT	**53**	NORTH LEG		SOUTH	LEFT	**24**	NORTH LEG	
BOUND	THRU	**55**	IN ...	**530**	BOUND	THRU	**34**	IN ...	**420**
	RIGHT	**7**	OUT ...	**320**		RIGHT	**13**	OUT ...	**690**
EAST	LEFT	**6**	WEST LEG		EAST	LEFT	**9**	WEST LEG	
BOUND	THRU	**232**	IN ...	**420**	BOUND	THRU	**213**	IN ...	**420**
	RIGHT	**119**	OUT ...	**390**		RIGHT	**121**	OUT ...	**750**
WEST	LEFT	**81**	EAST LEG		WEST	LEFT	**33**	EAST LEG	
BOUND	THRU	**263**	IN ...	**490**	BOUND	THRU	**192**	IN ...	**790**
	RIGHT	**37**	OUT ...	**540**		RIGHT	**39**	OUT ...	**560**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**94**	**103**	NORTH LEG	NORTH	LEFT	**162**	**230**	NORTH LEG
BOUND	THRU	**56**	**161**	RATIO **5.3%**	BOUND	THRU	**89**	**385**	RATIO **6.8%**
	RIGHT	**34**	**37**	ADT 16,400		RIGHT	**54**	**102**	ADT 16,400
SOUTH	LEFT	**53**	**246**	SOUTH LEG	SOUTH	LEFT	**24**	**176**	SOUTH LEG
BOUND	THRU	**55**	**266**	RATIO **7.4%**	BOUND	THRU	**34**	**175**	RATIO **10.2%**
	RIGHT	**7**	**32**	ADT 10,800		RIGHT	**13**	**72**	ADT 10,800
EAST	LEFT	**6**	**23**	EAST LEG	EAST	LEFT	**9**	**27**	EAST LEG
BOUND	THRU	**232**	**265**	RATIO **16.1%**	BOUND	THRU	**213**	**282**	RATIO **20.6%**
	RIGHT	**119**	**142**	ADT 6,600		RIGHT	**121**	**133**	ADT 6,600
WEST	LEFT	**81**	**92**	WEST LEG	WEST	LEFT	**33**	**72**	WEST LEG
BOUND	THRU	**263**	**289**	RATIO **53.4%**	BOUND	THRU	**192**	**448**	RATIO **74.5%**
	RIGHT	**37**	**135**	ADT 1,600		RIGHT	**39**	**278**	ADT 1,600

Mountain View Road (NS) / Dillon Road (EW) - #22

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 103 350 4 < v > 28 ^ ^ 14 75 > < 189 119 v v 192 < ^ > 32 90 48	**EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):** 2019 48 150 18 < v > 75 ^ ^ 11 181 > < 144 59 v v 88 < ^ > 118 260 210
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 457 132 v ^ 324 < IN = 1244 < 395 222 > OUT = 1244 > 127 v ^ 661 170	**EXISTING PEAK HOUR COUNT YEAR (AUTOS):** 2019 216 346 v ^ 310 < IN = 1362 < 243 315 > OUT = 1362 > 409 v ^ 297 588
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 0 0 0	**EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):** 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 103 350 4 < v > 28 ^ ^ 14 75 > < 189 119 v v 192 < ^ > 32 90 48	**TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):** 2019 48 150 18 < v > 75 ^ ^ 11 181 > < 144 59 v v 88 < ^ > 118 260 210
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 916 340 v ^ 346 < IN = 2269 < 541 406 > OUT = 2270 > 490 v ^ 1094 406	**EXISTING PEAK PERIOD MODEL YEAR (AUTO):** 2008 1146 1971 v ^ 799 < IN = 5105 < 1125 843 > OUT = 5105 > 897 v ^ 1438 1991
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 3 5 v ^ 10 < IN = 32 < 12 12 > OUT = 31 > 12 v ^ 4 5	**EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):** 2008 4 3 v ^ 17 < IN = 43 < 20 16 > OUT = 43 > 17 v ^ 6 3
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 349 131 PHF FOR TRUCKS: 0.333 v ^ 135 < IN = 873 < 210 158 > OUT = 873 > 190 v ^ 417 156	**EXISTING PEAK HOUR MODEL YEAR (PCEs):** PHF FOR CARS: 0.28 322 553 PHF FOR TRUCKS: 0.25 v ^ 228 < IN = 1440 < 320 240 > OUT = 1440 > 255 v ^ 404 558
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 3246 1043 v ^ 1378 < IN = 6702 < 1293 1080 > OUT = 6703 > 780 v ^ 3502 1083	**FUTURE PEAK PERIOD MODEL YEAR (AUTO):** 2040 3066 5673 v ^ 2155 < IN = 13021 < 1435 2837 > OUT = 13022 > 2189 v ^ 3005 5683
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 14 18 v ^ 14 < IN = 57 < 11 13 > OUT = 56 > 12 v ^ 12 19	**FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):** 2040 25 18 v ^ 34 < IN = 92 < 26 25 > OUT = 92 > 19 v ^ 21 16
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 1238 402 PHF FOR TRUCKS: 0.333 v ^ 528 < IN = 2566 < 495 415 > OUT = 2566 > 300 v ^ 1335 418	**FUTURE PEAK HOUR MODEL YEAR (PCEs):** PHF FOR CARS: 0.28 865 1593 PHF FOR TRUCKS: 0.25 v ^ 612 < IN = 3669 < 408 801 > OUT = 3669 > 618 v ^ 847 1595
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 889 271 FACTOR = 1.00 v ^ 393 < < 285 256 > > 110 v ^ 918 262	**RAW GROWTH (PCEs):** 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 543 1040 FACTOR = 1.00 v ^ 384 < < 88 561 > > 362 v ^ 443 1037
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 890 270 v ^ 390 < IN = 1700 < 290 260 > OUT = 1690 > 110 v ^ 920 260	**ADJUSTED GROWTH (PCEs):** 2008 TO 2040 10 MINIMUM GROWTH % 540 1040 v ^ 380 < IN = 2230 < 90 560 > OUT = 2220 > 360 v ^ 440 1040
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 580 180 v ^ 260 < < 190 170 > > 70 v ^ 600 170	**PRORATED GROWTH (PCEs):** 2019 TO 2040 21 YEARS 350 680 v ^ 250 < < 60 370 > > 240 v ^ 290 680
NEW PROJECTED VOLUMES (PCEs): 2040 1040 310 v ^ 580 < < 590 390 > > 200 v ^ 1260 340	**NEW PROJECTED VOLUMES (PCEs):** 2040 570 1030 v ^ 560 < < 300 690 > > 650 v ^ 590 1270

Mountain View Road (NS) / Dillon Road (EW) - #22

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**32**	SOUTH LEG		NORTH	LEFT	**118**	SOUTH LEG	
BOUND	THRU	**90**	IN ...	**340**	BOUND	THRU	**260**	IN ...	**1,270**
	RIGHT	**48**	OUT ...	**1,260**		RIGHT	**210**	OUT ...	**590**
SOUTH	LEFT	**4**	NORTH LEG		SOUTH	LEFT	**18**	NORTH LEG	
BOUND	THRU	**350**	IN ...	**1,040**	BOUND	THRU	**150**	IN ...	**570**
	RIGHT	**103**	OUT ...	**310**		RIGHT	**48**	OUT ...	**1,030**
EAST	LEFT	**28**	WEST LEG		EAST	LEFT	**75**	WEST LEG	
BOUND	THRU	**75**	IN ...	**390**	BOUND	THRU	**181**	IN ...	**690**
	RIGHT	**119**	OUT ...	**580**		RIGHT	**59**	OUT ...	**560**
WEST	LEFT	**192**	EAST LEG		WEST	LEFT	**88**	EAST LEG	
BOUND	THRU	**189**	IN ...	**590**	BOUND	THRU	**144**	IN ...	**300**
	RIGHT	**14**	OUT ...	**200**		RIGHT	**11**	OUT ...	**650**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**32**	**54**	NORTH LEG		NORTH	LEFT	**118**	**228**	NORTH LEG	
BOUND	THRU	**90**	**212**	RATIO	**8.1%**	BOUND	THRU	**260**	**746**	RATIO	**9.6%**
	RIGHT	**48**	**73**	ADT	16,600		RIGHT	**210**	**297**	ADT	16,600
SOUTH	LEFT	**4**	**8**	SOUTH LEG		SOUTH	LEFT	**18**	**41**	SOUTH LEG	
BOUND	THRU	**350**	**784**	RATIO	**10.1%**	BOUND	THRU	**150**	**381**	RATIO	**11.8%**
	RIGHT	**103**	**242**	ADT	15,800		RIGHT	**48**	**147**	ADT	15,800
EAST	LEFT	**28**	**69**	EAST LEG		EAST	LEFT	**75**	**263**	EAST LEG	
BOUND	THRU	**75**	**119**	RATIO	**20.7%**	BOUND	THRU	**181**	**312**	RATIO	**25.1%**
	RIGHT	**119**	**201**	ADT	3,800		RIGHT	**59**	**115**	ADT	3,800
WEST	LEFT	**192**	**275**	WEST LEG		WEST	LEFT	**88**	**97**	WEST LEG	
BOUND	THRU	**189**	**284**	RATIO	**14.9%**	BOUND	THRU	**144**	**185**	RATIO	**19.2%**
	RIGHT	**14**	**29**	ADT	6,500		RIGHT	**11**	**21**	ADT	6,500

Mountain View Road (NS) / Varner Road (EW) - #23	
MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 57 0 690	2019 26 0 275
< v >	< v >
11 ^ ^ 171	24 ^ ^ 581
50 > < 17	42 > < 61
0 v v 0	0 v v 0
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 747 182	2019 301 605
v ^	v ^
74 < IN = 996 < 188	87 < IN = 1009 < 642
61 > OUT = 996 > 740	66 > OUT = 1009 > 317
v ^	v ^
0 0	0 0
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 57 0 690	2019 26 0 275
< v >	< v >
11 ^ ^ 171	24 ^ ^ 581
50 > < 17	42 > < 61
0 v v 0	0 v v 0
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1352 491	2008 1799 2728
v ^	v ^
22 < IN = 2241 < 513	1032 < IN = 5880 < 3759
376 > OUT = 2241 > 1728	322 > OUT = 5879 > 2119
v ^	v ^
0 0	0 0
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 6 7	2008 9 6
v ^	v ^
0 < IN = 15 < 7	3 < IN = 20 < 9
2 > OUT = 15 > 8	2 > OUT = 21 > 12
v ^	v ^
0 0	0 0
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 516 189	PHF FOR CARS: 0.28 506 765
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
8 < IN = 857 < 197	290 < IN = 1651 < 1055
144 > OUT = 857 > 659	91 > OUT = 1651 > 596
v ^	v ^
0 0	0 0
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 5687 1313	2040 4112 9637
v ^	v ^
836 < IN = 8699 < 1834	2422 < IN = 17730 < 7721
1063 > OUT = 8699 > 5382	1885 > OUT = 17730 > 5128
v ^	v ^
1168 115	543 4012
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 22 20	2040 31 31
v ^	v ^
20 < IN = 71 < 38	18 < IN = 103 < 32
10 > OUT = 71 > 25	25 > OUT = 104 > 51
v ^	v ^
6 1	4 15
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2168 506	PHF FOR CARS: 0.28 1159 2706
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
324 < IN = 3329 < 710	683 < IN = 4990 < 2170
407 > OUT = 3329 > 2053	534 > OUT = 4990 > 1449
v ^	v ^
446 44	153 1127
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1653 317	CONVERSION OF TRUCKS TO: 2040 653 1941
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
316 < < 512	393 < < 1115
264 > > 1394	443 > > 852
v ^	v ^
446 44	153 1127
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1650 320	10 MINIMUM GROWTH % 650 1940
v ^	v ^
320 < IN = 2460 < 510	390 < IN = 3340 < 1120
260 > OUT = 2480 > 1390	440 > OUT = 3330 > 850
v ^	v ^
450 40	150 1130
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 1080 210	21 YEARS 430 1270
v ^	v ^
210 < < 330	260 < < 740
170 > > 910	290 > > 560
v ^	v ^
300 30	100 740
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
1830 390	730 1880
v ^	v ^
280 < < 520	350 < < 1380
230 > > 1650	360 > > 880
v ^	v ^
300 30	100 740

Mountain View Road (NS) / Varner Road (EW) - #23

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**30**	BOUND	THRU	**0**	IN ...	**740**
	RIGHT	**0**	OUT ...	**300**		RIGHT	**0**	OUT ...	**100**
SOUTH	LEFT	**690**	NORTH LEG		SOUTH	LEFT	**275**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**1,830**	BOUND	THRU	**0**	IN ...	**730**
	RIGHT	**57**	OUT ...	**390**		RIGHT	**26**	OUT ...	**1,880**
EAST	LEFT	**11**	WEST LEG		EAST	LEFT	**24**	WEST LEG	
BOUND	THRU	**50**	IN ...	**230**	BOUND	THRU	**42**	IN ...	**360**
	RIGHT	**0**	OUT ...	**280**		RIGHT	**0**	OUT ...	**350**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**17**	IN ...	**520**	BOUND	THRU	**61**	IN ...	**1,380**
	RIGHT	**171**	OUT ...	**1,650**		RIGHT	**581**	OUT ...	**880**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **9.3%**	BOUND	THRU	**0**	**0**	RATIO **12.7%**
	RIGHT	**0**	**0**	ADT 21,900		RIGHT	**0**	**0**	ADT 21,900
SOUTH	LEFT	**690**	**1,467**	SOUTH LEG	SOUTH	LEFT	**275**	**710**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**57**	**187**	ADT 6,000		RIGHT	**26**	**188**	ADT 6,000
EAST	LEFT	**11**	**24**	EAST LEG	EAST	LEFT	**24**	**282**	EAST LEG
BOUND	THRU	**50**	**183**	RATIO **5.8%**	BOUND	THRU	**42**	**170**	RATIO **7.2%**
	RIGHT	**0**	**0**	ADT 36,600		RIGHT	**0**	**0**	ADT 36,600
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**17**	**93**	RATIO **1.6%**	BOUND	THRU	**61**	**162**	RATIO **2.7%**
	RIGHT	**171**	**366**	ADT 29,900		RIGHT	**581**	**1,598**	ADT 29,900

Long Canyon Road (NS) / Dillon Road (EW) - #22

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 26 3 83	2019 23 3 117
< v >	< v >
30 ^ ^ 106	31 ^ ^ 80
124 > < 317	370 > < 210
12 v v 3	4 v v 2
< ^ >	< ^ >
0 1 1	9 6 6
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 112 137	2019 143 117
v ^	v ^
343 < IN = 706 < 426	242 < IN = 861 < 292
166 > OUT = 706 > 208	405 > OUT = 861 > 493
v ^	v ^
18 2	9 21
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 26 3 83	2019 23 3 117
< v >	< v >
30 ^ ^ 106	31 ^ ^ 80
124 > < 317	370 > < 210
12 v v 3	4 v v 2
< ^ >	< ^ >
0 1 1	9 6 6
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 326 171	2008 425 1037
v ^	v ^
540 < IN = 1420 < 599	1125 < IN = 3513 < 1998
486 > OUT = 1419 > 685	896 > OUT = 3513 > 1316
v ^	v ^
23 9	35 194
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 3 3	2008 5 8
v ^	v ^
12 < IN = 28 < 13	20 < IN = 48 < 26
12 > OUT = 29 > 14	16 > OUT = 49 > 20
v ^	v ^
0 0	1 1
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 125 66	PHF FOR CARS: 0.28 120 292
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
209 < IN = 549 < 232	320 < IN = 996 < 566
189 > OUT = 549 > 265	255 > OUT = 996 > 373
v ^	v ^
9 3	10 55
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 953 382	2040 554 1274
v ^	v ^
305 < IN = 2491 < 594	1511 < IN = 6954 < 2673
943 > OUT = 2491 > 1802	1655 > OUT = 6954 > 3587
v ^	v ^
2 1	582 2072
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 18 6	2040 5 9
v ^	v ^
4 < IN = 36 < 10	26 < IN = 61 < 31
8 > OUT = 35 > 25	16 > OUT = 62 > 22
v ^	v ^
0 0	5 9
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 368 147	PHF FOR CARS: 0.28 156 359
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
117 < IN = 959 < 229	430 < IN = 1962 < 756
361 > OUT = 958 > 693	467 > OUT = 1963 > 1010
v ^	v ^
1 0	164 582
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 243 81	CONVERSION OF TRUCKS TO: 2040 36 67
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
-92 < < -3	110 < < 190
172 > > 428	213 > > 636
v ^	v ^
-8 -3	154 528
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 240 80	10 MINIMUM GROWTH % 40 70
v ^	v ^
30 < IN = 450 < 40	110 < IN = 970 < 190
170 > OUT = 540 > 430	210 > OUT = 970 > 640
v ^	v ^
0 0	150 530
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 160 50	21 YEARS 30 50
v ^	v ^
20 < < 30	70 < < 120
110 > > 280	140 > > 420
v ^	v ^
0 0	100 350
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
270 190	170 170
v ^	v ^
360 < < 460	310 < < 410
280 > > 490	550 > > 910
v ^	v ^
20 0	110 370

Long Canyon Road (NS) / Dillon Road (EW) - #22

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**9**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**0**	BOUND	THRU	**6**	IN ...	**370**
	RIGHT	**1**	OUT ...	**20**		RIGHT	**6**	OUT ...	**110**
SOUTH	LEFT	**83**	NORTH LEG		SOUTH	LEFT	**117**	NORTH LEG	
BOUND	THRU	**3**	IN ...	**270**	BOUND	THRU	**3**	IN ...	**170**
	RIGHT	**26**	OUT ...	**190**		RIGHT	**23**	OUT ...	**170**
EAST	LEFT	**30**	WEST LEG		EAST	LEFT	**31**	WEST LEG	
BOUND	THRU	**124**	IN ...	**280**	BOUND	THRU	**370**	IN ...	**550**
	RIGHT	**12**	OUT ...	**360**		RIGHT	**4**	OUT ...	**310**
WEST	LEFT	**3**	EAST LEG		WEST	LEFT	**2**	EAST LEG	
BOUND	THRU	**317**	IN ...	**460**	BOUND	THRU	**210**	IN ...	**410**
	RIGHT	**106**	OUT ...	**490**		RIGHT	**80**	OUT ...	**910**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**0**	**0**	NORTH LEG		NORTH	LEFT	**9**	**70**	NORTH LEG	
BOUND	THRU	**1**	**1**	RATIO	**95.6%**	BOUND	THRU	**6**	**55**	RATIO	**77.2%**
	RIGHT	**1**	**1**	ADT	500		RIGHT	**6**	**246**	ADT	500
SOUTH	LEFT	**83**	**245**	SOUTH LEG		SOUTH	LEFT	**117**	**147**	SOUTH LEG	
BOUND	THRU	**3**	**5**	RATIO	**0.6%**	BOUND	THRU	**3**	**19**	RATIO	**12.6%**
	RIGHT	**26**	**37**	ADT	3,800		RIGHT	**23**	**25**	ADT	3,800
EAST	LEFT	**30**	**40**	EAST LEG		EAST	LEFT	**31**	**34**	EAST LEG	
BOUND	THRU	**124**	**245**	RATIO	**9.5%**	BOUND	THRU	**370**	**517**	RATIO	**12.5%**
	RIGHT	**12**	**13**	ADT	10,500		RIGHT	**4**	**29**	ADT	10,500
WEST	LEFT	**3**	**3**	WEST LEG		WEST	LEFT	**2**	**61**	WEST LEG	
BOUND	THRU	**317**	**349**	RATIO	**8.6%**	BOUND	THRU	**210**	**235**	RATIO	**11.4%**
	RIGHT	**106**	**150**	ADT	8,000		RIGHT	**80**	**106**	ADT	8,000

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
SR-62 (NS) at Indian Canyon Dr (EW) - #1	North	19,252	**15,000**	50,006	36,100
	South	10,932	**29,000**	27,627	40,500
	East	8,320	**39,200**	22,379	48,900
	West	-	**27,000**	-	29,700
SR-62 (NS) at Pierson Blvd East (EW) - #2	North	6,273	**28,800**	13,939	34,100
	South	9,136	**28,800**	22,728	38,100
	East	4,985	**500**	21,841	12,100
	West	4,263	**-**	23,390	13,100
SR-62 (NS) at Pierson Blvd West (EW) - #2	North	4,659	**28,800**	12,650	34,300
	South	6,973	**28,800**	23,495	40,200
	East	4,263	**500**	23,390	13,600
	West	-	**-**	21,969	15,100
SR-62 (NS) at Dillon Rd (EW) - #3	North	16,109	**-**	46,223	20,700
	South	18,089	**-**	46,201	19,300
	East	3,111	**38,800**	20,984	51,100
	West	-	**38,800**	-	42,700
Indian Canyon Dr (NS) at Mission Lakes Blvd (EW) - #4	North	8,067	**8,900**	21,890	18,400
	South	13,862	**200**	26,441	8,800
	East	7,136	**32,100**	16,572	38,600
	West	-	**39,200**	16,563	50,600
Indian Canyon Dr (NS) at Pierson Blvd (EW) - #5	North	13,862	**-**	26,441	8,600
	South	13,690	**-**	30,747	11,700
	East	6,441	**32,100**	15,179	38,100
	West	4,836	**32,100**	17,651	40,900
Indian Canyon Dr (NS) at 14th Ave (EW) - #6	North	14,155	**26,600**	32,230	39,000
	South	14,155	**26,600**	42,206	45,900
	East	-	**25,700**	2,410	28,300
	West	-	**24,000**	-	26,400
Indian Canyon Dr (NS) at Dillon Rd (EW) - #7	North	14,751	**28,000**	42,786	47,300
	South	17,524	**28,600**	44,063	46,800
	East	6,207	**12,300**	20,583	22,200
	West	3,417	**7,500**	16,914	16,800
Indian Canyon Dr (NS) at 20th Ave (EW) - #8	North	20,284	**25,000**	53,238	47,700
	South	23,576	**29,600**	76,276	65,800
	East	2,239	**26,900**	16,019	36,400
	West	1,118	**16,100**	5,681	19,200
Little Morongo Rd (NS) at Mission Lakes Blvd (EW) - #9	North	4,721	**22,900**	4,892	25,200
	South	3,456	**18,900**	15,199	27,000
	East	1,058	**1,200**	8,631	6,400
	West	3,441	**7,300**	13,108	13,900

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
Little Morongo Rd (NS) at Pierson Blvd (EW) - #10	North	3,456	19,200	15,199	27,300
	South	2,218	-	16,309	9,700
	East	9,478	20,000	17,753	25,700
	West	7,920	32,000	14,624	36,600
Little Morongo Rd (NS) at Two Bunch Plams Trail (EW) - #11	North	2,344	12,600	16,907	22,600
	South	3,161	10,400	20,717	22,500
	East	1,122	24,900	4,812	27,400
	West	-	25,300	5,089	28,800
Little Mornogo Rd (NS) at Dillion Ave (EW) - #12	North	3,755	9,500	19,247	20,200
	South	1,879	10,000	19,852	22,400
	East	4,803	7,700	23,631	20,600
	West	6,013	7,500	19,066	16,500
Little Morongo Rd (NS) at 20th Ave (EW) - #13	North	1,063	11,300	11,517	18,500
	South	-	11,100	-	12,200
	East	1,206	2,300	13,888	11,000
	West	2,239	1,600	16,980	11,700
Palm Dr (NS) at Mision Lakes Blvd (EW) - #14	North	-	11,000	-	12,100
	South	3,073	12,100	11,480	17,900
	East	-	3,900	-	4,300
	West	3,029	3,500	11,480	9,300
Palm Dr (NS) at Pierson Blvd (EW) - #15	North	9,528	11,600	19,972	18,800
	South	16,838	14,300	17,822	15,700
	East	12,288	6,000	17,564	9,600
	West	14,711	4,400	15,349	4,800
Palm Dr (NS) at Hacienda Ave (EW) - #16	North	14,340	13,200	18,489	16,100
	South	19,166	17,400	22,253	19,500
	East	1,785	21,300	5,332	23,700
	West	6,577	18,700	14,246	24,000
Palm Dr (NS) at Two Bunch Palms Trail (EW) - #17	North	20,186	17,300	25,535	21,000
	South	22,908	18,200	32,034	24,500
	East	3,302	3,800	4,528	4,600
	West	1,362	2,500	6,287	5,900
Palm Dr (NS) at Dillion Rd (EW) - #18	North	27,983	18,300	34,451	22,700
	South	27,429	22,900	33,773	27,300
	East	6,012	4,800	18,439	13,300
	West	3,956	1,700	20,948	13,400
Palm Dr (NS) at 20th Ave (EW) - #19	North	28,044	22,100	39,697	30,100
	South	28,901	9,300	49,345	23,400
	East	2,124	1,000	15,074	9,900
	West	1,206	19,700	12,986	27,800

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
Palm Dr (NS) at Varner Rd (EW) - #20	North	29,197	**9,600**	52,035	25,300
	South	27,057	**8,800**	43,271	19,900
	East	2,162	**900**	10,727	6,800
	West	-	**-**	-	-
Mountain View Rd (NS) at Hacienda Ave (EW) - #21	North	896	**7,300**	14,103	16,400
	South	3,406	**5,900**	10,517	10,800
	East	5,366	**1,200**	13,168	6,600
	West	7,896	**400**	9,581	1,600
Mountain View Rd (NS) at Dillion Rd (EW) - #22	North	7,884	**6,000**	23,353	16,600
	South	9,541	**5,300**	24,780	15,800
	East	6,472	**500**	11,278	3,800
	West	5,416	**300**	14,435	6,500
Mountain View Rd (NS) at Varner Rd (EW) - #23	North	11,467	**5,300**	35,577	21,900
	South	-	**1,200**	6,979	6,000
	East	13,632	**20,200**	37,482	36,600
	West	2,172	**24,200**	10,429	29,900
Long Canyon Rd (NS) at Dillion Rd (EW) - #24	North	3,455	**-**	4,248	500
	South	348	**100**	5,729	3,800
	East	9,076	**5,000**	17,024	10,500
	West	6,461	**5,100**	10,748	8,000

[1] Adjusted for minimum 10% growth over existing average daily traffic volumes for year 2035.

PROPOSED GENERAL PLAN BUILDOUT

SR-62 (NS) / Indian Canyon Drive (EW) - #1

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES:	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES:
2019 0 886 183	2019 1 615 171
< v >	< v >
0 ^ ^ 125	0 ^ ^ 346
1 > < 0	0 > < 1
0 v v 0	0 v v 2
< ^ >	< ^ >
0 394 5	0 759 6
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 1069 519	2019 787 1105
v ^	v ^
0 < IN = 1594 < 125	2 < IN = 1901 < 349
1 > OUT = 1594 > 189	0 > OUT = 1901 > 177
v ^	v ^
886 399	617 765
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 0 886 183	2019 1 615 171
< v >	< v >
0 ^ ^ 125	0 ^ ^ 346
1 > < 0	0 > < 1
0 v v 0	0 v v 2
< ^ >	< ^ >
0 394 5	0 759 6
EXISTING PEAK PERIOD MODEL YEAR - AUTO:	EXISTING PEAK PERIOD MODEL YEAR - AUTO:
2008 2292 1291	2008 2139 3533
v ^	v ^
0 < IN = 3583 < 464	0 < IN = 5672 < 722
0 > OUT = 3582 > 1065	0 > OUT = 5671 > 1043
v ^	v ^
1226 827	1095 2811
EXISTING PEAK PERIOD MODEL YEAR - TRUCKS:	EXISTING PEAK PERIOD MODEL YEAR - TRUCKS:
2008 115 110	2008 175 190
v ^	v ^
0 < IN = 225 < 29	0 < IN = 365 < 13
0 > OUT = 225 > 19	0 > OUT = 364 > 45
v ^	v ^
96 81	129 177
EXISTING PEAK HOUR MODEL YEAR:	EXISTING PEAK HOUR MODEL YEAR:
PHF FOR CARS: 0.38 909 527	PHF FOR CARS: 0.28 643 1037
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
0 < IN = 1436 < 186	0 < IN = 1679 < 205
0 > OUT = 1436 > 411	0 > OUT = 1679 > 303
v ^	v ^
498 341	339 831
FUTURE PEAK PERIOD MODEL YEAR - AUTO:	FUTURE PEAK PERIOD MODEL YEAR - AUTO:
2040 7432 1880	2040 4800 11517
v ^	v ^
0 < IN = 9304 < 1164	0 < IN = 16302 < 5790
0 > OUT = 9300 > 4233	0 > OUT = 16302 > 2939
v ^	v ^
3187 708	1846 5712
FUTURE PEAK PERIOD MODEL YEAR - TRUCKS:	FUTURE PEAK PERIOD MODEL YEAR - TRUCKS:
2040 255 201	2040 335 411
v ^	v ^
0 < IN = 457 < 82	0 < IN = 745 < 184
0 > OUT = 456 > 63	0 > OUT = 745 > 118
v ^	v ^
192 120	216 226
FUTURE PEAK HOUR MODEL YEAR:	FUTURE PEAK HOUR MODEL YEAR:
PHF FOR CARS: 0.38 2909 781	PHF FOR CARS: 0.28 1428 3328
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
0 < IN = 3688 < 470	0 < IN = 4751 < 1667
0 > OUT = 3686 > 1630	0 > OUT = 4751 > 852
v ^	v ^
1275 309	571 1656
RAW GROWTH: 2008 TO 2040	RAW GROWTH: 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 2000 254	CONVERSION OF TRUCKS TO: 2040 785 2291
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
0 < < 284	0 < < 1462
0 > > 1218	0 > > 549
v ^	v ^
777 -32	232 825
ADJUSTED GROWTH: 2008 TO 2040	ADJUSTED GROWTH: 2008 TO 2040
10 MINIMUM GROWTH % 2000 250	10 MINIMUM GROWTH % 790 2290
v ^	v ^
0 < IN = 2280 < 280	0 < IN = 3070 < 1460
0 > OUT = 2250 > 1220	0 > OUT = 3070 > 550
v ^	v ^
780 0	230 820
PRORATED GROWTH: 2019 TO 2040	PRORATED GROWTH: 2019 TO 2040
21 YEARS 1310 160	21 YEARS 520 1500
v ^	v ^
0 < < 180	0 < < 960
0 > > 800	0 > > 360
v ^	v ^
510 0	150 540
NEW PROJECTED VOLUMES: 2040	NEW PROJECTED VOLUMES: 2040
2380 680	1310 2610
v ^	v ^
0 < < 310	0 < < 1310
0 > > 990	0 > > 540
v ^	v ^
1400 400	770 1310
ADT BY LEG:	ADT BY LEG:
2040 34,300	2040 34,300
N	N
29,700 W LEG E 52,900	29,700 W LEG E 52,900
S	S
34,600	34,600

SR-62 (NS) / Indian Canyon Drive (EW) - #1

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**394**	IN ...	**400**	BOUND	THRU	**759**	IN ...	**1,310**
	RIGHT	**5**	OUT ...	**1,400**		RIGHT	**6**	OUT ...	**770**
SOUTH	LEFT	**183**	NORTH LEG		SOUTH	LEFT	**171**	NORTH LEG	
BOUND	THRU	**886**	IN ...	**2,380**	BOUND	THRU	**615**	IN ...	**1,310**
	RIGHT	**0**	OUT ...	**680**		RIGHT	**1**	OUT ...	**2,610**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**1**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**2**	EAST LEG	
BOUND	THRU	**0**	IN ...	**310**	BOUND	THRU	**1**	IN ...	**1,310**
	RIGHT	**125**	OUT ...	**990**		RIGHT	**346**	OUT ...	**540**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**394**	**433**	RATIO **9.1%**	BOUND	THRU	**759**	**1,299**	RATIO **11.4%**
	RIGHT	**5**	**14**	ADT 34,300		RIGHT	**6**	**16**	ADT 34,300
SOUTH	LEFT	**183**	**976**	SOUTH LEG	SOUTH	LEFT	**171**	**524**	SOUTH LEG
BOUND	THRU	**886**	**1,400**	RATIO **5.3%**	BOUND	THRU	**615**	**765**	RATIO **6.0%**
	RIGHT	**0**	**0**	ADT 34,600		RIGHT	**1**	**1**	ADT 34,600
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**1**	**1**	RATIO **2.4%**	BOUND	THRU	**0**	**0**	RATIO **3.5%**
	RIGHT	**0**	**0**	ADT 52,900		RIGHT	**0**	**0**	ADT 52,900
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**2**	**5**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **0.0%**	BOUND	THRU	**1**	**1**	RATIO **0.0%**
	RIGHT	**125**	**303**	ADT 29,700		RIGHT	**346**	**1,311**	ADT 29,700

SR-62 (NS) / Pierson Boulevard (East) (EW) - #2

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 0 0
< v >
0 ^ ^ 5
5 > < 2
0 v v 0
< ^ >
2 386 64

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
0 391
v ^
4 < IN = 464 < 7
5 > OUT = 464 > 69
v ^
0 452

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 0 0
< v >
0 ^ ^ 5
5 > < 2
0 v v 0
< ^ >
2 386 64

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
0 827
v ^
429 < IN = 1687 < 371
159 > OUT = 1686 > 430
v ^
0 1157

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
0 81
v ^
22 < IN = 122 < 20
2 > OUT = 122 > 19
v ^
0 100

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
0 341
v ^
170 < IN = 682 < 148
61 > OUT = 681 > 170
v ^
0 473

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
0 708
v ^
3270 < IN = 5545 < 2816
1256 > OUT = 5544 > 1566
v ^
0 1473

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
0 120
v ^
56 < IN = 205 < 46
18 > OUT = 206 > 30
v ^
0 141

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
0 309
v ^
1261 < IN = 2175 < 1085
483 > OUT = 2175 > 605
v ^
0 607

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
0 -32
v ^
1091 < < 938
422 > > 435
v ^
0 134

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
0 40
v ^
1090 < IN = 1490 < 940
420 > OUT = 1570 > 440
v ^
0 130

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
0 30
v ^
720 < < 620
280 > > 290
v ^
0 90

NEW PROJECTED VOLUMES (PCEs): 2040
0 420
v ^
720 < < 630
290 > > 360
v ^
0 540

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
0 0 0
< v >
0 ^ ^ 15
3 > < 4
0 v v 0
< ^ >
8 780 90

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
0 795
v ^
12 < IN = 900 < 19
3 > OUT = 900 > 93
v ^
0 878

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
0 0 0
< v >
0 ^ ^ 15
3 > < 4
0 v v 0
< ^ >
8 780 90

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
0 2811
v ^
1339 < IN = 5003 < 763
224 > OUT = 5003 > 853
v ^
0 4016

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
0 177
v ^
35 < IN = 245 < 32
2 > OUT = 245 > 33
v ^
0 211

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
0 831
v ^
384 < IN = 1462 < 222
63 > OUT = 1462 > 247
v ^
0 1177

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
0 5712
v ^
5747 < IN = 13999 < 3863
2020 > OUT = 13998 > 2539
v ^
0 8116

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
0 226
v ^
85 < IN = 347 < 74
26 > OUT = 347 > 36
v ^
0 247

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
0 1656
v ^
1630 < IN = 4006 < 1100
572 > OUT = 4006 > 720
v ^
0 2334

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
0 825
v ^
1247 < < 879
509 > > 473
v ^
0 1157

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
0 820
v ^
1250 < IN = 2550 < 880
510 > OUT = 2540 > 470
v ^
0 1160

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
0 540
v ^
820 < < 580
330 > > 310
v ^
0 760

NEW PROJECTED VOLUMES (PCEs): 2040
0 1340
v ^
830 < < 600
330 > > 400
v ^
0 1640

SR-62 (NS) / Pierson Boulevard (East) (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**8**	SOUTH LEG	
BOUND	THRU	**386**	IN ...	**540**	BOUND	THRU	**780**	IN ...	**1,640**
	RIGHT	**64**	OUT ...	**0**		RIGHT	**90**	OUT ...	**0**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**420**		RIGHT	**0**	OUT ...	**1,340**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**5**	IN ...	**290**	BOUND	THRU	**3**	IN ...	**330**
	RIGHT	**0**	OUT ...	**720**		RIGHT	**0**	OUT ...	**830**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**2**	IN ...	**630**	BOUND	THRU	**4**	IN ...	**600**
	RIGHT	**5**	OUT ...	**360**		RIGHT	**15**	OUT ...	**400**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**74**	NORTH LEG	NORTH	LEFT	**8**	**303**	NORTH LEG
BOUND	THRU	**386**	**425**	RATIO **1.5%**	BOUND	THRU	**780**	**1,256**	RATIO **4.2%**
	RIGHT	**64**	**90**	ADT 31,700		RIGHT	**90**	**99**	ADT 31,700
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **1.8%**	BOUND	THRU	**0**	**0**	RATIO **4.9%**
	RIGHT	**0**	**0**	ADT 33,500		RIGHT	**0**	**0**	ADT 33,500
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**5**	**270**	RATIO **8.1%**	BOUND	THRU	**3**	**311**	RATIO **7.9%**
	RIGHT	**0**	**0**	ADT 13,000		RIGHT	**0**	**0**	ADT 13,000
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**2**	**646**	RATIO **7.1%**	BOUND	THRU	**4**	**527**	RATIO **8.2%**
	RIGHT	**5**	**42**	ADT 13,900		RIGHT	**15**	**84**	ADT 13,900

SR-62 (NS) / Pierson Boulevard (West) (EW) - #2

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 2 876 10	2019 0 609 10
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
5 > < 2	3 > < 4
14 v v 77	4 v v 60
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 888 0	2019 619 0
v ^	v ^
4 < IN = 986 < 79	4 < IN = 690 < 64
19 > OUT = 986 > 15	7 > OUT = 690 > 13
v ^	v ^
967 0	673 0
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 2 876 10	2019 0 609 10
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
5 > < 2	3 > < 4
14 v v 77	4 v v 60
< ^ >	< ^ >
0 0 0	0 0 0
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1226 0	2008 1095 0
v ^	v ^
0 < IN = 1655 < 429	0 < IN = 2434 < 1339
0 > OUT = 1823 > 159	0 > OUT = 2116 > 224
v ^	v ^
1664 0	1892 0
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 96 0	2008 129 0
v ^	v ^
0 < IN = 118 < 22	0 < IN = 164 < 35
0 > OUT = 118 > 2	0 > OUT = 164 > 2
v ^	v ^
116 0	162 0
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 498 0	PHF FOR CARS: 0.28 339 0
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
0 < IN = 668 < 170	0 < IN = 723 < 384
0 > OUT = 732 > 61	0 > OUT = 633 > 63
v ^	v ^
671 0	570 0
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 3187 0	2040 1846 0
v ^	v ^
1476 < IN = 8799 < 3270	4154 < IN = 10720 < 5747
2342 > OUT = 8799 > 1256	3127 > OUT = 10719 > 2020
v ^	v ^
6067 0	4545 0
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 192 0	2040 216 0
v ^	v ^
27 < IN = 275 < 56	40 < IN = 341 < 85
27 > OUT = 274 > 18	40 > OUT = 342 > 26
v ^	v ^
229 0	276 0
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1275 0	PHF FOR CARS: 0.28 571 0
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
570 < IN = 3435 < 1261	1173 < IN = 3087 < 1630
899 > OUT = 3435 > 483	886 > OUT = 3087 > 572
v ^	v ^
2382 0	1342 0
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 777 0	CONVERSION OF TRUCKS TO: 2040 232 0
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
570 < < 1091	1173 < < 1247
899 > > 422	886 > > 509
v ^	v ^
1711 0	771 0
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 780 0	10 MINIMUM GROWTH % 230 0
v ^	v ^
570 < IN = 2770 < 1090	1170 < IN = 2370 < 1250
900 > OUT = 2700 > 420	890 > OUT = 2450 > 510
v ^	v ^
1710 0	770 0
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 510 0	21 YEARS 150 0
v ^	v ^
370 < < 720	770 < < 820
590 > > 280	580 > > 330
v ^	v ^
1120 0	510 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
1400 0	770 0
v ^	v ^
370 < < 800	770 < < 880
610 > > 300	590 > > 340
v ^	v ^
2090 0	1180 0

SR-62 (NS) / Pierson Boulevard (West) (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**2,090**		RIGHT	**0**	OUT ...	**1,180**
SOUTH	LEFT	**10**	NORTH LEG		SOUTH	LEFT	**10**	NORTH LEG	
BOUND	THRU	**876**	IN ...	**1,400**	BOUND	THRU	**609**	IN ...	**770**
	RIGHT	**2**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**5**	IN ...	**610**	BOUND	THRU	**3**	IN ...	**590**
	RIGHT	**14**	OUT ...	**370**		RIGHT	**4**	OUT ...	**770**
WEST	LEFT	**77**	EAST LEG		WEST	LEFT	**60**	EAST LEG	
BOUND	THRU	**2**	IN ...	**800**	BOUND	THRU	**4**	IN ...	**880**
	RIGHT	**0**	OUT ...	**300**		RIGHT	**0**	OUT ...	**340**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **4.3%**	BOUND	THRU	**0**	**0**	RATIO **2.4%**
	RIGHT	**0**	**0**	ADT 32,200		RIGHT	**0**	**0**	ADT 32,200
SOUTH	LEFT	**10**	**33**	SOUTH LEG	SOUTH	LEFT	**10**	**20**	SOUTH LEG
BOUND	THRU	**876**	**1,273**	RATIO **5.6%**	BOUND	THRU	**609**	**754**	RATIO **3.2%**
	RIGHT	**2**	**69**	ADT 37,100		RIGHT	**0**	**0**	ADT 37,100
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**5**	**267**	RATIO **7.5%**	BOUND	THRU	**3**	**320**	RATIO **8.8%**
	RIGHT	**14**	**332**	ADT 14,400		RIGHT	**4**	**266**	ADT 14,400
WEST	LEFT	**77**	**485**	WEST LEG	WEST	LEFT	**60**	**161**	WEST LEG
BOUND	THRU	**2**	**301**	RATIO **6.7%**	BOUND	THRU	**4**	**770**	RATIO **9.4%**
	RIGHT	**0**	**0**	ADT 14,400		RIGHT	**0**	**0**	ADT 14,400

SR-62 (NS) / Dillon Road (EW) - #3

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 3 952 17	2019 2 655 8
< v >	< v >
1 ^ ^ 6	2 ^ ^ 28
6 > < 6	4 > < 4
11 v v 73	14 v v 62
< ^ >	< ^ >
9 448 45	7 858 100
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 972 455	2019 665 888
v ^	v ^
18 < IN = 1577 < 85	13 < IN = 1744 < 94
18 > OUT = 1577 > 68	20 > OUT = 1744 > 112
v ^	v ^
1036 502	731 965
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 3 952 17	2019 2 655 8
< v >	< v >
1 ^ ^ 6	2 ^ ^ 28
6 > < 6	4 > < 4
11 v v 73	14 v v 62
< ^ >	< ^ >
9 448 45	7 858 100
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1664 1157	2008 1892 4016
v ^	v ^
0 < IN = 3099 < 221	0 < IN = 6880 < 764
0 > OUT = 3099 > 101	0 > OUT = 6880 > 477
v ^	v ^
1841 1214	2387 4224
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 116 100	2008 162 211
v ^	v ^
0 < IN = 242 < 21	0 < IN = 439 < 35
0 > OUT = 242 > 5	0 > OUT = 440 > 33
v ^	v ^
137 105	196 242
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 671 473	PHF FOR CARS: 0.28 570 1177
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
0 < IN = 1258 < 91	0 < IN = 2036 < 223
0 > OUT = 1258 > 40	0 > OUT = 2036 > 142
v ^	v ^
745 496	717 1243
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 6067 1473	2040 4545 8116
v ^	v ^
13 < IN = 9439 < 1609	41 < IN = 15207 < 3359
79 > OUT = 9440 > 811	58 > OUT = 15206 > 998
v ^	v ^
7143 1684	6051 7245
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 229 141	2040 276 247
v ^	v ^
4 < IN = 514 < 104	3 < IN = 739 < 195
5 > OUT = 513 > 35	8 > OUT = 739 > 33
v ^	v ^
333 176	456 260
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2382 607	PHF FOR CARS: 0.28 1342 2334
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
6 < IN = 3758 < 646	12 < IN = 4443 < 989
32 > OUT = 3758 > 320	18 > OUT = 4442 > 288
v ^	v ^
2825 699	1808 2094
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1711 134	CONVERSION OF TRUCKS TO: 2040 771 1157
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
6 < < 555	12 < < 767
32 > > 280	18 > > 146
v ^	v ^
2080 202	1091 850
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1710 130	10 MINIMUM GROWTH % 770 1160
v ^	v ^
10 < IN = 2500 < 560	10 < IN = 2410 < 770
30 > OUT = 2500 > 280	20 > OUT = 2410 > 150
v ^	v ^
2080 200	1090 850
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 1120 90	21 YEARS 510 760
v ^	v ^
10 < < 370	10 < < 510
20 > > 180	10 > > 100
v ^	v ^
1370 130	720 560
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
2090 550	1180 1650
v ^	v ^
30 < < 460	20 < < 600
40 > > 250	30 > > 210
v ^	v ^
2410 630	1450 1530

SR-62 (NS) / Dillon Road (EW) - #3

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**9**	SOUTH LEG		NORTH	LEFT	**7**	SOUTH LEG	
BOUND	THRU	**448**	IN ...	**630**	BOUND	THRU	**858**	IN ...	**1,530**
	RIGHT	**45**	OUT ...	**2,410**		RIGHT	**100**	OUT ...	**1,450**
SOUTH	LEFT	**17**	NORTH LEG		SOUTH	LEFT	**8**	NORTH LEG	
BOUND	THRU	**952**	IN ...	**2,090**	BOUND	THRU	**655**	IN ...	**1,180**
	RIGHT	**3**	OUT ...	**550**		RIGHT	**2**	OUT ...	**1,650**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**6**	IN ...	**40**	BOUND	THRU	**4**	IN ...	**30**
	RIGHT	**11**	OUT ...	**30**		RIGHT	**14**	OUT ...	**20**
WEST	LEFT	**73**	EAST LEG		WEST	LEFT	**62**	EAST LEG	
BOUND	THRU	**6**	IN ...	**460**	BOUND	THRU	**4**	IN ...	**600**
	RIGHT	**6**	OUT ...	**250**		RIGHT	**28**	OUT ...	**210**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**9**	**10**	NORTH LEG	NORTH	LEFT	**7**	**8**	NORTH LEG
BOUND	THRU	**448**	**510**	RATIO **20.3%**	BOUND	THRU	**858**	**1,377**	RATIO **21.5%**
	RIGHT	**45**	**126**	ADT 13,000		RIGHT	**100**	**173**	ADT 13,000
SOUTH	LEFT	**17**	**100**	SOUTH LEG	SOUTH	LEFT	**8**	**28**	SOUTH LEG
BOUND	THRU	**952**	**1,991**	RATIO **18.1%**	BOUND	THRU	**655**	**1,121**	RATIO **17.8%**
	RIGHT	**3**	**4**	ADT 16,900		RIGHT	**2**	**2**	ADT 16,900
EAST	LEFT	**1**	**2**	EAST LEG	EAST	LEFT	**2**	**4**	EAST LEG
BOUND	THRU	**6**	**23**	RATIO **1.6%**	BOUND	THRU	**4**	**9**	RATIO **1.8%**
	RIGHT	**11**	**15**	ADT 45,500		RIGHT	**14**	**16**	ADT 45,500
WEST	LEFT	**73**	**403**	WEST LEG	WEST	LEFT	**62**	**313**	WEST LEG
BOUND	THRU	**6**	**21**	RATIO **0.2%**	BOUND	THRU	**4**	**14**	RATIO **0.1%**
	RIGHT	**6**	**38**	ADT 42,700		RIGHT	**28**	**269**	ADT 42,700

Indian Canyon Drive (NS) / Mission Lakes Boulevard (EW) - #4

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 139 48
< v >
1 ^ ^ 53
2 > < 1
2 v v 186
< ^ >
1 74 63

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
188 128
v ^
3 < IN = 571 < 240
5 > OUT = 571 > 113
v ^
327 138

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 139 48
< v >
1 ^ ^ 53
2 > < 1
2 v v 186
< ^ >
1 74 63

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1058 458
v ^
0 < IN = 2504 < 606
0 > OUT = 2377 > 486
v ^
1433 840

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
19 29
v ^
0 < IN = 62 < 8
0 > OUT = 63 > 12
v ^
22 35

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 408 184
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 972 < 233
0 > OUT = 924 > 189
v ^
552 331

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2444 793
v ^
265 < IN = 4124 < 473
162 > OUT = 4124 > 690
v ^
2376 1045

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
35 55
v ^
1 < IN = 100 < 7
1 > OUT = 99 > 11
v ^
32 57

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 940 320
PHF FOR TRUCKS: 0.333 v ^
101 < IN = 1600 < 182
62 > OUT = 1600 > 266
v ^
914 416

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 532 136
FACTOR = 1.00 v ^
101 < < -51
62 > > 77
v ^
362 85

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 530 140
v ^
100 < IN = 700 < 20
60 > OUT = 680 > 80
v ^
360 90

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 350 90
v ^
70 < < 10
40 > > 50
v ^
240 60

NEW PROJECTED VOLUMES (PCEs): 2040
540 220
v ^
70 < < 250
50 > > 160
v ^
570 200

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 122 56
< v >
1 ^ ^ 74
2 > < 1
2 v v 81
< ^ >
1 247 162

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
179 322
v ^
3 < IN = 750 < 156
5 > OUT = 750 > 220
v ^
205 410

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 122 56
< v >
1 ^ ^ 74
2 > < 1
2 v v 81
< ^ >
1 247 162

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1032 522
v ^
0 < IN = 3862 < 1033
0 > OUT = 3886 > 1714
v ^
1650 1797

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
45 10
v ^
0 < IN = 80 < 18
0 > OUT = 80 > 19
v ^
51 17

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 300 149
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 1101 < 294
0 > OUT = 1108 > 485
v ^
475 507

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
1808 3329
v ^
577 < IN = 7040 < 1863
507 > OUT = 7040 > 960
v ^
2174 2862

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
72 89
v ^
2 < IN = 175 < 25
1 > OUT = 175 > 13
v ^
71 77

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 524 954
PHF FOR TRUCKS: 0.25 v ^
162 < IN = 2015 < 528
142 > OUT = 2015 > 272
v ^
626 821

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 224 806
FACTOR = 1.00 v ^
162 < < 234
142 > > -213
v ^
152 313

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 220 810
v ^
160 < IN = 900 < 230
140 > OUT = 1140 > 20
v ^
150 310

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 140 530
v ^
110 < < 150
90 > > 10
v ^
100 200

NEW PROJECTED VOLUMES (PCEs): 2040
320 850
v ^
110 < < 310
100 > > 230
v ^
310 610

Indian Canyon Drive (NS) / Mission Lakes Boulevard (EW) - #4

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**74**	IN ...	**200**	BOUND	THRU	**247**	IN ...	**610**
	RIGHT	**63**	OUT ...	**570**		RIGHT	**162**	OUT ...	**310**
SOUTH	LEFT	**48**	NORTH LEG		SOUTH	LEFT	**56**	NORTH LEG	
BOUND	THRU	**139**	IN ...	**540**	BOUND	THRU	**122**	IN ...	**320**
	RIGHT	**1**	OUT ...	**220**		RIGHT	**1**	OUT ...	**850**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**1**	WEST LEG	
BOUND	THRU	**2**	IN ...	**50**	BOUND	THRU	**2**	IN ...	**100**
	RIGHT	**2**	OUT ...	**70**		RIGHT	**2**	OUT ...	**110**
WEST	LEFT	**186**	EAST LEG		WEST	LEFT	**81**	EAST LEG	
BOUND	THRU	**1**	IN ...	**250**	BOUND	THRU	**1**	IN ...	**310**
	RIGHT	**53**	OUT ...	**160**		RIGHT	**74**	OUT ...	**230**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**1**	**16**	NORTH LEG	NORTH	LEFT	**1**	**22**	NORTH LEG
BOUND	THRU	**74**	**131**	RATIO **4.8%**	BOUND	THRU	**247**	**557**	RATIO **7.7%**
	RIGHT	**63**	**69**	ADT 15,700		RIGHT	**162**	**178**	ADT 15,700
SOUTH	LEFT	**48**	**97**	SOUTH LEG	SOUTH	LEFT	**56**	**95**	SOUTH LEG
BOUND	THRU	**139**	**391**	RATIO **24.4%**	BOUND	THRU	**122**	**205**	RATIO **31.8%**
	RIGHT	**1**	**41**	ADT 3,400		RIGHT	**1**	**57**	ADT 3,400
EAST	LEFT	**1**	**16**	EAST LEG	EAST	LEFT	**1**	**52**	EAST LEG
BOUND	THRU	**2**	**14**	RATIO **1.3%**	BOUND	THRU	**2**	**30**	RATIO **1.9%**
	RIGHT	**2**	**19**	ADT 35,300		RIGHT	**2**	**30**	ADT 35,300
WEST	LEFT	**186**	**205**	WEST LEG	WEST	LEFT	**81**	**89**	WEST LEG
BOUND	THRU	**1**	**13**	RATIO **0.3%**	BOUND	THRU	**1**	**31**	RATIO **0.5%**
	RIGHT	**53**	**73**	ADT 43,100		RIGHT	**74**	**241**	ADT 43,100

Indian Canyon Drive (NS) / Pierson Boulevard (EW) - #5

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
21 247 54
< v >
18 ^ ^ 15
88 > < 41
36 v v 156
< ^ >
9 116 86

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
322 149
v ^
71 < IN = 887 < 212
142 > OUT = 887 > 228
v ^
439 211

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
21 247 54
< v >
18 ^ ^ 15
88 > < 41
36 v v 156
< ^ >
9 116 86

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1433 840
v ^
393 < IN = 3051 < 541
371 > OUT = 3051 > 403
v ^
1415 706

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
22 35
v ^
20 < IN = 86 < 18
18 > OUT = 87 > 14
v ^
18 28

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 552 331
PHF FOR TRUCKS: 0.333 v ^
156 < IN = 1188 < 212
147 > OUT = 1188 > 158
v ^
544 278

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
3161 1341
v ^
1840 < IN = 8738 < 1957
1744 > OUT = 8737 > 1541
v ^
4015 1876

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
37 64
v ^
28 < IN = 157 < 28
17 > OUT = 158 > 26
v ^
40 75

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1214 531
PHF FOR TRUCKS: 0.333 v ^
709 < IN = 3373 < 753
668 > OUT = 3373 > 594
v ^
1539 738

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 662 200
FACTOR = 1.00 v ^
553 < < 541
521 > > 436
v ^
995 460

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 660 200
v ^
550 < IN = 2180 < 540
520 > OUT = 2190 > 440
v ^
1000 460

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 430 130
v ^
360 < < 350
340 > > 290
v ^
660 300

NEW PROJECTED VOLUMES (PCEs): 2040
750 280
v ^
430 < < 560
480 > > 520
v ^
1100 510

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
12 155 36
< v >
33 ^ ^ 43
73 > < 76
20 v v 90
< ^ >
31 335 118

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
203 411
v ^
119 < IN = 1022 < 209
126 > OUT = 1022 > 227
v ^
265 484

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
12 155 36
< v >
33 ^ ^ 43
73 > < 76
20 v v 90
< ^ >
31 335 118

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1650 1797
v ^
753 < IN = 5352 < 898
759 > OUT = 5352 > 1149
v ^
1653 2045

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
51 17
v ^
31 < IN = 120 < 26
32 > OUT = 120 > 28
v ^
44 11

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 475 507
PHF FOR TRUCKS: 0.25 v ^
219 < IN = 1529 < 258
221 > OUT = 1529 > 329
v ^
474 575

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2813 4277
v ^
3456 < IN = 13699 < 3266
1935 > OUT = 13698 > 2562
v ^
3403 5685

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
78 86
v ^
50 < IN = 238 < 46
20 > OUT = 238 > 25
v ^
77 94

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 807 1219
PHF FOR TRUCKS: 0.25 v ^
980 < IN = 3895 < 926
547 > OUT = 3895 > 724
v ^
972 1615

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 332 712
FACTOR = 1.00 v ^
762 < < 668
326 > > 395
v ^
498 1040

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 330 710
v ^
760 < IN = 2370 < 670
330 > OUT = 2360 > 390
v ^
500 1040

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 220 470
v ^
500 < < 440
220 > > 260
v ^
330 680

NEW PROJECTED VOLUMES (PCEs): 2040
420 880
v ^
620 < < 650
350 > > 490
v ^
600 1160

Indian Canyon Drive (NS) / Pierson Boulevard (EW) - #5

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**9**	SOUTH LEG		NORTH	LEFT	**31**	SOUTH LEG	
BOUND	THRU	**116**	IN ...	**510**	BOUND	THRU	**335**	IN ...	**1,160**
	RIGHT	**86**	OUT ...	**1,100**		RIGHT	**118**	OUT ...	**600**
SOUTH	LEFT	**54**	NORTH LEG		SOUTH	LEFT	**36**	NORTH LEG	
BOUND	THRU	**247**	IN ...	**750**	BOUND	THRU	**155**	IN ...	**420**
	RIGHT	**21**	OUT ...	**280**		RIGHT	**12**	OUT ...	**880**
EAST	LEFT	**18**	WEST LEG		EAST	LEFT	**33**	WEST LEG	
BOUND	THRU	**88**	IN ...	**480**	BOUND	THRU	**73**	IN ...	**350**
	RIGHT	**36**	OUT ...	**430**		RIGHT	**20**	OUT ...	**620**
WEST	LEFT	**156**	EAST LEG		WEST	LEFT	**90**	EAST LEG	
BOUND	THRU	**41**	IN ...	**560**	BOUND	THRU	**76**	IN ...	**650**
	RIGHT	**15**	OUT ...	**520**		RIGHT	**43**	OUT ...	**490**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**9**	**93**	NORTH LEG	NORTH	LEFT	**31**	**195**	NORTH LEG
BOUND	THRU	**116**	**222**	RATIO **14.5%**	BOUND	THRU	**335**	**720**	RATIO **18.1%**
	RIGHT	**86**	**199**	ADT 7,200		RIGHT	**118**	**248**	ADT 7,200
SOUTH	LEFT	**54**	**68**	SOUTH LEG	SOUTH	LEFT	**36**	**52**	SOUTH LEG
BOUND	THRU	**247**	**574**	RATIO **12.7%**	BOUND	THRU	**155**	**318**	RATIO **13.9%**
	RIGHT	**21**	**120**	ADT 12,700		RIGHT	**12**	**52**	ADT 12,700
EAST	LEFT	**18**	**43**	EAST LEG	EAST	LEFT	**33**	**88**	EAST LEG
BOUND	THRU	**88**	**253**	RATIO **2.6%**	BOUND	THRU	**73**	**190**	RATIO **2.7%**
	RIGHT	**36**	**190**	ADT 42,000		RIGHT	**20**	**73**	ADT 42,000
WEST	LEFT	**156**	**337**	WEST LEG	WEST	LEFT	**90**	**208**	WEST LEG
BOUND	THRU	**41**	**217**	RATIO **2.2%**	BOUND	THRU	**76**	**373**	RATIO **2.3%**
	RIGHT	**15**	**17**	ADT 41,400		RIGHT	**43**	**72**	ADT 41,400

Indian Canyon Drive (NS) / 14th Avenue (EW) - #6

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 457 1
< v >
2 ^ ^ 2
1 > < 1
2 v v 2
< ^ >
1 197 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
459 201
v ^
3 < IN = 668 < 5
5 > OUT = 668 > 3
v ^
461 199

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 457 1
< v >
2 ^ ^ 2
1 > < 1
2 v v 2
< ^ >
1 197 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1473 727
v ^
0 < IN = 2200 < 0
0 > OUT = 2200 > 0
v ^
1473 727

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
18 29
v ^
0 < IN = 47 < 0
0 > OUT = 47 > 0
v ^
18 29

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
566 286
v ^
0 < IN = 852 < 0
0 > OUT = 852 > 0
v ^
566 286

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
5224 2214
v ^
292 < IN = 8328 < 491
566 > OUT = 8328 > 625
v ^
5197 2047

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
46 85
v ^
6 < IN = 143 < 8
6 > OUT = 144 > 11
v ^
42 83

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
2000 870
v ^
113 < IN = 3212 < 189
217 > OUT = 3213 > 241
v ^
1989 805

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
1435 584
v ^
113 < < 189
217 > > 241
v ^
1423 520

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
1430 580
v ^
110 < IN = 2360 < 190
220 > OUT = 2350 > 240
v ^
1420 520

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
940 380
v ^
70 < < 120
140 > > 160
v ^
930 340

NEW PROJECTED VOLUMES (PCEs): 2040
1400 580
v ^
70 < < 130
150 > > 160
v ^
1390 540

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
1 255 1
< v >
2 ^ ^ 2
1 > < 1
2 v v 2
< ^ >
1 525 1

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
257 529
v ^
3 < IN = 794 < 5
5 > OUT = 794 > 3
v ^
259 527

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
1 255 1
< v >
2 ^ ^ 2
1 > < 1
2 v v 2
< ^ >
1 525 1

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1714 2173
v ^
0 < IN = 3887 < 0
0 > OUT = 3887 > 0
v ^
1714 2173

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
45 12
v ^
0 < IN = 57 < 0
0 > OUT = 57 > 0
v ^
45 12

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
491 611
v ^
0 < IN = 1103 < 0
0 > OUT = 1103 > 0
v ^
491 611

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
4028 7907
v ^
971 < IN = 13462 < 1443
486 > OUT = 13461 > 813
v ^
3770 7505

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
86 107
v ^
11 < IN = 215 < 22
9 > OUT = 215 > 12
v ^
85 98

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
1149 2241
v ^
275 < IN = 3823 < 410
138 > OUT = 3823 > 231
v ^
1077 2126

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
658 1629
v ^
275 < < 410
138 > > 231
v ^
586 1514

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
660 1630
v ^
270 < IN = 2720 < 410
140 > OUT = 2720 > 230
v ^
590 1510

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
430 1070
v ^
180 < < 270
90 > > 150
v ^
390 990

NEW PROJECTED VOLUMES (PCEs): 2040
690 1600
v ^
180 < < 280
100 > > 150
v ^
650 1520

Indian Canyon Drive (NS) / 14th Avenue (EW) - #6

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**197**	IN ...	**540**	BOUND	THRU	**525**	IN ...	**1,520**
	RIGHT	**1**	OUT ...	**1,390**		RIGHT	**1**	OUT ...	**650**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**457**	IN ...	**1,400**	BOUND	THRU	**255**	IN ...	**690**
	RIGHT	**1**	OUT ...	**580**		RIGHT	**1**	OUT ...	**1,600**
EAST	LEFT	**2**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**1**	IN ...	**150**	BOUND	THRU	**1**	IN ...	**100**
	RIGHT	**2**	OUT ...	**70**		RIGHT	**2**	OUT ...	**180**
WEST	LEFT	**2**	EAST LEG		WEST	LEFT	**2**	EAST LEG	
BOUND	THRU	**1**	IN ...	**130**	BOUND	THRU	**1**	IN ...	**280**
	RIGHT	**2**	OUT ...	**160**		RIGHT	**2**	OUT ...	**150**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**1**	**7**	NORTH LEG	NORTH	LEFT	**1**	**10**	NORTH LEG
BOUND	THRU	**197**	**515**	RATIO **4.4%**	BOUND	THRU	**525**	**1,500**	RATIO **5.0%**
	RIGHT	**1**	**23**	ADT 44,900		RIGHT	**1**	**28**	ADT 44,900
SOUTH	LEFT	**1**	**31**	SOUTH LEG	SOUTH	LEFT	**1**	**47**	SOUTH LEG
BOUND	THRU	**457**	**1,335**	RATIO **4.4%**	BOUND	THRU	**255**	**601**	RATIO **4.9%**
	RIGHT	**1**	**9**	ADT 44,300		RIGHT	**1**	**17**	ADT 44,300
EAST	LEFT	**2**	**24**	EAST LEG	EAST	LEFT	**2**	**16**	EAST LEG
BOUND	THRU	**1**	**106**	RATIO **1.0%**	BOUND	THRU	**1**	**76**	RATIO **1.5%**
	RIGHT	**2**	**20**	ADT 29,400		RIGHT	**2**	**8**	ADT 29,400
WEST	LEFT	**2**	**35**	WEST LEG	WEST	LEFT	**2**	**41**	WEST LEG
BOUND	THRU	**1**	**54**	RATIO **0.8%**	BOUND	THRU	**1**	**152**	RATIO **1.1%**
	RIGHT	**2**	**41**	ADT 26,500		RIGHT	**2**	**84**	ADT 26,500

Indian Canyon Drive (NS) / Dillon Road (EW) - #7

MORNING PEAK HOUR	EVENING PEAK HOUR

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 7 424 25
< v >
1 ^ ^ 18
64 > < 72
38 v v 359
< ^ >
12 180 128

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 456 199
v ^
91 < IN = 1328 < 449
103 > OUT = 1328 > 217
v ^
821 320

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 7 424 25
< v >
1 ^ ^ 18
64 > < 72
38 v v 359
< ^ >
12 180 128

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1552 762
v ^
326 < IN = 3311 < 562
47 > OUT = 3310 > 431
v ^
1791 1150

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 20 31
v ^
17 < IN = 88 < 19
1 > OUT = 87 > 18
v ^
21 48

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 596 300
PHF FOR TRUCKS: 0.333 v ^
130 < IN = 1287 < 220
18 > OUT = 1287 > 170
v ^
688 453

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 5317 2039
v ^
2275 < IN = 12453 < 2744
1594 > OUT = 12454 > 1648
v ^
6492 2798

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 62 101
v ^
84 < IN = 317 < 70
28 > OUT = 317 > 69
v ^
63 157

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2041 808
PHF FOR TRUCKS: 0.333 v ^
892 < IN = 4838 < 1066
615 > OUT = 4838 > 649
v ^
2488 1116

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1445 509
FACTOR = 1.00 v ^
763 < < 846
597 > > 479
v ^
1800 663

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1440 510
v ^
760 < IN = 3550 < 850
600 > OUT = 3550 > 480
v ^
1800 660

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 950 330
v ^
500 < < 560
390 > > 320
v ^
1180 430

NEW PROJECTED VOLUMES (PCEs): 2040
1410 530
v ^
590 < < 1010
490 > > 540
v ^
2000 750

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 7 232 27
< v >
7 ^ ^ 49
95 > < 70
15 v v 176
< ^ >
22 476 294

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 266 532
v ^
99 < IN = 1470 < 295
117 > OUT = 1470 > 416
v ^
423 792

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 7 232 27
< v >
7 ^ ^ 49
95 > < 70
15 v v 176
< ^ >
22 476 294

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1786 2319
v ^
608 < IN = 6077 < 931
580 > OUT = 6078 > 1037
v ^
2114 2780

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 48 15
v ^
27 < IN = 119 < 29
27 > OUT = 118 > 27
v ^
49 15

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 512 653
PHF FOR TRUCKS: 0.25 v ^
177 < IN = 1731 < 268
169 > OUT = 1731 > 297
v ^
604 782

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 3601 7844
v ^
3459 < IN = 19967 < 3687
3035 > OUT = 19967 > 3746
v ^
4918 9644

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 109 135
v ^
163 < IN = 495 < 128
45 > OUT = 496 > 87
v ^
111 213

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 1036 2230
PHF FOR TRUCKS: 0.25 v ^
1009 < IN = 5715 < 1064
861 > OUT = 5715 > 1071
v ^
1405 2754

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 523 1577
FACTOR = 1.00 v ^
832 < < 796
692 > > 774
v ^
801 1971

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 520 1580
v ^
830 < IN = 3980 < 800
690 > OUT = 3980 > 770
v ^
800 1970

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 340 1040
v ^
540 < < 530
450 > > 510
v ^
530 1290

NEW PROJECTED VOLUMES (PCEs): 2040
610 1570
v ^
640 < < 830
570 > > 930
v ^
950 2080

Indian Canyon Drive (NS) / Dillon Road (EW) - #7

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**12**	SOUTH LEG		NORTH	LEFT	**22**	SOUTH LEG	
BOUND	THRU	**180**	IN ...	**750**	BOUND	THRU	**476**	IN ...	**2,080**
	RIGHT	**128**	OUT ...	**2,000**		RIGHT	**294**	OUT ...	**950**
SOUTH	LEFT	**25**	NORTH LEG		SOUTH	LEFT	**27**	NORTH LEG	
BOUND	THRU	**424**	IN ...	**1,410**	BOUND	THRU	**232**	IN ...	**610**
	RIGHT	**7**	OUT ...	**530**		RIGHT	**7**	OUT ...	**1,570**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**7**	WEST LEG	
BOUND	THRU	**64**	IN ...	**490**	BOUND	THRU	**95**	IN ...	**570**
	RIGHT	**38**	OUT ...	**590**		RIGHT	**15**	OUT ...	**640**
WEST	LEFT	**359**	EAST LEG		WEST	LEFT	**176**	EAST LEG	
BOUND	THRU	**72**	IN ...	**1,010**	BOUND	THRU	**70**	IN ...	**830**
	RIGHT	**18**	OUT ...	**540**		RIGHT	**49**	OUT ...	**930**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**12**	**81**	NORTH LEG	NORTH	LEFT	**22**	**182**	NORTH LEG
BOUND	THRU	**180**	**480**	RATIO **4.3%**	BOUND	THRU	**476**	**1,412**	RATIO **4.8%**
	RIGHT	**128**	**190**	ADT 45,500		RIGHT	**294**	**480**	ADT 45,500
SOUTH	LEFT	**25**	**64**	SOUTH LEG	SOUTH	LEFT	**27**	**38**	SOUTH LEG
BOUND	THRU	**424**	**1,263**	RATIO **5.5%**	BOUND	THRU	**232**	**525**	RATIO **6.0%**
	RIGHT	**7**	**82**	ADT 50,200		RIGHT	**7**	**50**	ADT 50,200
EAST	LEFT	**1**	**8**	EAST LEG	EAST	LEFT	**7**	**55**	EAST LEG
BOUND	THRU	**64**	**286**	RATIO **6.3%**	BOUND	THRU	**95**	**411**	RATIO **7.2%**
	RIGHT	**38**	**197**	ADT 24,600		RIGHT	**15**	**103**	ADT 24,600
WEST	LEFT	**359**	**541**	WEST LEG	WEST	LEFT	**176**	**322**	WEST LEG
BOUND	THRU	**72**	**427**	RATIO **5.6%**	BOUND	THRU	**70**	**408**	RATIO **6.3%**
	RIGHT	**18**	**42**	ADT 19,200		RIGHT	**49**	**103**	ADT 19,200

Indian Canyon Drive (NS) / 20th Avenue (EW) - #8

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
21 794 3
< v >
23 ^ ^ 111
0 > < 32
68 v v 263
< ^ >
22 239 4

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
818 373
v ^
75 < IN = 1580 < 406
91 > OUT = 1580 > 7
v ^
1125 265

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
21 794 3
< v >
23 ^ ^ 111
0 > < 32
68 v v 263
< ^ >
22 239 4

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1964 1374
v ^
83 < IN = 3802 < 161
150 > OUT = 3802 > 73
v ^
2272 1527

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
27 53
v ^
0 < IN = 87 < 3
1 > OUT = 87 > 3
v ^
31 56

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 — 755 540
PHF FOR TRUCKS: 0.333
v ^
32 < IN = 1474 < 62
57 > OUT = 1474 > 29
v ^
874 599

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
7401 3853
v ^
878 < IN = 16038 < 1095
2356 > OUT = 16038 > 1355
v ^
9952 5186

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
101 191
v ^
50 < IN = 445 < 44
35 > OUT = 446 > 36
v ^
169 265

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 — 2846 1528
PHF FOR TRUCKS: 0.333
v ^
350 < IN = 6243 < 431
907 > OUT = 6243 > 527
v ^
3838 2059

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 — 2091 988
FACTOR = 1.00
v ^
319 < < 369
850 > > 498
v ^
2964 1460

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % — 2090 990
v ^
320 < IN = 4770 < 370
850 > OUT = 4770 > 500
v ^
2960 1460

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS — 1370 650
v ^
210 < < 240
560 > > 330
v ^
1940 960

NEW PROJECTED VOLUMES (PCEs): 2040
2190 1020
v ^
290 < < 650
650 > > 340
v ^
3070 1230

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
18 410 5
< v >
22 ^ ^ 238
1 > < 27
67 v v 218
< ^ >
42 586 6

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
433 846
v ^
87 < IN = 1640 < 483
90 > OUT = 1640 > 12
v ^
695 634

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
18 410 5
< v >
22 ^ ^ 238
1 > < 27
67 v v 218
< ^ >
42 586 6

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
2549 3521
v ^
238 < IN = 8189 < 176
132 > OUT = 8189 > 1583
v ^
2847 5332

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
58 26
v ^
2 < IN = 103 < 5
1 > OUT = 102 > 11
v ^
63 39

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 — 728 992
PHF FOR TRUCKS: 0.25
v ^
67 < IN = 2319 < 51
37 > OUT = 2318 > 446
v ^
813 1503

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
6744 11127
v ^
4448 < IN = 26541 < 2460
1749 > OUT = 26541 > 1430
v ^
9536 15588

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
159 283
v ^
150 < IN = 752 < 76
66 > OUT = 752 > 37
v ^
282 451

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 — 1928 3186
PHF FOR TRUCKS: 0.25
v ^
1283 < IN = 7619 < 708
506 > OUT = 7619 > 410
v ^
2741 4477

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 — 1200 2194
FACTOR = 1.00
v ^
1216 < < 657
469 > > -36
v ^
1928 2975

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % — 1200 2190
v ^
1220 < IN = 5300 < 660
470 > OUT = 5340 > 0
v ^
1930 2970

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS — 790 1440
v ^
800 < < 430
310 > > 0
v ^
1270 1950

NEW PROJECTED VOLUMES (PCEs): 2040
1220 2290
v ^
890 < < 910
400 > > 10
v ^
1970 2580

Indian Canyon Drive (NS) / 20th Avenue (EW) - #8

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**22**	SOUTH LEG		NORTH	LEFT	**42**	SOUTH LEG	
BOUND	THRU	**239**	IN ...	**1,230**	BOUND	THRU	**586**	IN ...	**2,580**
	RIGHT	**4**	OUT ...	**3,070**		RIGHT	**6**	OUT ...	**1,970**
SOUTH	LEFT	**3**	NORTH LEG		SOUTH	LEFT	**5**	NORTH LEG	
BOUND	THRU	**794**	IN ...	**2,190**	BOUND	THRU	**410**	IN ...	**1,220**
	RIGHT	**21**	OUT ...	**1,020**		RIGHT	**18**	OUT ...	**2,290**
EAST	LEFT	**23**	WEST LEG		EAST	LEFT	**22**	WEST LEG	
BOUND	THRU	**0**	IN ...	**650**	BOUND	THRU	**1**	IN ...	**400**
	RIGHT	**68**	OUT ...	**290**		RIGHT	**67**	OUT ...	**890**
WEST	LEFT	**263**	EAST LEG		WEST	LEFT	**218**	EAST LEG	
BOUND	THRU	**32**	IN ...	**650**	BOUND	THRU	**27**	IN ...	**910**
	RIGHT	**111**	OUT ...	**340**		RIGHT	**238**	OUT ...	**10**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**22**	**158**	NORTH LEG		NORTH	LEFT	**42**	**631**	NORTH LEG	
BOUND	THRU	**239**	**806**	RATIO	**6.3%**	BOUND	THRU	**586**	**1,950**	RATIO	**6.9%**
	RIGHT	**4**	**258**	ADT	51,200		RIGHT	**6**	**7**	ADT	51,200
SOUTH	LEFT	**3**	**82**	SOUTH LEG		SOUTH	LEFT	**5**	**6**	SOUTH LEG	
BOUND	THRU	**794**	**2,050**	RATIO	**6.2%**	BOUND	THRU	**410**	**1,126**	RATIO	**6.6%**
	RIGHT	**21**	**64**	ADT	68,900		RIGHT	**18**	**115**	ADT	68,900
EAST	LEFT	**23**	**103**	EAST LEG		EAST	LEFT	**22**	**59**	EAST LEG	
BOUND	THRU	**0**	**0**	RATIO	**2.9%**	BOUND	THRU	**1**	**1**	RATIO	**2.7%**
	RIGHT	**68**	**548**	ADT	34,100		RIGHT	**67**	**347**	ADT	34,100
WEST	LEFT	**263**	**472**	WEST LEG		WEST	LEFT	**218**	**497**	WEST LEG	
BOUND	THRU	**32**	**68**	RATIO	**3.4%**	BOUND	THRU	**27**	**144**	RATIO	**4.7%**
	RIGHT	**111**	**122**	ADT	27,500		RIGHT	**238**	**281**	ADT	27,500

Little Morongo Road (NS) / Mission Lakes Boulevard (EW) - #9

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 17 68 20
< v >
13 ^ ^ 20
87 > < 113
64 v v 119
< ^ >
42 31 59

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 105 64
v ^
172 < IN = 653 < 252
164 > OUT = 653 > 166
v ^
251 132

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 17 68 20
< v >
13 ^ ^ 20
87 > < 113
64 v v 119
< ^ >
42 31 59

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 363 300
v ^
158 < IN = 906 < 89
304 > OUT = 906 > 59
v ^
389 150

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 5 4
v ^
3 < IN = 13 < 1
6 > OUT = 13 > 1
v ^
5 1

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 140 115
PHF FOR TRUCKS: 0.333 v ^
61 < IN = 349 < 34
118 > OUT = 349 > 23
v ^
149 57

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 591 294
v ^
142 < IN = 2971 < 1173
507 > OUT = 2970 > 661
v ^
1873 700

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 4 4
v ^
3 < IN = 35 < 12
7 > OUT = 36 > 12
v ^
17 12

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 226 113
PHF FOR TRUCKS: 0.333 v ^
55 < IN = 1141 < 450
195 > OUT = 1141 > 255
v ^
717 270

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 86 -2
FACTOR = 1.00 v ^
-6 < < 416
77 > > 232
v ^
568 213

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 90 10
v ^
20 < IN = 800 < 420
80 > OUT = 830 > 230
v ^
570 210

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 60 10
v ^
10 < < 280
50 > > 150
v ^
370 140

NEW PROJECTED VOLUMES (PCEs): 2040
170 70
v ^
180 < < 530
210 > > 320
v ^
620 270

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 11 61 11
< v >
23 ^ ^ 22
88 > < 88
60 v v 44
< ^ >
87 67 63

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 83 112
v ^
186 < IN = 625 < 154
171 > OUT = 625 > 162
v ^
165 217

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 11 61 11
< v >
23 ^ ^ 22
88 > < 88
60 v v 44
< ^ >
87 67 63

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 635 1034
v ^
558 < IN = 2367 < 158
871 > OUT = 2367 > 198
v ^
577 703

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 7 8
v ^
9 < IN = 28 < 2
10 > OUT = 28 > 2
v ^
9 9

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 180 292
PHF FOR TRUCKS: 0.25 v ^
158 < IN = 670 < 45
246 > OUT = 670 > 56
v ^
164 199

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 702 1204
v ^
1503 < IN = 6397 < 1364
489 > OUT = 6397 > 2018
v ^
1672 3842

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 6 6
v ^
18 < IN = 64 < 18
8 > OUT = 63 > 17
v ^
22 32

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 198 339
PHF FOR TRUCKS: 0.25 v ^
425 < IN = 1807 < 386
139 > OUT = 1807 > 569
v ^
474 1084

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 19 47
FACTOR = 1.00 v ^
267 < < 342
-107 > > 513
v ^
310 885

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 20 50
v ^
270 < IN = 1260 < 340
20 > OUT = 1140 > 510
v ^
310 880

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 10 30
v ^
180 < < 220
10 > > 330
v ^
200 580

NEW PROJECTED VOLUMES (PCEs): 2040
90 140
v ^
370 < < 370
180 > > 490
v ^
370 800

Little Morongo Road (NS) / Mission Lakes Boulevard (EW) - #9

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**42**	SOUTH LEG		NORTH	LEFT	**87**	SOUTH LEG	
BOUND	THRU	**31**	IN ...	**270**	BOUND	THRU	**67**	IN ...	**800**
	RIGHT	**59**	OUT ...	**620**		RIGHT	**63**	OUT ...	**370**
SOUTH	LEFT	**20**	NORTH LEG		SOUTH	LEFT	**11**	NORTH LEG	
BOUND	THRU	**68**	IN ...	**170**	BOUND	THRU	**61**	IN ...	**90**
	RIGHT	**17**	OUT ...	**70**		RIGHT	**11**	OUT ...	**140**
EAST	LEFT	**13**	WEST LEG		EAST	LEFT	**23**	WEST LEG	
BOUND	THRU	**87**	IN ...	**210**	BOUND	THRU	**88**	IN ...	**180**
	RIGHT	**64**	OUT ...	**180**		RIGHT	**60**	OUT ...	**370**
WEST	LEFT	**119**	EAST LEG		WEST	LEFT	**44**	EAST LEG	
BOUND	THRU	**113**	IN ...	**530**	BOUND	THRU	**88**	IN ...	**370**
	RIGHT	**20**	OUT ...	**320**		RIGHT	**22**	OUT ...	**490**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**42**	**51**	NORTH LEG	NORTH	LEFT	**87**	**244**	NORTH LEG
BOUND	THRU	**31**	**40**	RATIO **1.0%**	BOUND	THRU	**67**	**116**	RATIO **1.0%**
	RIGHT	**59**	**181**	ADT 25,200		RIGHT	**63**	**400**	ADT 25,200
SOUTH	LEFT	**20**	**31**	SOUTH LEG	SOUTH	LEFT	**11**	**12**	SOUTH LEG
BOUND	THRU	**68**	**130**	RATIO **3.2%**	BOUND	THRU	**61**	**73**	RATIO **4.1%**
	RIGHT	**17**	**19**	ADT 27,500		RIGHT	**11**	**12**	ADT 27,500
EAST	LEFT	**13**	**14**	EAST LEG	EAST	LEFT	**23**	**25**	EAST LEG
BOUND	THRU	**87**	**108**	RATIO **11.0%**	BOUND	THRU	**88**	**97**	RATIO **11.1%**
	RIGHT	**64**	**97**	ADT 7,800		RIGHT	**60**	**85**	ADT 7,800
WEST	LEFT	**119**	**393**	WEST LEG	WEST	LEFT	**44**	**212**	WEST LEG
BOUND	THRU	**113**	**124**	RATIO **5.2%**	BOUND	THRU	**88**	**122**	RATIO **7.3%**
	RIGHT	**20**	**23**	ADT 8,000		RIGHT	**22**	**24**	ADT 8,000

Little Morongo Road (NS) / Pierson Boulevard (EW) - #10

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 26 147 80
< v >
31 ^ ^ 51
200 > < 179
54 v v 80
< ^ >
17 54 71

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 253 136
v ^
222 < IN = 990 < 310
285 > OUT = 990 > 351
v ^
281 142

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 26 147 80
< v >
31 ^ ^ 51
200 > < 179
54 v v 80
< ^ >
17 54 71

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 389 150
v ^
757 < IN = 1730 < 856
344 > OUT = 1730 > 588
v ^
235 141

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 5 1
v ^
18 < IN = 39 < 19
14 > OUT = 39 > 18
v ^
2 1

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 149 57
PHF FOR TRUCKS: 0.333 v ^
294 < IN = 670 < 332
135 > OUT = 670 > 229
v ^
90 54

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 2680 1147
v ^
1512 < IN = 6304 < 1545
1209 > OUT = 6303 > 1157
v ^
2487 870

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 22 18
v ^
23 < IN = 77 < 19
21 > OUT = 77 > 18
v ^
18 15

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1026 442
PHF FOR TRUCKS: 0.333 v ^
582 < IN = 2421 < 593
466 > OUT = 2421 > 446
v ^
951 336

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 876 385
FACTOR = 1.00 v ^
289 < < 262
331 > > 216
v ^
861 282

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 880 380
v ^
290 < IN = 1750 < 260
330 > OUT = 1750 > 220
v ^
860 280

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 580 250
v ^
190 < < 170
220 > > 140
v ^
560 180

NEW PROJECTED VOLUMES (PCEs): 2040
830 390
v ^
410 < < 480
510 > > 490
v ^
840 320

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 14 95 57
< v >
23 ^ ^ 77
171 > < 174
27 v v 38
< ^ >
52 123 55

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 166 223
v ^
240 < IN = 906 < 289
221 > OUT = 906 > 283
v ^
160 230

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 14 95 57
< v >
23 ^ ^ 77
171 > < 174
27 v v 38
< ^ >
52 123 55

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 577 703
v ^
1014 < IN = 3803 < 1356
1444 > OUT = 3803 > 1770
v ^
316 426

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 9 9
v ^
26 < IN = 68 < 30
27 > OUT = 69 > 32
v ^
2 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 164 199
PHF FOR TRUCKS: 0.25 v ^
290 < IN = 1082 < 387
411 > OUT = 1082 > 504
v ^
89 120

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 2646 5244
v ^
2569 < IN = 12158 < 3332
1737 > OUT = 12157 > 2545
v ^
1799 4443

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 31 40
v ^
39 < IN = 125 < 44
19 > OUT = 125 > 26
v ^
20 31

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 749 1478
PHF FOR TRUCKS: 0.25 v ^
729 < IN = 3435 < 944
491 > OUT = 3435 > 719
v ^
509 1252

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 585 1279
FACTOR = 1.00 v ^
439 < < 557
80 > > 216
v ^
420 1132

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 580 1280
v ^
440 < IN = 2350 < 560
80 > OUT = 2360 > 220
v ^
420 1130

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 380 840
v ^
290 < < 370
50 > > 140
v ^
280 740

NEW PROJECTED VOLUMES (PCEs): 2040
550 1060
v ^
530 < < 660
270 > > 420
v ^
440 970

Little Morongo Road (NS) / Pierson Boulevard (EW) - #10

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**17**	SOUTH LEG		NORTH	LEFT	**52**	SOUTH LEG	
BOUND	THRU	**54**	IN ...	**320**	BOUND	THRU	**123**	IN ...	**970**
	RIGHT	**71**	OUT ...	**840**		RIGHT	**55**	OUT ...	**440**
SOUTH	LEFT	**80**	NORTH LEG		SOUTH	LEFT	**57**	NORTH LEG	
BOUND	THRU	**147**	IN ...	**830**	BOUND	THRU	**95**	IN ...	**550**
	RIGHT	**26**	OUT ...	**390**		RIGHT	**14**	OUT ...	**1,060**
EAST	LEFT	**31**	WEST LEG		EAST	LEFT	**23**	WEST LEG	
BOUND	THRU	**200**	IN ...	**510**	BOUND	THRU	**171**	IN ...	**270**
	RIGHT	**54**	OUT ...	**410**		RIGHT	**27**	OUT ...	**530**
WEST	LEFT	**80**	EAST LEG		WEST	LEFT	**38**	EAST LEG	
BOUND	THRU	**179**	IN ...	**480**	BOUND	THRU	**174**	IN ...	**660**
	RIGHT	**51**	OUT ...	**490**		RIGHT	**77**	OUT ...	**420**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**17**	**45**	NORTH LEG	NORTH	LEFT	**52**	**153**	NORTH LEG
BOUND	THRU	**54**	**185**	RATIO **3.7%**	BOUND	THRU	**123**	**714**	RATIO **4.9%**
	RIGHT	**71**	**89**	ADT 33,000		RIGHT	**55**	**105**	ADT 33,000
SOUTH	LEFT	**80**	**148**	SOUTH LEG	SOUTH	LEFT	**57**	**149**	SOUTH LEG
BOUND	THRU	**147**	**577**	RATIO **10.6%**	BOUND	THRU	**95**	**342**	RATIO **13.0%**
	RIGHT	**26**	**102**	ADT 10,900		RIGHT	**14**	**56**	ADT 10,900
EAST	LEFT	**31**	**108**	EAST LEG	EAST	LEFT	**23**	**68**	EAST LEG
BOUND	THRU	**200**	**254**	RATIO **3.9%**	BOUND	THRU	**171**	**188**	RATIO **4.4%**
	RIGHT	**54**	**146**	ADT 24,800		RIGHT	**27**	**36**	ADT 24,800
WEST	LEFT	**80**	**118**	WEST LEG	WEST	LEFT	**38**	**62**	WEST LEG
BOUND	THRU	**179**	**263**	RATIO **2.4%**	BOUND	THRU	**174**	**320**	RATIO **2.2%**
	RIGHT	**51**	**97**	ADT 37,600		RIGHT	**77**	**279**	ADT 37,600

Little Morongo Road (NS) / Two Bunch Palms Trail (EW) - #11

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 1 211 84
< v >
1 ^ ^ 29
8 > < 6
15 v v 187
< ^ >
2 123 80

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 296 153
v ^
9 < IN = 747 < 222
24 > OUT = 747 > 172
v ^
413 205

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 1 211 84
< v >
1 ^ ^ 29
8 > < 6
15 v v 187
< ^ >
2 123 80

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 249 149
v ^
0 < IN = 536 < 128
0 > OUT = 548 > 43
v ^
356 159

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 2 1
v ^
0 < IN = 6 < 2
0 > OUT = 5 > 1
v ^
3 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 95 57
PHF FOR TRUCKS: 0.333 v ^
0 < IN = 206 < 49
0 > OUT = 210 > 17
v ^
136 61

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 2571 639
v ^
704 < IN = 4834 < 841
422 > OUT = 4833 > 290
v ^
3200 1000

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 16 10
v ^
11 < IN = 61 < 13
8 > OUT = 61 > 13
v ^
27 24

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 982 246
PHF FOR TRUCKS: 0.333 v ^
271 < IN = 1857 < 324
163 > OUT = 1857 > 115
v ^
1225 388

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 887 189
FACTOR = 1.00 v ^
271 < < 275
163 > > 98
v ^
1089 327

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 890 190
v ^
270 < IN = 1650 < 270
160 > OUT = 1650 > 100
v ^
1090 330

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 580 120
v ^
180 < < 180
110 > > 70
v ^
720 220

NEW PROJECTED VOLUMES (PCEs): 2040
880 270
v ^
190 < < 400
130 > > 240
v ^
1130 430

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 3 108 45
< v >
1 ^ ^ 69
11 > < 9
4 v v 114
< ^ >
14 167 203

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 156 237
v ^
26 < IN = 748 < 192
16 > OUT = 748 > 259
v ^
226 384

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 3 108 45
< v >
1 ^ ^ 69
11 > < 9
4 v v 114
< ^ >
14 167 203

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 345 438
v ^
0 < IN = 1325 < 122
0 > OUT = 1331 > 482
v ^
411 858

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 2 2
v ^
0 < IN = 10 < 2
0 > OUT = 9 > 4
v ^
3 6

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 97 123
PHF FOR TRUCKS: 0.25 v ^
0 < IN = 374 < 35
0 > OUT = 375 > 136
v ^
116 242

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 1536 4197
v ^
1191 < IN = 9804 < 921
1107 > OUT = 9804 > 1957
v ^
2459 6240

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 17 27
v ^
17 < IN = 110 < 24
16 > OUT = 108 > 24
v ^
40 53

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 434 1182
PHF FOR TRUCKS: 0.25 v ^
338 < IN = 2773 < 264
314 > OUT = 2772 > 554
v ^
699 1760

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 337 1059
FACTOR = 1.00 v ^
338 < < 229
314 > > 418
v ^
583 1519

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 340 1060
v ^
340 < IN = 2400 < 230
310 > OUT = 2400 > 420
v ^
580 1520

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 220 700
v ^
220 < < 150
200 > > 280
v ^
380 1000

NEW PROJECTED VOLUMES (PCEs): 2040
380 940
v ^
250 < < 340
220 > > 540
v ^
610 1380

Little Morongo Road (NS) / Two Bunch Palms Trail (EW) - #11

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**14**	SOUTH LEG	
BOUND	THRU	**123**	IN ...	**430**	BOUND	THRU	**167**	IN ...	**1,380**
	RIGHT	**80**	OUT ...	**1,130**		RIGHT	**203**	OUT ...	**610**
SOUTH	LEFT	**84**	NORTH LEG		SOUTH	LEFT	**45**	NORTH LEG	
BOUND	THRU	**211**	IN ...	**880**	BOUND	THRU	**108**	IN ...	**380**
	RIGHT	**1**	OUT ...	**270**		RIGHT	**3**	OUT ...	**940**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**1**	WEST LEG	
BOUND	THRU	**8**	IN ...	**130**	BOUND	THRU	**11**	IN ...	**220**
	RIGHT	**15**	OUT ...	**190**		RIGHT	**4**	OUT ...	**250**
WEST	LEFT	**187**	EAST LEG		WEST	LEFT	**114**	EAST LEG	
BOUND	THRU	**6**	IN ...	**400**	BOUND	THRU	**9**	IN ...	**340**
	RIGHT	**29**	OUT ...	**240**		RIGHT	**69**	OUT ...	**540**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**71**	NORTH LEG	NORTH	LEFT	**14**	**189**	NORTH LEG
BOUND	THRU	**123**	**243**	RATIO **5.1%**	BOUND	THRU	**167**	**809**	RATIO **5.9%**
	RIGHT	**80**	**111**	ADT 22,600		RIGHT	**203**	**392**	ADT 22,600
SOUTH	LEFT	**84**	**108**	SOUTH LEG	SOUTH	LEFT	**45**	**50**	SOUTH LEG
BOUND	THRU	**211**	**737**	RATIO **6.6%**	BOUND	THRU	**108**	**314**	RATIO **8.5%**
	RIGHT	**1**	**33**	ADT 23,400		RIGHT	**3**	**22**	ADT 23,400
EAST	LEFT	**1**	**4**	EAST LEG	EAST	LEFT	**1**	**23**	EAST LEG
BOUND	THRU	**8**	**21**	RATIO **2.2%**	BOUND	THRU	**11**	**100**	RATIO **3.1%**
	RIGHT	**15**	**105**	ADT 28,800		RIGHT	**4**	**100**	ADT 28,800
WEST	LEFT	**187**	**288**	WEST LEG	WEST	LEFT	**114**	**196**	WEST LEG
BOUND	THRU	**6**	**87**	RATIO **1.1%**	BOUND	THRU	**9**	**39**	RATIO **1.6%**
	RIGHT	**29**	**32**	ADT 29,300		RIGHT	**69**	**108**	ADT 29,300

Little Morongo Road (NS) / Dillon Road (EW) - #12

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):							
2019			228	2	164		
			<	v	>		
	104	^				^	118
	115	>				<	261
	1	v				v	1
			<	^	>		
			1	2	1		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):							
2019				394	224		
				v	^		
	490	<		IN =	998	<	380
	220	>		OUT =	998	>	280
				v	^		
				4	4		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):							
			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):							
2019			228	2	164		
			<	v	>		
	104	^				^	118
	115	>				<	261
	1	v				v	1
			<	^	>		
			1	2	1		
EXISTING PEAK PERIOD MODEL YEAR (AUTO):							
2008				354	119		
				v	^		
	548	<		IN =	1162	<	372
	414	>		OUT =	1161	>	373
				v	^		
				121	22		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2008				5	4		
				v	^		
	19	<		IN =	38	<	15
	18	>		OUT =	39	>	15
				v	^		
				1	0		
EXISTING PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				136	47		
PHF FOR TRUCKS: 0.333				v	^		
	215	<		IN =	454	<	146
	163	>		OUT =	454	>	147
				v	^		
				46	8		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):							
2040				3036	690		
				v	^		
	2971	<		IN =	8049	<	2836
	1536	>		OUT =	8050	>	1489
				v	^		
				2900	641		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2040				40	33		
				v	^		
	59	<		IN =	161	<	39
	59	>		OUT =	160	>	38
				v	^		
				30	23		
FUTURE PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.38				1167	273		
PHF FOR TRUCKS: 0.333				v	^		
	1149	<		IN =	3112	<	1091
	603	>		OUT =	3112	>	578
				v	^		
				1112	251		
RAW GROWTH (PCEs): 2008 TO 2040							
CONVERSION OF TRUCKS TO: 2040				1031	227		
FACTOR = 1.00				v	^		
	934	<				<	944
	440	>				>	432
				v	^		
				1066	243		
ADJUSTED GROWTH (PCEs): 2008 TO 2040							
10 MINIMUM GROWTH %				1030	230		
				v	^		
	930	<		IN =	2650	<	940
	440	>		OUT =	2660	>	430
				v	^		
				1070	240		
PRORATED GROWTH (PCEs): 2019 TO 2040							
21 YEARS				680	150		
				v	^		
	610	<				<	620
	290	>				>	280
				v	^		
				700	160		
NEW PROJECTED VOLUMES (PCEs): 2040							
				1070	370		
				v	^		
	1100	<				<	1000
	510	>				>	560
				v	^		
				700	160		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):							
2019			131	2	104		
			<	v	>		
	226	^				^	157
	243	>				<	185
	1	v				v	1
			<	^	>		
			1	2	1		
EXISTING PEAK HOUR COUNT YEAR (AUTOS):							
2019				237	385		
				v	^		
	317	<		IN =	1054	<	343
	470	>		OUT =	1054	>	348
				v	^		
				4	4		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):							
			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):							
2019			131	2	104		
			<	v	>		
	226	^				^	157
	243	>				<	185
	1	v				v	1
			<	^	>		
			1	2	1		
EXISTING PEAK PERIOD MODEL YEAR (AUTO):							
2008				361	1800		
				v	^		
	898	<		IN =	3562	<	717
	1004	>		OUT =	3563	>	799
				v	^		
				66	1480		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2008				7	11		
				v	^		
	29	<		IN =	62	<	23
	27	>		OUT =	64	>	23
				v	^		
				1	5		
EXISTING PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.28				103	507		
PHF FOR TRUCKS: 0.25				v	^		
	259	<		IN =	1013	<	207
	288	>		OUT =	1014	>	229
				v	^		
				19	416		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):							
2040				2036	5674		
				v	^		
	3500	<		IN =	14410	<	3350
	4069	>		OUT =	14410	>	3286
				v	^		
				1950	4955		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):							
2040				64	69		
				v	^		
	106	<		IN =	258	<	77
	65	>		OUT =	258	>	41
				v	^		
				42	52		
FUTURE PEAK HOUR MODEL YEAR (PCEs):							
PHF FOR CARS: 0.28				586	1606		
PHF FOR TRUCKS: 0.25				v	^		
	1007	<		IN =	4099	<	957
	1156	>		OUT =	4099	>	930
				v	^		
				557	1400		
RAW GROWTH (PCEs): 2008 TO 2040							
CONVERSION OF TRUCKS TO: 2040				483	1099		
FACTOR = 1.00				v	^		
	748	<				<	751
	868	>				>	701
				v	^		
				538	985		
ADJUSTED GROWTH (PCEs): 2008 TO 2040							
10 MINIMUM GROWTH %				480	1100		
				v	^		
	750	<		IN =	3080	<	750
	870	>		OUT =	3090	>	700
				v	^		
				540	980		
PRORATED GROWTH (PCEs): 2019 TO 2040							
21 YEARS				320	720		
				v	^		
	490	<				<	490
	570	>				>	460
				v	^		
				350	640		
NEW PROJECTED VOLUMES (PCEs): 2040							
				560	1110		
				v	^		
	810	<				<	830
	1040	>				>	810
				v	^		
				350	640		

Little Morongo Road (NS) / Dillon Road (EW) - #12

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**2**	IN ...	**160**	BOUND	THRU	**2**	IN ...	**640**
	RIGHT	**1**	OUT ...	**700**		RIGHT	**1**	OUT ...	**350**
SOUTH	LEFT	**164**	NORTH LEG		SOUTH	LEFT	**104**	NORTH LEG	
BOUND	THRU	**2**	IN ...	**1,070**	BOUND	THRU	**2**	IN ...	**560**
	RIGHT	**228**	OUT ...	**370**		RIGHT	**131**	OUT ...	**1,110**
EAST	LEFT	**104**	WEST LEG		EAST	LEFT	**226**	WEST LEG	
BOUND	THRU	**115**	IN ...	**510**	BOUND	THRU	**243**	IN ...	**1,040**
	RIGHT	**1**	OUT ...	**1,100**		RIGHT	**1**	OUT ...	**810**
WEST	LEFT	**1**	EAST LEG		WEST	LEFT	**1**	EAST LEG	
BOUND	THRU	**261**	IN ...	**1,000**	BOUND	THRU	**185**	IN ...	**830**
	RIGHT	**118**	OUT ...	**560**		RIGHT	**157**	OUT ...	**810**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**1**	**49**	NORTH LEG	NORTH	LEFT	**1**	**168**	NORTH LEG
BOUND	THRU	**2**	**63**	RATIO **7.2%**	BOUND	THRU	**2**	**319**	RATIO **8.4%**
	RIGHT	**1**	**47**	ADT 19,900		RIGHT	**1**	**155**	ADT 19,900
SOUTH	LEFT	**164**	**300**	SOUTH LEG	SOUTH	LEFT	**104**	**171**	SOUTH LEG
BOUND	THRU	**2**	**330**	RATIO **4.1%**	BOUND	THRU	**2**	**157**	RATIO **4.7%**
	RIGHT	**228**	**436**	ADT 21,100		RIGHT	**131**	**234**	ADT 21,100
EAST	LEFT	**104**	**129**	EAST LEG	EAST	LEFT	**226**	**464**	EAST LEG
BOUND	THRU	**115**	**213**	RATIO **7.6%**	BOUND	THRU	**243**	**484**	RATIO **8.0%**
	RIGHT	**1**	**167**	ADT 20,500		RIGHT	**1**	**95**	ADT 20,500
WEST	LEFT	**1**	**203**	WEST LEG	WEST	LEFT	**1**	**97**	WEST LEG
BOUND	THRU	**261**	**615**	RATIO **8.0%**	BOUND	THRU	**185**	**408**	RATIO **9.2%**
	RIGHT	**118**	**178**	ADT 20,100		RIGHT	**157**	**328**	ADT 20,100

Little Morongo Road (NS) / 20th Avenue (EW) - #13

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		2	1	1		
		<	v	>		
2	^				^	1
1	>				<	2
1	v				v	1
		<	^	>		
		2	1	1		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		4	4		
		v	^		
6	<	IN =	16	<	4
4	>	OUT =	16	>	3
		v	^		
		3	4		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		2	1	1		
		<	v	>		
2	^				^	1
1	>				<	2
1	v				v	1
		<	^	>		
		2	1	1		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		32	1		
		v	^		
161	<	IN =	246	<	141
73	>	OUT =	247	>	85
		v	^		
		0	0		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		0	0		
		v	^		
3	<	IN =	6	<	3
3	>	OUT =	6	>	3
		v	^		
		0	0		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		12	0		
		v	^		
62	<	IN =	95	<	55
29	>	OUT =	96	>	33
		v	^		
		0	0		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		1697	439		
		v	^		
1095	<	IN =	4649	<	945
1095	>	OUT =	4649	>	728
		v	^		
		2387	912		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		18	14		
		v	^		
48	<	IN =	126	<	25
38	>	OUT =	126	>	26
		v	^		
		38	45		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		651	171		
		v	^		
432	<	IN =	1809	<	367
429	>	OUT =	1809	>	285
		v	^		
		920	362		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		639	171		
		v	^		
370	<			<	313
400	>			>	252
		v	^		
		920	362		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		640	170		
		v	^		
370	<	IN =	1710	<	310
400	>	OUT =	1710	>	250
		v	^		
		920	360		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		420	110		
		v	^		
240	<			<	200
260	>			>	160
		v	^		
		600	240		

NEW PROJECTED VOLUMES (PCEs): 2040

		420	110		
		v	^		
250	<			<	200
260	>			>	160
		v	^		
		600	240		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		2	1	1		
		<	v	>		
2	^				^	1
1	>				<	2
1	v				v	1
		<	^	>		
		2	1	1		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		4	4		
		v	^		
6	<	IN =	16	<	4
4	>	OUT =	16	>	3
		v	^		
		3	4		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		2	1	1		
		<	v	>		
2	^				^	1
1	>				<	2
1	v				v	1
		<	^	>		
		2	1	1		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		16	1006		
		v	^		
176	<	IN =	1765	<	166
1583	>	OUT =	1765	>	583
		v	^		
		0	0		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		0	4		
		v	^		
5	<	IN =	16	<	5
11	>	OUT =	16	>	7
		v	^		
		0	0		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		4	283		
		v	^		
51	<	IN =	498	<	48
446	>	OUT =	498	>	165
		v	^		
		0	0		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		1150	3015		
		v	^		
2667	<	IN =	8826	<	1360
2177	>	OUT =	8827	>	963
		v	^		
		2182	4139		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		24	25		
		v	^		
86	<	IN =	189	<	51
57	>	OUT =	189	>	14
		v	^		
		64	57		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		328	850		
		v	^		
768	<	IN =	2519	<	394
624	>	OUT =	2519	>	273
		v	^		
		627	1173		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		324	568		
		v	^		
718	<			<	346
178	>			>	108
		v	^		
		627	1173		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		320	570		
		v	^		
720	<	IN =	2020	<	350
180	>	OUT =	2030	>	110
		v	^		
		630	1170		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		210	370		
		v	^		
470	<			<	230
120	>			>	70
		v	^		
		410	770		

NEW PROJECTED VOLUMES (PCEs): 2040

		210	370		
		v	^		
480	<			<	230
120	>			>	70
		v	^		
		410	770		

Little Morongo Road (NS) / 20th Avenue (EW) - #13

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**2**	SOUTH LEG		NORTH	LEFT	**2**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**240**	BOUND	THRU	**1**	IN ...	**770**
	RIGHT	**1**	OUT ...	**600**		RIGHT	**1**	OUT ...	**410**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**1**	IN ...	**420**	BOUND	THRU	**1**	IN ...	**210**
	RIGHT	**2**	OUT ...	**110**		RIGHT	**2**	OUT ...	**370**
EAST	LEFT	**2**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**1**	IN ...	**260**	BOUND	THRU	**1**	IN ...	**120**
	RIGHT	**1**	OUT ...	**250**		RIGHT	**1**	OUT ...	**480**
WEST	LEFT	**1**	EAST LEG		WEST	LEFT	**1**	EAST LEG	
BOUND	THRU	**2**	IN ...	**200**	BOUND	THRU	**2**	IN ...	**230**
	RIGHT	**1**	OUT ...	**160**		RIGHT	**1**	OUT ...	**70**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**2**	**119**	NORTH LEG	NORTH	LEFT	**2**	**399**	NORTH LEG
BOUND	THRU	**1**	**48**	RATIO **3.0%**	BOUND	THRU	**1**	**306**	RATIO **3.2%**
	RIGHT	**1**	**73**	ADT 17,900		RIGHT	**1**	**61**	ADT 17,900
SOUTH	LEFT	**1**	**53**	SOUTH LEG	SOUTH	LEFT	**1**	**6**	SOUTH LEG
BOUND	THRU	**1**	**280**	RATIO **3.6%**	BOUND	THRU	**1**	**164**	RATIO **5.1%**
	RIGHT	**2**	**87**	ADT 23,100		RIGHT	**2**	**41**	ADT 23,100
EAST	LEFT	**2**	**45**	EAST LEG	EAST	LEFT	**2**	**33**	EAST LEG
BOUND	THRU	**1**	**34**	RATIO **4.9%**	BOUND	THRU	**1**	**3**	RATIO **4.1%**
	RIGHT	**1**	**181**	ADT 7,300		RIGHT	**1**	**85**	ADT 7,300
WEST	LEFT	**1**	**139**	WEST LEG	WEST	LEFT	**1**	**161**	WEST LEG
BOUND	THRU	**2**	**43**	RATIO **4.8%**	BOUND	THRU	**2**	**40**	RATIO **5.6%**
	RIGHT	**1**	**17**	ADT 10,700		RIGHT	**1**	**31**	ADT 10,700

Palm Drive (NS) / Mission Lakes Boulevard (EW) - #14

MORNING PEAK HOUR	EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

MORNING PEAK HOUR

2019

		4	24	1		
		<	v	>		
4	^				^	2
30	>				<	39
211	v				v	70
		<	^	>		
		208	14	22		

EVENING PEAK HOUR

2019

		3	6	1		
		<	v	>		
2	^				^	1
29	>				<	20
150	v				v	35
		<	^	>		
		213	17	52		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

MORNING PEAK HOUR

2019

		29	20		
		v	^		
251	<	IN =	629	<	111
245	>	OUT =	629	>	53
		v	^		
		305	244		

EVENING PEAK HOUR

2019

		10	20		
		v	^		
236	<	IN =	529	<	56
181	>	OUT =	529	>	82
		v	^		
		191	282		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

MORNING PEAK HOUR

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2.0 4+: 3.0

EVENING PEAK HOUR

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

MORNING PEAK HOUR

2019

		4	24	1		
		<	v	>		
4	^				^	2
30	>				<	39
211	v				v	70
		<	^	>		
		208	14	22		

EVENING PEAK HOUR

2019

		3	6	1		
		<	v	>		
2	^				^	1
29	>				<	20
150	v				v	35
		<	^	>		
		213	17	52		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR

2008

		0	0		
		v	^		
237	<	IN =	300	<	0
58	>	OUT =	300	>	0
		v	^		
		63	242		

EVENING PEAK HOUR

2008

		0	0		
		v	^		
418	<	IN =	1092	<	0
666	>	OUT =	1092	>	0
		v	^		
		674	426		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR

2008

		0	0		
		v	^		
3	<	IN =	4	<	0
2	>	OUT =	4	>	0
		v	^		
		1	2		

EVENING PEAK HOUR

2008

		0	0		
		v	^		
2	<	IN =	5	<	0
3	>	OUT =	5	>	0
		v	^		
		3	2		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		0	0		
		v	^		
91	<	IN =	115	<	0
23	>	OUT =	115	>	0
		v	^		
		24	93		

EVENING PEAK HOUR

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		0	0		
		v	^		
118	<	IN =	307	<	0
187	>	OUT =	307	>	0
		v	^		
		189	120		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

MORNING PEAK HOUR

2040

		0	0		
		v	^		
391	<	IN =	484	<	0
88	>	OUT =	484	>	0
		v	^		
		93	396		

EVENING PEAK HOUR

2040

		0	0		
		v	^		
621	<	IN =	1304	<	0
671	>	OUT =	1309	>	0
		v	^		
		688	633		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

MORNING PEAK HOUR

2040

		0	0		
		v	^		
2	<	IN =	3	<	0
1	>	OUT =	3	>	0
		v	^		
		1	2		

EVENING PEAK HOUR

2040

		0	0		
		v	^		
3	<	IN =	6	<	0
3	>	OUT =	6	>	0
		v	^		
		3	3		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

MORNING PEAK HOUR

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		0	0		
		v	^		
149	<	IN =	185	<	0
34	>	OUT =	185	>	0
		v	^		
		36	151		

EVENING PEAK HOUR

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		0	0		
		v	^		
175	<	IN =	367	<	0
189	>	OUT =	368	>	0
		v	^		
		193	178		

RAW GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		0	0		
		v	^		
58	<			<	0
11	>			>	0
		v	^		
		11	59		

EVENING PEAK HOUR

CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		0	0		
		v	^		
57	<			<	0
1	>			>	0
		v	^		
		4	58		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

MORNING PEAK HOUR

10 MINIMUM GROWTH %

		0	0		
		v	^		
60	<	IN =	90	<	10
20	>	OUT =	80	>	10
		v	^		
		10	60		

EVENING PEAK HOUR

10 MINIMUM GROWTH %

		0	0		
		v	^		
60	<	IN =	90	<	10
20	>	OUT =	70	>	10
		v	^		
		0	60		

PRORATED GROWTH (PCEs): 2019 TO 2040

MORNING PEAK HOUR

21 YEARS

		0	0		
		v	^		
40	<			<	10
10	>			>	10
		v	^		
		10	40		

EVENING PEAK HOUR

21 YEARS

		0	0		
		v	^		
40	<			<	10
10	>			>	10
		v	^		
		0	40		

NEW PROJECTED VOLUMES (PCEs): 2040

MORNING PEAK HOUR

		30	20		
		v	^		
290	<			<	120
260	>			>	60
		v	^		
		320	280		

EVENING PEAK HOUR

		10	20		
		v	^		
280	<			<	70
190	>			>	90
		v	^		
		190	320		

Palm Drive (NS) / Mission Lakes Boulevard (EW) - #14

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**208**	SOUTH LEG		NORTH	LEFT	**213**	SOUTH LEG	
BOUND	THRU	**14**	IN ...	**280**	BOUND	THRU	**17**	IN ...	**320**
	RIGHT	**22**	OUT ...	**320**		RIGHT	**52**	OUT ...	**190**
SOUTH	LEFT	**1**	NORTH LEG		SOUTH	LEFT	**1**	NORTH LEG	
BOUND	THRU	**24**	IN ...	**30**	BOUND	THRU	**6**	IN ...	**10**
	RIGHT	**4**	OUT ...	**20**		RIGHT	**3**	OUT ...	**20**
EAST	LEFT	**4**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**30**	IN ...	**260**	BOUND	THRU	**29**	IN ...	**190**
	RIGHT	**211**	OUT ...	**290**		RIGHT	**150**	OUT ...	**280**
WEST	LEFT	**70**	EAST LEG		WEST	LEFT	**35**	EAST LEG	
BOUND	THRU	**39**	IN ...	**120**	BOUND	THRU	**20**	IN ...	**70**
	RIGHT	**2**	OUT ...	**60**		RIGHT	**1**	OUT ...	**90**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**208**	**241**	NORTH LEG		NORTH	LEFT	**213**	**246**	NORTH LEG	
BOUND	THRU	**14**	**15**	RATIO	**0.4%**	BOUND	THRU	**17**	**19**	RATIO	**0.3%**
	RIGHT	**22**	**25**	ADT	12,100		RIGHT	**52**	**57**	ADT	12,100
SOUTH	LEFT	**1**	**1**	SOUTH LEG		SOUTH	LEFT	**1**	**1**	SOUTH LEG	
BOUND	THRU	**24**	**26**	RATIO	**4.6%**	BOUND	THRU	**6**	**7**	RATIO	**4.0%**
	RIGHT	**4**	**4**	ADT	13,300		RIGHT	**3**	**4**	ADT	13,300
EAST	LEFT	**4**	**4**	EAST LEG		EAST	LEFT	**2**	**2**	EAST LEG	
BOUND	THRU	**30**	**34**	RATIO	**4.3%**	BOUND	THRU	**29**	**36**	RATIO	**3.8%**
	RIGHT	**211**	**232**	ADT	4,300		RIGHT	**150**	**165**	ADT	4,300
WEST	LEFT	**70**	**77**	WEST LEG		WEST	LEFT	**35**	**39**	WEST LEG	
BOUND	THRU	**39**	**44**	RATIO	**14.3%**	BOUND	THRU	**20**	**30**	RATIO	**12.4%**
	RIGHT	**2**	**2**	ADT	3,900		RIGHT	**1**	**1**	ADT	3,900

Palm Drive (NS) / Pierson Boulevard (EW) - #15

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 27 453 24	2019 37 335 22
< v >	< v >
16 ^ ^ 27	42 ^ ^ 39
132 > < 170	101 > < 119
170 v v 74	161 v v 68
< ^ >	< ^ >
193 270 51	154 546 60
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 504 313	2019 394 627
v ^	v ^
390 < IN = 1607 < 271	310 < IN = 1684 < 226
318 > OUT = 1607 > 207	304 > OUT = 1684 > 183
v ^	v ^
697 514	564 760
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 27 453 24	2019 37 335 22
< v >	< v >
16 ^ ^ 27	42 ^ ^ 39
132 > < 170	101 > < 119
170 v v 74	161 v v 68
< ^ >	< ^ >
193 270 51	154 546 60
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 891 420	2008 1543 2196
v ^	v ^
1329 < IN = 3905 < 1157	2054 < IN = 9192 < 1710
982 > OUT = 3906 > 498	2324 > OUT = 9192 > 2547
v ^	v ^
1659 875	2395 3615
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 9 10	2008 15 13
v ^	v ^
15 < IN = 47 < 10	21 < IN = 70 < 17
14 > OUT = 47 > 10	23 > OUT = 70 > 16
v ^	v ^
12 14	20 15
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 342 163	PHF FOR CARS: 0.28 436 618
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
510 < IN = 1500 < 443	580 < IN = 2591 < 483
378 > OUT = 1500 > 193	656 > OUT = 2591 > 717
v ^	v ^
634 337	676 1016
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 1208 681	2040 1553 2148
v ^	v ^
1314 < IN = 3996 < 1115	2598 < IN = 7733 < 1624
1228 > OUT = 3996 > 825	2061 > OUT = 7732 > 1561
v ^	v ^
1176 445	1425 2495
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 7 9	2040 11 10
v ^	v ^
16 < IN = 42 < 13	28 < IN = 59 < 21
16 > OUT = 41 > 11	17 > OUT = 61 > 15
v ^	v ^
5 6	8 10
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 461 262	PHF FOR CARS: 0.28 438 604
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
505 < IN = 1532 < 428	734 < IN = 2180 < 460
472 > OUT = 1532 > 317	581 > OUT = 2180 > 441
v ^	v ^
449 171	401 701
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 120 99	CONVERSION OF TRUCKS TO: 2040 2 -14
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
-5 < < -15	154 < < -23
94 > > 125	-75 > > -276
v ^	v ^
-186 -166	-275 -315
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 120 100	10 MINIMUM GROWTH % 40 60
v ^	v ^
40 < IN = 240 < 30	150 < IN = 90 < 20
90 > OUT = 260 > 120	30 > OUT = 230 > 20
v ^	v ^
0 0	0 0
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 80 70	21 YEARS 30 40
v ^	v ^
30 < < 20	100 < < 10
60 > > 80	20 > > 10
v ^	v ^
0 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
580 380	420 670
v ^	v ^
420 < < 290	410 < < 240
380 > > 290	320 > > 190
v ^	v ^
700 510	560 760

Palm Drive (NS) / Pierson Boulevard (EW) - #15

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**193**	SOUTH LEG		NORTH	LEFT	**154**	SOUTH LEG	
BOUND	THRU	**270**	IN ...	**510**	BOUND	THRU	**546**	IN ...	**760**
	RIGHT	**51**	OUT ...	**700**		RIGHT	**60**	OUT ...	**560**
SOUTH	LEFT	**24**	NORTH LEG		SOUTH	LEFT	**22**	NORTH LEG	
BOUND	THRU	**453**	IN ...	**580**	BOUND	THRU	**335**	IN ...	**420**
	RIGHT	**27**	OUT ...	**380**		RIGHT	**37**	OUT ...	**670**
EAST	LEFT	**16**	WEST LEG		EAST	LEFT	**42**	WEST LEG	
BOUND	THRU	**132**	IN ...	**380**	BOUND	THRU	**101**	IN ...	**320**
	RIGHT	**170**	OUT ...	**420**		RIGHT	**161**	OUT ...	**410**
WEST	LEFT	**74**	EAST LEG		WEST	LEFT	**68**	EAST LEG	
BOUND	THRU	**170**	IN ...	**290**	BOUND	THRU	**119**	IN ...	**240**
	RIGHT	**27**	OUT ...	**290**		RIGHT	**39**	OUT ...	**190**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**193**	**212**	NORTH LEG	NORTH	LEFT	**154**	**187**	NORTH LEG
BOUND	THRU	**270**	**308**	RATIO **7.6%**	BOUND	THRU	**546**	**601**	RATIO **9.1%**
	RIGHT	**51**	**56**	ADT 12,800		RIGHT	**60**	**66**	ADT 12,800
SOUTH	LEFT	**24**	**44**	SOUTH LEG	SOUTH	LEFT	**22**	**26**	SOUTH LEG
BOUND	THRU	**453**	**498**	RATIO **8.5%**	BOUND	THRU	**335**	**369**	RATIO **9.4%**
	RIGHT	**27**	**49**	ADT 15,700		RIGHT	**37**	**66**	ADT 15,700
EAST	LEFT	**16**	**31**	EAST LEG	EAST	LEFT	**42**	**61**	EAST LEG
BOUND	THRU	**132**	**200**	RATIO **9.5%**	BOUND	THRU	**101**	**115**	RATIO **7.3%**
	RIGHT	**170**	**187**	ADT 6,600		RIGHT	**161**	**177**	ADT 6,600
WEST	LEFT	**74**	**81**	WEST LEG	WEST	LEFT	**68**	**75**	WEST LEG
BOUND	THRU	**170**	**202**	RATIO **18.0%**	BOUND	THRU	**119**	**157**	RATIO **15.6%**
	RIGHT	**27**	**42**	ADT 4,900		RIGHT	**39**	**44**	ADT 4,900

Palm Drive (NS) / Hacienda Avenue (EW) - #16

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 22 657 85	2019 26 541 112
< v >	< v >
23 ^ ^ 96	40 ^ ^ 97
124 > < 121	101 > < 126
93 v v 121	76 v v 170
< ^ >	< ^ >
50 565 44	84 880 69
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 764 684	2019 679 1017
v ^	v ^
193 < IN = 2001 < 338	236 < IN = 2322 < 393
240 > OUT = 2001 > 253	217 > OUT = 2322 > 282
v ^	v ^
871 659	787 1033
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 22 657 85	2019 26 541 112
< v >	< v >
23 ^ ^ 96	40 ^ ^ 97
124 > < 121	101 > < 126
93 v v 121	76 v v 170
< ^ >	< ^ >
50 565 44	84 880 69
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 1464 762	2008 2009 3000
v ^	v ^
459 < IN = 3352 < 125	889 < IN = 7125 < 391
667 > OUT = 3353 > 128	1210 > OUT = 7124 > 381
v ^	v ^
2004 1096	2854 3515
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 10 11	2008 16 11
v ^	v ^
9 < IN = 37 < 1	9 < IN = 49 < 4
8 > OUT = 38 > 2	13 > OUT = 49 > 2
v ^	v ^
16 18	27 16
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 560 293	PHF FOR CARS: 0.28 567 843
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
177 < IN = 1286 < 48	251 < IN = 2007 < 110
256 > OUT = 1287 > 49	342 > OUT = 2007 > 107
v ^	v ^
767 422	806 988
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 1073 385	2040 1207 2157
v ^	v ^
550 < IN = 2670 < 217	1673 < IN = 6485 < 798
704 > OUT = 2669 > 254	1316 > OUT = 6486 > 1026
v ^	v ^
1480 676	1630 3164
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 5 5	2040 7 9
v ^	v ^
7 < IN = 22 < 2	13 < IN = 39 < 8
6 > OUT = 22 > 3	10 > OUT = 39 > 7
v ^	v ^
7 9	10 14
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 409 148	PHF FOR CARS: 0.28 340 606
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
211 < IN = 1022 < 83	472 < IN = 1826 < 225
270 > OUT = 1022 > 98	371 > OUT = 1826 > 289
v ^	v ^
565 260	459 889
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 -150 -145	CONVERSION OF TRUCKS TO: 2040 -227 -237
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
34 < < 35	221 < < 115
13 > > 48	29 > > 182
v ^	v ^
-202 -163	-347 -99
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 80 70	10 MINIMUM GROWTH % 70 100
v ^	v ^
30 < IN = 140 < 40	220 < IN = 210 < 110
20 > OUT = 150 > 50	30 > OUT = 500 > 180
v ^	v ^
0 0	0 0
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 50 50	21 YEARS 50 70
v ^	v ^
20 < < 30	140 < < 70
10 > > 30	20 > > 120
v ^	v ^
0 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
810 730	730 1090
v ^	v ^
210 < < 370	380 < < 460
250 > > 280	240 > > 400
v ^	v ^
870 660	790 1030

Palm Drive (NS) / Two Bunch Palms Trail (EW) - #17

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		24	885	64		
		<	v	>		
40	^				^	45
182	>				<	139
373	v				v	259
		<	^	>		
		181	594	188		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		973	679		
		v	^		
344	<	IN =	2974	<	443
595	>	OUT =	2974	>	434
		v	^		
		1517	963		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		24	885	64		
		<	v	>		
40	^				^	45
182	>				<	139
373	v				v	259
		<	^	>		
		181	594	188		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		2805	1630		
		v	^		
526	<	IN =	6006	<	603
710	>	OUT =	6006	>	155
		v	^		
		3695	1888		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		18	23		
		v	^		
8	<	IN =	59	<	4
8	>	OUT =	59	>	3
		v	^		
		25	29		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		1072	627		
		v	^		
203	<	IN =	2302	<	230
272	>	OUT =	2302	>	60
		v	^		
		1412	727		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		2242	760		
		v	^		
894	<	IN =	6028	<	1738
720	>	OUT =	6029	>	655
		v	^		
		3720	1328		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		11	12		
		v	^		
10	<	IN =	51	<	10
9	>	OUT =	51	>	11
		v	^		
		18	21		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

		856	293		
		v	^		
343	<	IN =	2308	<	664
277	>	OUT =	2308	>	253
		v	^		
		1420	512		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		-216	-334		
		v	^		
141	<			<	433
4	>			>	193
		v	^		
		7	-215		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		100	70		
		v	^		
140	<	IN =	590	<	430
60	>	OUT =	410	>	190
		v	^		
		10	0		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		70	50		
		v	^		
90	<			<	280
40	>			>	120
		v	^		
		10	0		

NEW PROJECTED VOLUMES (PCEs): 2040

		1040	730		
		v	^		
430	<			<	720
640	>			>	550
		v	^		
		1530	960		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019

		21	656	103		
		<	v	>		
98	^				^	93
161	>				<	129
228	v				v	248
		<	^	>		
		180	1009	150		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019

		780	1200		
		v	^		
330	<	IN =	3076	<	470
487	>	OUT =	3076	>	414
		v	^		
		1132	1339		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

		0	0	0		
		<	v	>		
0	^				^	0
0	>				<	0
0	v				v	0
		<	^	>		
		0	0	0		

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019

		21	656	103		
		<	v	>		
98	^				^	93
161	>				<	129
228	v				v	248
		<	^	>		
		180	1009	150		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008

		2839	4027		
		v	^		
382	<	IN =	8472	<	392
342	>	OUT =	8472	>	848
		v	^		
		3215	4899		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008

		28	19		
		v	^		
4	<	IN =	54	<	2
2	>	OUT =	54	>	2
		v	^		
		29	22		

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		802	1132		
		v	^		
108	<	IN =	2386	<	110
96	>	OUT =	2386	>	238
		v	^		
		907	1377		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040

		2234	3877		
		v	^		
1211	<	IN =	12137	<	1809
1725	>	OUT =	12136	>	3603
		v	^		
		3445	6369		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040

		17	18		
		v	^		
14	<	IN =	80	<	14
14	>	OUT =	77	>	20
		v	^		
		25	35		

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

		630	1090		
		v	^		
343	<	IN =	3418	<	510
487	>	OUT =	3417	>	1014
		v	^		
		971	1792		

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00

		-172	-42		
		v	^		
235	<			<	400
390	>			>	776
		v	^		
		63	415		

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %

		80	120		
		v	^		
230	<	IN =	1280	<	400
390	>	OUT =	1190	>	780
		v	^		
		60	410		

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS

		50	80		
		v	^		
150	<			<	260
260	>			>	510
		v	^		
		40	270		

NEW PROJECTED VOLUMES (PCEs): 2040

		830	1280		
		v	^		
480	<			<	730
750	>			>	920
		v	^		
		1170	1610		

Palm Drive (NS) / Two Bunch Palms Trail (EW) - #17

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**181**	SOUTH LEG		NORTH	LEFT	**180**	SOUTH LEG	
BOUND	THRU	**594**	IN ...	**960**	BOUND	THRU	**1,009**	IN ...	**1,610**
	RIGHT	**188**	OUT ...	**1,530**		RIGHT	**150**	OUT ...	**1,170**
SOUTH	LEFT	**64**	NORTH LEG		SOUTH	LEFT	**103**	NORTH LEG	
BOUND	THRU	**885**	IN ...	**1,040**	BOUND	THRU	**656**	IN ...	**830**
	RIGHT	**24**	OUT ...	**730**		RIGHT	**21**	OUT ...	**1,280**
EAST	LEFT	**40**	WEST LEG		EAST	LEFT	**98**	WEST LEG	
BOUND	THRU	**182**	IN ...	**640**	BOUND	THRU	**161**	IN ...	**750**
	RIGHT	**373**	OUT ...	**430**		RIGHT	**228**	OUT ...	**480**
WEST	LEFT	**259**	EAST LEG		WEST	LEFT	**248**	EAST LEG	
BOUND	THRU	**139**	IN ...	**720**	BOUND	THRU	**129**	IN ...	**730**
	RIGHT	**45**	OUT ...	**550**		RIGHT	**93**	OUT ...	**920**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**181**	**199**	NORTH LEG	NORTH	LEFT	**180**	**223**	NORTH LEG
BOUND	THRU	**594**	**653**	RATIO **10.0%**	BOUND	THRU	**1,009**	**1,110**	RATIO **12.2%**
	RIGHT	**188**	**207**	ADT 19,000		RIGHT	**150**	**327**	ADT 19,000
SOUTH	LEFT	**64**	**103**	SOUTH LEG	SOUTH	LEFT	**103**	**208**	SOUTH LEG
BOUND	THRU	**885**	**974**	RATIO **13.0%**	BOUND	THRU	**656**	**722**	RATIO **13.9%**
	RIGHT	**24**	**31**	ADT 21,500		RIGHT	**21**	**24**	ADT 21,500
EAST	LEFT	**40**	**52**	EAST LEG	EAST	LEFT	**98**	**110**	EAST LEG
BOUND	THRU	**182**	**252**	RATIO **10.9%**	BOUND	THRU	**161**	**386**	RATIO **14.2%**
	RIGHT	**373**	**410**	ADT 11,500		RIGHT	**228**	**251**	ADT 11,500
WEST	LEFT	**259**	**351**	WEST LEG	WEST	LEFT	**248**	**346**	WEST LEG
BOUND	THRU	**139**	**249**	RATIO **16.1%**	BOUND	THRU	**129**	**233**	RATIO **16.6%**
	RIGHT	**45**	**95**	ADT 7,400		RIGHT	**93**	**138**	ADT 7,400

Palm Drive (NS) / Dillon Road (EW) - #18

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
82 1286 41
< v >
36 ^ ^ 56
64 > < 212
225 v v 309
< ^ >
109 488 65

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
1409 580
v ^
403 < IN = 2973 < 577
325 > OUT = 2973 > 170
v ^
1820 662

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
82 1286 41
< v >
36 ^ ^ 56
64 > < 212
225 v v 309
< ^ >
109 488 65

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
3130 1353
v ^
345 < IN = 5272 < 528
317 > OUT = 5272 > 458
v ^
3116 1297

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
21 23
v ^
14 < IN = 69 < 13
14 > OUT = 70 > 14
v ^
19 21

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
1196 522
v ^
136 < IN = 2026 < 205
125 > OUT = 2027 > 179
v ^
1190 500

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
6174 1853
v ^
469 < IN = 9567 < 674
655 > OUT = 9566 > 623
v ^
6621 2064

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
26 42
v ^
24 < IN = 116 < 25
32 > OUT = 118 > 22
v ^
30 33

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
2355 718
v ^
186 < IN = 3674 < 264
260 > OUT = 3674 > 244
v ^
2526 795

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
1158 196
v ^
50 < < 59
134 > > 65
v ^
1336 295

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
1160 200
v ^
50 < IN = 1650 < 60
130 > OUT = 1660 > 70
v ^
1340 300

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
760 130
v ^
30 < < 40
90 > > 50
v ^
880 200

NEW PROJECTED VOLUMES (PCEs): 2040
2170 710
v ^
430 < < 620
420 > > 220
v ^
2700 860

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
82 695 73
< v >
129 ^ ^ 118
146 > < 103
110 v v 129
< ^ >
144 1239 199

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
850 1486
v ^
329 < IN = 3167 < 350
385 > OUT = 3167 > 418
v ^
934 1582

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
82 695 73
< v >
129 ^ ^ 118
146 > < 103
110 v v 129
< ^ >
144 1239 199

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
4211 5732
v ^
571 < IN = 11315 < 676
609 > OUT = 11315 > 961
v ^
4051 5819

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
35 22
v ^
21 < IN = 95 < 19
21 > OUT = 95 > 20
v ^
32 20

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
1188 1610
v ^
165 < IN = 3192 < 194
176 > OUT = 3192 > 274
v ^
1142 1634

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
5470 8616
v ^
4203 < IN = 22749 < 3211
2898 > OUT = 22749 > 4377
v ^
5553 11170

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
49 42
v ^
68 < IN = 197 < 54
28 > OUT = 194 > 35
v ^
49 66

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
1544 2423
v ^
1194 < IN = 6419 < 913
818 > OUT = 6418 > 1234
v ^
1567 3144

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00
356 813
v ^
1029 < < 719
643 > > 960
v ^
425 1510

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
360 810
v ^
1030 < IN = 3230 < 720
640 > OUT = 3220 > 960
v ^
420 1510

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
240 530
v ^
680 < < 470
420 > > 630
v ^
280 990

NEW PROJECTED VOLUMES (PCEs): 2040
1090 2020
v ^
1010 < < 820
810 > > 1050
v ^
1210 2570

Palm Drive (NS) / Dillon Road (EW) - #18

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**109**	SOUTH LEG		NORTH	LEFT	**144**	SOUTH LEG	
BOUND	THRU	**488**	IN ...	**860**	BOUND	THRU	**1,239**	IN ...	**2,570**
	RIGHT	**65**	OUT ...	**2,700**		RIGHT	**199**	OUT ...	**1,210**
SOUTH	LEFT	**41**	NORTH LEG		SOUTH	LEFT	**73**	NORTH LEG	
BOUND	THRU	**1,286**	IN ...	**2,170**	BOUND	THRU	**695**	IN ...	**1,090**
	RIGHT	**82**	OUT ...	**710**		RIGHT	**82**	OUT ...	**2,020**
EAST	LEFT	**36**	WEST LEG		EAST	LEFT	**129**	WEST LEG	
BOUND	THRU	**64**	IN ...	**420**	BOUND	THRU	**146**	IN ...	**810**
	RIGHT	**225**	OUT ...	**430**		RIGHT	**110**	OUT ...	**1,010**
WEST	LEFT	**309**	EAST LEG		WEST	LEFT	**129**	EAST LEG	
BOUND	THRU	**212**	IN ...	**620**	BOUND	THRU	**103**	IN ...	**820**
	RIGHT	**56**	OUT ...	**220**		RIGHT	**118**	OUT ...	**1,050**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**109**	**139**	NORTH LEG		NORTH	LEFT	**144**	**440**	NORTH LEG	
BOUND	THRU	**488**	**621**	RATIO	**10.4%**	BOUND	THRU	**1,239**	**1,633**	RATIO	**11.1%**
	RIGHT	**65**	**92**	ADT	27,900		RIGHT	**199**	**497**	ADT	27,900
SOUTH	LEFT	**41**	**54**	SOUTH LEG		SOUTH	LEFT	**73**	**133**	SOUTH LEG	
BOUND	THRU	**1,286**	**2,018**	RATIO	**10.4%**	BOUND	THRU	**695**	**774**	RATIO	**11.1%**
	RIGHT	**82**	**97**	ADT	34,000		RIGHT	**82**	**183**	ADT	34,000
EAST	LEFT	**36**	**40**	EAST LEG		EAST	LEFT	**129**	**196**	EAST LEG	
BOUND	THRU	**64**	**74**	RATIO	**5.7%**	BOUND	THRU	**146**	**420**	RATIO	**12.0%**
	RIGHT	**225**	**308**	ADT	15,600		RIGHT	**110**	**194**	ADT	15,600
WEST	LEFT	**309**	**373**	WEST LEG		WEST	LEFT	**129**	**242**	WEST LEG	
BOUND	THRU	**212**	**233**	RATIO	**6.2%**	BOUND	THRU	**103**	**387**	RATIO	**12.6%**
	RIGHT	**56**	**62**	ADT	14,400		RIGHT	**118**	**191**	ADT	14,400

Palm Drive (NS) / 20th Avenue (EW) - #19

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019 1 1818 5	2019 5 889 14
< v >	< v >
2 ^ ^ 2	2 ^ ^ 10
1 > < 1	1 > < 1
1 v v 75	1 v v 24
< ^ >	< ^ >
1 658 16	4 1570 74
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019 1824 662	2019 908 1582
v ^	v ^
3 < IN = 2581 < 78	10 < IN = 2595 < 35
4 > OUT = 2581 > 22	4 > OUT = 2595 > 89
v ^	v ^
1894 675	914 1648
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
0 > < 0	0 > < 0
0 v v 0	0 v v 0
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0	2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019 1 1818 5	2019 5 889 14
< v >	< v >
2 ^ ^ 2	2 ^ ^ 10
1 > < 1	1 > < 1
1 v v 75	1 v v 24
< ^ >	< ^ >
1 658 16	4 1570 74
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008 3171 1353	2008 4164 5903
v ^	v ^
141 < IN = 4825 < 179	166 < IN = 11150 < 301
85 > OUT = 4825 > 119	583 > OUT = 11150 > 789
v ^	v ^
3212 1390	4292 6102
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008 19 22	2008 33 21
v ^	v ^
3 < IN = 49 < 4	5 < IN = 68 < 6
3 > OUT = 49 > 4	7 > OUT = 70 > 9
v ^	v ^
20 23	35 22
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1211 521	PHF FOR CARS: 0.28 1174 1658
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
55 < IN = 1850 < 69	48 < IN = 3139 < 86
33 > OUT = 1850 > 47	165 > OUT = 3140 > 223
v ^	v ^
1227 536	1211 1714
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040 7017 1985	2040 5860 12381
v ^	v ^
942 < IN = 11374 < 1425	1401 < IN = 23091 < 1365
766 > OUT = 11374 > 659	1084 > OUT = 23092 > 2952
v ^	v ^
7788 2166	6358 14782
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040 35 37	2040 49 42
v ^	v ^
23 < IN = 120 < 21	68 < IN = 197 < 54
23 > OUT = 121 > 22	28 > OUT = 194 > 35
v ^	v ^
39 41	49 66
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 2678 767	PHF FOR CARS: 0.28 1653 3477
PHF FOR TRUCKS: 0.333 v ^	PHF FOR TRUCKS: 0.25 v ^
366 < IN = 4362 < 548	409 < IN = 6515 < 396
299 > OUT = 4362 > 258	311 > OUT = 6514 > 835
v ^	v ^
2972 837	1792 4155
RAW GROWTH (PCEs): 2008 TO 2040	RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 1467 245	CONVERSION OF TRUCKS TO: 2040 479 1819
FACTOR = 1.00 v ^	FACTOR = 1.00 v ^
311 < < 479	362 < < 310
265 > > 211	146 > > 612
v ^	v ^
1745 301	582 2441
ADJUSTED GROWTH (PCEs): 2008 TO 2040	ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 1470 250	10 MINIMUM GROWTH % 480 1820
v ^	v ^
310 < IN = 2520 < 480	360 < IN = 3380 < 310
270 > OUT = 2520 > 210	150 > OUT = 3370 > 610
v ^	v ^
1750 300	580 2440
PRORATED GROWTH (PCEs): 2019 TO 2040	PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 960 160	21 YEARS 320 1190
v ^	v ^
200 < < 320	240 < < 200
180 > > 140	100 > > 400
v ^	v ^
1150 200	380 1600
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
2780 820	1230 2770
v ^	v ^
200 < < 400	250 < < 240
180 > > 160	100 > > 490
v ^	v ^
3040 880	1290 3250

Palm Drive (NS) / 20th Avenue (EW) - #19

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**4**	SOUTH LEG	
BOUND	THRU	**658**	IN ...	**880**	BOUND	THRU	**1,570**	IN ...	**3,250**
	RIGHT	**16**	OUT ...	**3,040**		RIGHT	**74**	OUT ...	**1,290**
SOUTH	LEFT	**5**	NORTH LEG		SOUTH	LEFT	**14**	NORTH LEG	
BOUND	THRU	**1,818**	IN ...	**2,780**	BOUND	THRU	**889**	IN ...	**1,230**
	RIGHT	**1**	OUT ...	**820**		RIGHT	**5**	OUT ...	**2,770**
EAST	LEFT	**2**	WEST LEG		EAST	LEFT	**2**	WEST LEG	
BOUND	THRU	**1**	IN ...	**180**	BOUND	THRU	**1**	IN ...	**100**
	RIGHT	**1**	OUT ...	**200**		RIGHT	**1**	OUT ...	**250**
WEST	LEFT	**75**	EAST LEG		WEST	LEFT	**24**	EAST LEG	
BOUND	THRU	**1**	IN ...	**400**	BOUND	THRU	**1**	IN ...	**240**
	RIGHT	**2**	OUT ...	**160**		RIGHT	**10**	OUT ...	**490**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**1**	**46**	NORTH LEG	NORTH	LEFT	**4**	**111**	NORTH LEG
BOUND	THRU	**658**	**759**	RATIO **9.9%**	BOUND	THRU	**1,570**	**2,699**	RATIO **11.1%**
	RIGHT	**16**	**57**	ADT 36,200		RIGHT	**74**	**402**	ADT 36,200
SOUTH	LEFT	**5**	**17**	SOUTH LEG	SOUTH	LEFT	**14**	**40**	SOUTH LEG
BOUND	THRU	**1,818**	**2,720**	RATIO **14.7%**	BOUND	THRU	**889**	**1,133**	RATIO **16.9%**
	RIGHT	**1**	**44**	ADT 26,600		RIGHT	**5**	**74**	ADT 26,600
EAST	LEFT	**2**	**55**	EAST LEG	EAST	LEFT	**2**	**30**	EAST LEG
BOUND	THRU	**1**	**85**	RATIO **7.6%**	BOUND	THRU	**1**	**48**	RATIO **9.9%**
	RIGHT	**1**	**37**	ADT 7,400		RIGHT	**1**	**21**	ADT 7,400
WEST	LEFT	**75**	**283**	WEST LEG	WEST	LEFT	**24**	**136**	WEST LEG
BOUND	THRU	**1**	**111**	RATIO **1.5%**	BOUND	THRU	**1**	**65**	RATIO **1.4%**
	RIGHT	**2**	**6**	ADT 24,900		RIGHT	**10**	**41**	ADT 24,900

Palm Drive (NS) / Varner Road (EW) - #20

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 1 1859 35 < v > 1 ^ ^ 15 1 > < 1 1 v v 55 < ^ > 1 663 27	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 1 894 20 < v > 1 ^ ^ 29 1 > < 1 1 v v 35 < ^ > 1 1618 36
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 1895 679 v ^ 3 < IN = 2660 < 71 3 > OUT = 2660 > 63 v ^ 1915 691	EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 915 1648 v ^ 3 < IN = 2638 < 65 3 > OUT = 2638 > 57 v ^ 930 1655
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 0 0 0	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ ^ 0 0 > < 0 0 v v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 1 1859 35 < v > 1 ^ ^ 15 1 > < 1 1 v v 55 < ^ > 1 663 27	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 1 894 20 < v > 1 ^ ^ 29 1 > < 1 1 v v 35 < ^ > 1 1618 36
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 3245 1412 v ^ 0 < IN = 4660 < 20 0 > OUT = 4660 > 375 v ^ 2873 1395	EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 4344 6159 v ^ 0 < IN = 10505 < 1039 0 > OUT = 10505 > 316 v ^ 4030 5122
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 20 23 v ^ 0 < IN = 43 < 0 0 > OUT = 43 > 2 v ^ 18 23	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 35 22 v ^ 0 < IN = 58 < 3 0 > OUT = 57 > 2 v ^ 33 20
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 1240 544 PHF FOR TRUCKS: 0.333 v ^ 0 < IN = 1785 < 8 0 > OUT = 1785 > 143 v ^ 1098 538	EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 1225 1730 PHF FOR TRUCKS: 0.25 v ^ 0 < IN = 2956 < 292 0 > OUT = 2956 > 89 v ^ 1137 1439
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 8277 2330 v ^ 912 < IN = 14102 < 956 2387 > OUT = 14103 > 2630 v ^ 8231 2482	FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 6734 15461 v ^ 4139 < IN = 28763 < 6424 2182 > OUT = 28762 > 2502 v ^ 6660 13423
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 42 45 v ^ 45 < IN = 176 < 28 38 > OUT = 177 > 30 v ^ 57 68	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 64 111 v ^ 57 < IN = 309 < 46 64 > OUT = 308 > 54 v ^ 86 135
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 3159 900 PHF FOR TRUCKS: 0.333 v ^ 362 < IN = 5417 < 373 920 > OUT = 5418 > 1009 v ^ 3147 966	FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 1902 4357 PHF FOR TRUCKS: 0.25 v ^ 1173 < IN = 8131 < 1810 627 > OUT = 8130 > 714 v ^ 1886 3792
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 1919 356 FACTOR = 1.00 v ^ 362 < < 365 920 > > 866 v ^ 2049 428	RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 676 2627 FACTOR = 1.00 v ^ 1173 < < 1519 627 > > 625 v ^ 750 2353
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 1920 360 v ^ 360 < IN = 3640 < 370 920 > OUT = 3640 > 870 v ^ 2050 430	ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % 680 2630 v ^ 1170 < IN = 5180 < 1520 630 > OUT = 5180 > 630 v ^ 750 2350
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 1260 240 v ^ 240 < < 240 600 > > 570 v ^ 1350 280	PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS 450 1730 v ^ 770 < < 1000 410 > > 410 v ^ 490 1540
NEW PROJECTED VOLUMES (PCEs): 2040 3160 920 v ^ 240 < < 310 600 > > 630 v ^ 3270 970	NEW PROJECTED VOLUMES (PCEs): 2040 1370 3380 v ^ 770 < < 1070 410 > > 470 v ^ 1420 3200

Palm Drive (NS) / Varner Road (EW) - #20

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**1**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**663**	IN ...	**970**	BOUND	THRU	**1,618**	IN ...	**3,200**
	RIGHT	**27**	OUT ...	**3,270**		RIGHT	**36**	OUT ...	**1,420**
SOUTH	LEFT	**35**	NORTH LEG		SOUTH	LEFT	**20**	NORTH LEG	
BOUND	THRU	**1,859**	IN ...	**3,160**	BOUND	THRU	**894**	IN ...	**1,370**
	RIGHT	**1**	OUT ...	**920**		RIGHT	**1**	OUT ...	**3,380**
EAST	LEFT	**1**	WEST LEG		EAST	LEFT	**1**	WEST LEG	
BOUND	THRU	**1**	IN ...	**600**	BOUND	THRU	**1**	IN ...	**410**
	RIGHT	**1**	OUT ...	**240**		RIGHT	**1**	OUT ...	**770**
WEST	LEFT	**55**	EAST LEG		WEST	LEFT	**35**	EAST LEG	
BOUND	THRU	**1**	IN ...	**310**	BOUND	THRU	**1**	IN ...	**1,070**
	RIGHT	**15**	OUT ...	**630**		RIGHT	**29**	OUT ...	**470**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**1**	**63**	NORTH LEG		NORTH	LEFT	**1**	**98**	NORTH LEG	
BOUND	THRU	**663**	**788**	RATIO	**14.2%**	BOUND	THRU	**1,618**	**2,970**	RATIO	**16.4%**
	RIGHT	**27**	**118**	ADT	28,800		RIGHT	**36**	**141**	ADT	28,800
SOUTH	LEFT	**35**	**148**	SOUTH LEG		SOUTH	LEFT	**20**	**94**	SOUTH LEG	
BOUND	THRU	**1,859**	**2,969**	RATIO	**14.8%**	BOUND	THRU	**894**	**1,144**	RATIO	**16.1%**
	RIGHT	**1**	**62**	ADT	28,700		RIGHT	**1**	**117**	ADT	28,700
EAST	LEFT	**1**	**100**	EAST LEG		EAST	LEFT	**1**	**110**	EAST LEG	
BOUND	THRU	**1**	**364**	RATIO	**7.2%**	BOUND	THRU	**1**	**235**	RATIO	**11.7%**
	RIGHT	**1**	**138**	ADT	13,100		RIGHT	**1**	**64**	ADT	13,100
WEST	LEFT	**55**	**164**	WEST LEG		WEST	LEFT	**35**	**212**	WEST LEG	
BOUND	THRU	**1**	**115**	RATIO	**7.1%**	BOUND	THRU	**1**	**554**	RATIO	**9.9%**
	RIGHT	**15**	**32**	ADT	11,900		RIGHT	**29**	**300**	ADT	11,900

Mountain View Road (NS) / Hacienda Avenue (EW) - #21

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
7 55 53
< v >
6 ^ ^ 37
232 > < 263
119 v v 81
< ^ >
94 56 34

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
115 99
v ^
364 < IN = 1037 < 381
357 > OUT = 1037 > 319
v ^
255 184

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2.0 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
7 55 53
< v >
6 ^ ^ 37
232 > < 263
119 v v 81
< ^ >
94 56 34

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
54 8
v ^
487 < IN = 1346 < 378
798 > OUT = 1347 > 405
v ^
447 116

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
0 0
v ^
6 < IN = 12 < 5
6 > OUT = 12 > 5
v ^
1 1

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
21 3
v ^
187 < IN = 515 < 145
305 > OUT = 516 > 156
v ^
170 44

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
1022 602
v ^
373 < IN = 2668 < 706
672 > OUT = 2668 > 1021
v ^
672 268

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
6 6
v ^
5 < IN = 25 < 10
5 > OUT = 24 > 10
v ^
3 4

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333
390 231
v ^
143 < IN = 1022 < 272
257 > OUT = 1022 > 391
v ^
256 103

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
370 228
FACTOR = 1.00
v ^
-44 < < 126
-48 > > 236
v ^
86 59

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
370 230
v ^
40 < IN = 600 < 130
40 > OUT = 600 > 240
v ^
90 60

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
240 150
v ^
30 < < 90
30 > > 160
v ^
60 40

NEW PROJECTED VOLUMES (PCEs): 2040
360 250
v ^
390 < < 470
390 > > 480
v ^
320 220

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
13 34 24
< v >
9 ^ ^ 39
213 > < 192
121 v v 33
< ^ >
162 89 54

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
71 137
v ^
367 < IN = 983 < 264
343 > OUT = 983 > 291
v ^
188 305

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE:
< ^ >
2: 1.5 3: 2 4+: 3.0
0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
13 34 24
< v >
9 ^ ^ 39
213 > < 192
121 v v 33
< ^ >
162 89 54

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
248 500
v ^
1475 < IN = 3338 < 1065
1121 > OUT = 3338 > 812
v ^
551 904

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
3 5
v ^
8 < IN = 23 < 10
8 > OUT = 23 > 8
v ^
2 2

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
70 141
v ^
415 < IN = 940 < 301
316 > OUT = 940 > 229
v ^
155 254

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
1360 2856
v ^
2091 < IN = 7449 < 3377
1155 > OUT = 7448 > 1759
v ^
742 1557

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
17 27
v ^
12 < IN = 62 < 33
7 > OUT = 64 > 20
v ^
5 5

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25
385 806
v ^
588 < IN = 2101 < 954
325 > OUT = 2101 > 498
v ^
209 437

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040
315 665
FACTOR = 1.00
v ^
173 < < 653
9 > > 268
v ^
54 184

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH %
310 670
v ^
170 < IN = 1170 < 650
30 > OUT = 1160 > 270
v ^
50 180

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS
200 440
v ^
110 < < 430
20 > > 180
v ^
30 120

NEW PROJECTED VOLUMES (PCEs): 2040
270 580
v ^
480 < < 690
360 > > 470
v ^
220 430

Mountain View Road (NS) / Hacienda Avenue (EW) - #21

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**94**	SOUTH LEG		NORTH	LEFT	**162**	SOUTH LEG	
BOUND	THRU	**56**	IN ...	**220**	BOUND	THRU	**89**	IN ...	**430**
	RIGHT	**34**	OUT ...	**320**		RIGHT	**54**	OUT ...	**220**
SOUTH	LEFT	**53**	NORTH LEG		SOUTH	LEFT	**24**	NORTH LEG	
BOUND	THRU	**55**	IN ...	**360**	BOUND	THRU	**34**	IN ...	**270**
	RIGHT	**7**	OUT ...	**250**		RIGHT	**13**	OUT ...	**580**
EAST	LEFT	**6**	WEST LEG		EAST	LEFT	**9**	WEST LEG	
BOUND	THRU	**232**	IN ...	**390**	BOUND	THRU	**213**	IN ...	**360**
	RIGHT	**119**	OUT ...	**390**		RIGHT	**121**	OUT ...	**480**
WEST	LEFT	**81**	EAST LEG		WEST	LEFT	**33**	EAST LEG	
BOUND	THRU	**263**	IN ...	**470**	BOUND	THRU	**192**	IN ...	**690**
	RIGHT	**37**	OUT ...	**480**		RIGHT	**39**	OUT ...	**470**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**94**	**103**	NORTH LEG	NORTH	LEFT	**162**	**178**	NORTH LEG
BOUND	THRU	**56**	**120**	RATIO **4.5%**	BOUND	THRU	**89**	**255**	RATIO **6.3%**
	RIGHT	**34**	**37**	ADT 13,400		RIGHT	**54**	**69**	ADT 13,400
SOUTH	LEFT	**53**	**187**	SOUTH LEG	SOUTH	LEFT	**24**	**138**	SOUTH LEG
BOUND	THRU	**55**	**147**	RATIO **8.6%**	BOUND	THRU	**34**	**94**	RATIO **10.7%**
	RIGHT	**7**	**24**	ADT 7,300		RIGHT	**13**	**38**	ADT 7,300
EAST	LEFT	**6**	**19**	EAST LEG	EAST	LEFT	**9**	**25**	EAST LEG
BOUND	THRU	**232**	**266**	RATIO **18.5%**	BOUND	THRU	**213**	**263**	RATIO **21.9%**
	RIGHT	**119**	**131**	ADT 5,300		RIGHT	**121**	**133**	ADT 5,300
WEST	LEFT	**81**	**89**	WEST LEG	WEST	LEFT	**33**	**54**	WEST LEG
BOUND	THRU	**263**	**292**	RATIO **208.8%**	BOUND	THRU	**192**	**336**	RATIO **243.3%**
	RIGHT	**37**	**112**	ADT 400		RIGHT	**39**	**300**	ADT 400

Mountain View Road (NS) / Dillon Road (EW) - #22

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			103	350	4		
			<	v	>		
	28	^				^	14
	75	>				<	189
	119	v				v	192
			<	^	>		
			32	90	48		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019			457	132		
			v	^		
	324	<	IN =	1244	<	395
	222	>	OUT =	1244	>	127
			v	^		
			661	170		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			103	350	4		
			<	v	>		
	28	^				^	14
	75	>				<	189
	119	v				v	192
			<	^	>		
			32	90	48		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008			916	340		
			v	^		
	346	<	IN =	2269	<	541
	406	>	OUT =	2270	>	490
			v	^		
			1094	406		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008			3	5		
			v	^		
	10	<	IN =	32	<	12
	12	>	OUT =	31	>	12
			v	^		
			4	5		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38			349	131		
PHF FOR TRUCKS: 0.333			v	^		
	135	<	IN =	873	<	210
	158	>	OUT =	873	>	190
			v	^		
			417	156		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040			2142	638		
			v	^		
	1651	<	IN =	5656	<	1379
	1541	>	OUT =	5657	>	825
			v	^		
			2543	594		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040			9	11		
			v	^		
	16	<	IN =	46	<	12
	16	>	OUT =	45	>	10
			v	^		
			8	9		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38			817	246		
PHF FOR TRUCKS: 0.333			v	^		
	633	<	IN =	2165	<	528
	591	>	OUT =	2165	>	317
			v	^		
			969	229		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040			468	115		
FACTOR = 1.00			v	^		
	498	<			<	318
	433	>			>	127
			v	^		
			552	73		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %			470	120		
			v	^		
	500	<	IN =	1290	<	320
	430	>	OUT =	1300	>	130
			v	^		
			550	70		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS			310	80		
			v	^		
	330	<			<	210
	280	>			>	90
			v	^		
			360	50		

NEW PROJECTED VOLUMES (PCEs): 2040

			770	210		
			v	^		
	650	<			<	610
	500	>			>	220
			v	^		
			1020	220		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2019			48	150	18		
			<	v	>		
	75	^				^	11
	181	>				<	144
	59	v				v	88
			<	^	>		
			118	260	210		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2019			216	346		
			v	^		
	310	<	IN =	1362	<	243
	315	>	OUT =	1362	>	409
			v	^		
			297	588		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0		
			<	v	>		
	0	^				^	0
	0	>				<	0
	0	v				v	0
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			0	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2019			48	150	18		
			<	v	>		
	75	^				^	11
	181	>				<	144
	59	v				v	88
			<	^	>		
			118	260	210		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2008			1146	1971		
			v	^		
	799	<	IN =	5105	<	1125
	843	>	OUT =	5105	>	897
			v	^		
			1438	1991		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2008			4	3		
			v	^		
	17	<	IN =	43	<	20
	16	>	OUT =	43	>	17
			v	^		
			6	3		

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28			322	553		
PHF FOR TRUCKS: 0.25			v	^		
	228	<	IN =	1440	<	320
	240	>	OUT =	1440	>	255
			v	^		
			404	558		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040			17	13		
			v	^		
	41	<	IN =	89	<	33
	25	>	OUT =	88	>	20
			v	^		
			14	14		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040			17	13		
			v	^		
	41	<	IN =	88	<	33
	25	>	OUT =	88	>	20
			v	^		
			14	13		

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28			9	7		
PHF FOR TRUCKS: 0.25			v	^		
	22	<	IN =	47	<	17
	13	>	OUT =	47	>	11
			v	^		
			7	7		

RAW GROWTH (PCEs): 2008 TO 2040

CONVERSION OF TRUCKS TO: 2040			-313	-546		
FACTOR = 1.00			v	^		
	-206	<			<	-303
	-227	>			>	-245
			v	^		
			-397	-551		

ADJUSTED GROWTH (PCEs): 2008 TO 2040

10 MINIMUM GROWTH %			20	30		
			v	^		
	30	<	IN =	70	<	20
	30	>	OUT =	100	>	40
			v	^		
			0	0		

PRORATED GROWTH (PCEs): 2019 TO 2040

21 YEARS			10	20		
			v	^		
	20	<			<	10
	20	>			>	30
			v	^		
			0	0		

NEW PROJECTED VOLUMES (PCEs): 2040

			230	370		
			v	^		
	330	<			<	250
	340	>			>	440
			v	^		
			300	590		

Mountain View Road (NS) / Dillon Road (EW) - #22

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**32**	SOUTH LEG		NORTH	LEFT	**118**	SOUTH LEG	
BOUND	THRU	**90**	IN ...	**220**	BOUND	THRU	**260**	IN ...	**590**
	RIGHT	**48**	OUT ...	**1,020**		RIGHT	**210**	OUT ...	**300**
SOUTH	LEFT	**4**	NORTH LEG		SOUTH	LEFT	**18**	NORTH LEG	
BOUND	THRU	**350**	IN ...	**770**	BOUND	THRU	**150**	IN ...	**230**
	RIGHT	**103**	OUT ...	**210**		RIGHT	**48**	OUT ...	**370**
EAST	LEFT	**28**	WEST LEG		EAST	LEFT	**75**	WEST LEG	
BOUND	THRU	**75**	IN ...	**500**	BOUND	THRU	**181**	IN ...	**340**
	RIGHT	**119**	OUT ...	**650**		RIGHT	**59**	OUT ...	**330**
WEST	LEFT	**192**	EAST LEG		WEST	LEFT	**88**	EAST LEG	
BOUND	THRU	**189**	IN ...	**610**	BOUND	THRU	**144**	IN ...	**250**
	RIGHT	**14**	OUT ...	**220**		RIGHT	**11**	OUT ...	**440**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**32**	**53**	NORTH LEG	NORTH	LEFT	**118**	**130**	NORTH LEG
BOUND	THRU	**90**	**116**	RATIO **8.4%**	BOUND	THRU	**260**	**286**	RATIO **5.4%**
	RIGHT	**48**	**53**	ADT 11,600		RIGHT	**210**	**231**	ADT 11,600
SOUTH	LEFT	**4**	**6**	SOUTH LEG	SOUTH	LEFT	**18**	**22**	SOUTH LEG
BOUND	THRU	**350**	**524**	RATIO **12.5%**	BOUND	THRU	**150**	**165**	RATIO **9.8%**
	RIGHT	**103**	**240**	ADT 9,900		RIGHT	**48**	**56**	ADT 9,900
EAST	LEFT	**28**	**74**	EAST LEG	EAST	LEFT	**75**	**86**	EAST LEG
BOUND	THRU	**75**	**163**	RATIO **22.5%**	BOUND	THRU	**181**	**204**	RATIO **19.6%**
	RIGHT	**119**	**263**	ADT 3,700		RIGHT	**59**	**65**	ADT 3,700
WEST	LEFT	**192**	**233**	WEST LEG	WEST	LEFT	**88**	**97**	WEST LEG
BOUND	THRU	**189**	**357**	RATIO **13.9%**	BOUND	THRU	**144**	**158**	RATIO **8.4%**
	RIGHT	**14**	**20**	ADT 8,300		RIGHT	**11**	**13**	ADT 8,300

Mountain View Road (NS) / Varner Road (EW) - #23

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
57 0 690
< v >
11 ^ ^ 171
50 > < 17
0 v v 0
< ^ >
0 0 0

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
747 182
v ^
74 < IN = 996 < 188
61 > OUT = 996 > 740
v ^
0 0

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
57 0 690
< v >
11 ^ ^ 171
50 > < 17
0 v v 0
< ^ >
0 0 0

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1352 491
v ^
22 < IN = 2241 < 513
376 > OUT = 2241 > 1728
v ^
0 0

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
6 7
v ^
0 < IN = 15 < 7
2 > OUT = 15 > 8
v ^
0 0

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 516 189
PHF FOR TRUCKS: 0.333 v ^
8 < IN = 857 < 197
144 > OUT = 857 > 659
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
3795 1049
v ^
1081 < IN = 8162 < 1943
2294 > OUT = 8161 > 5389
v ^
642 130

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
14 17
v ^
26 < IN = 86 < 41
30 > OUT = 87 > 41
v ^
3 1

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38 1447 404
PHF FOR TRUCKS: 0.333 v ^
419 < IN = 3130 < 752
882 > OUT = 3130 > 2061
v ^
245 50

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 931 215
FACTOR = 1.00 v ^
411 < < 555
738 > > 1402
v ^
245 50

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 930 220
v ^
410 < IN = 2270 < 550
740 > OUT = 2270 > 1400
v ^
240 50

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 610 140
v ^
270 < < 360
490 > > 920
v ^
160 30

NEW PROJECTED VOLUMES (PCEs): 2040
1360 320
v ^
340 < < 550
550 > > 1660
v ^
160 30

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2019
26 0 275
< v >
24 ^ ^ 581
42 > < 61
0 v v 0
< ^ >
0 0 0

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2019
301 605
v ^
87 < IN = 1009 < 642
66 > OUT = 1009 > 317
v ^
0 0

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0
< v >
0 ^ ^ 0
0 > < 0
0 v v 0
PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2 4+: 3.0 0 0 0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2019
26 0 275
< v >
24 ^ ^ 581
42 > < 61
0 v v 0
< ^ >
0 0 0

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2008
1799 2728
v ^
1032 < IN = 5880 < 3759
322 > OUT = 5879 > 2119
v ^
0 0

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2008
9 6
v ^
3 < IN = 20 < 9
2 > OUT = 21 > 12
v ^
0 0

EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 506 765
PHF FOR TRUCKS: 0.25 v ^
290 < IN = 1651 < 1055
91 > OUT = 1651 > 596
v ^
0 0

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040
2854 6680
v ^
5774 < IN = 17798 < 9286
2595 > OUT = 17797 > 4996
v ^
347 3063

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040
24 22
v ^
43 < IN = 143 < 53
54 > OUT = 142 > 75
v ^
2 12

FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.28 805 1876
PHF FOR TRUCKS: 0.25 v ^
1627 < IN = 5019 < 2613
740 > OUT = 5019 > 1418
v ^
98 861

RAW GROWTH (PCEs): 2008 TO 2040
CONVERSION OF TRUCKS TO: 2040 299 1111
FACTOR = 1.00 v ^
1338 < < 1559
649 > > 821
v ^
98 861

ADJUSTED GROWTH (PCEs): 2008 TO 2040
10 MINIMUM GROWTH % 300 1110
v ^
1340 < IN = 3370 < 1560
650 > OUT = 3370 > 820
v ^
100 860

PRORATED GROWTH (PCEs): 2019 TO 2040
21 YEARS 200 730
v ^
880 < < 1020
430 > > 540
v ^
70 560

NEW PROJECTED VOLUMES (PCEs): 2040
500 1340
v ^
970 < < 1660
500 > > 860
v ^
70 560

Mountain View Road (NS) / Varner Road (EW) - #23

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**30**	BOUND	THRU	**0**	IN ...	**560**
	RIGHT	**0**	OUT ...	**160**		RIGHT	**0**	OUT ...	**70**
SOUTH	LEFT	**690**	NORTH LEG		SOUTH	LEFT	**275**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**1,360**	BOUND	THRU	**0**	IN ...	**500**
	RIGHT	**57**	OUT ...	**320**		RIGHT	**26**	OUT ...	**1,340**
EAST	LEFT	**11**	WEST LEG		EAST	LEFT	**24**	WEST LEG	
BOUND	THRU	**50**	IN ...	**550**	BOUND	THRU	**42**	IN ...	**500**
	RIGHT	**0**	OUT ...	**340**		RIGHT	**0**	OUT ...	**970**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**17**	IN ...	**550**	BOUND	THRU	**61**	IN ...	**1,660**
	RIGHT	**171**	OUT ...	**1,660**		RIGHT	**581**	OUT ...	**860**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)											
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**0**	**0**	NORTH LEG		NORTH	LEFT	**0**	**0**	NORTH LEG	
BOUND	THRU	**0**	**0**	RATIO	**10.6%**	BOUND	THRU	**0**	**0**	RATIO	**12.7%**
	RIGHT	**0**	**0**	ADT	15,200		RIGHT	**0**	**0**	ADT	15,200
SOUTH	LEFT	**690**	**1,158**	SOUTH LEG		SOUTH	LEFT	**275**	**426**	SOUTH LEG	
BOUND	THRU	**0**	**0**	RATIO	**-**	BOUND	THRU	**0**	**0**	RATIO	**-**
	RIGHT	**57**	**136**	ADT	4,700		RIGHT	**26**	**171**	ADT	4,700
EAST	LEFT	**11**	**23**	EAST LEG		EAST	LEFT	**24**	**162**	EAST LEG	
BOUND	THRU	**50**	**502**	RATIO	**5.8%**	BOUND	THRU	**42**	**434**	RATIO	**7.6%**
	RIGHT	**0**	**0**	ADT	37,200		RIGHT	**0**	**0**	ADT	37,200
WEST	LEFT	**0**	**0**	WEST LEG		WEST	LEFT	**0**	**0**	WEST LEG	
BOUND	THRU	**17**	**204**	RATIO	**2.5%**	BOUND	THRU	**61**	**799**	RATIO	**4.4%**
	RIGHT	**171**	**297**	ADT	35,300		RIGHT	**581**	**1,178**	ADT	35,300

Long Canyon Road (NS) / Dillon Road (EW) - #22

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 — 26 3 83 < v > 30 ^ … ^ 106 124 > … < 317 12 v … v 3 < ^ > 0 1 1	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2019 — 23 3 117 < v > 31 ^ … ^ 80 370 > … < 210 4 v … v 2 < ^ > 9 6 6
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 — 112 137 v ^ 343 < IN = 706 < 426 166 > OUT = 706 > 208 v ^ 18 2	EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2019 — 143 117 v ^ 242 < IN = 861 < 292 405 > OUT = 861 > 493 v ^ 9 21
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ … ^ 0 0 > … < 0 0 v … v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2.0 4+: 3.0 — 0 0 0	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs): 0 0 0 < v > 0 ^ … ^ 0 0 > … < 0 0 v … v 0 PCE FACTORS BY AXLE: < ^ > 2: 1.5 3: 2 4+: 3.0 — 0 0 0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 — 26 3 83 < v > 30 ^ … ^ 106 124 > … < 317 12 v … v 3 < ^ > 0 1 1	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs): 2019 — 23 3 117 < v > 31 ^ … ^ 80 370 > … < 210 4 v … v 2 < ^ > 9 6 6
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 — 326 171 v ^ 540 < IN = 1420 < 599 486 > OUT = 1419 > 685 v ^ 23 9	EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2008 — 425 1037 v ^ 1125 < IN = 3513 < 1998 896 > OUT = 3513 > 1316 v ^ 35 194
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 — 3 3 v ^ 12 < IN = 28 < 13 12 > OUT = 29 > 14 v ^ 0 0	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2008 — 5 8 v ^ 20 < IN = 48 < 26 16 > OUT = 49 > 20 v ^ 1 1
EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 — 125 66 PHF FOR TRUCKS: 0.333 — v ^ 209 < IN = 549 < 232 189 > OUT = 549 > 265 v ^ 9 3	EXISTING PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 — 120 292 PHF FOR TRUCKS: 0.25 — v ^ 320 < IN = 996 < 566 255 > OUT = 996 > 373 v ^ 10 55
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 — 206 93 v ^ 1076 < IN = 3407 < 2058 860 > OUT = 3407 > 1158 v ^ 1080 283	FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2040 — 169 422 v ^ 2176 < IN = 6615 < 2937 1772 > OUT = 6614 > 3378 v ^ 638 1737
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 — 1 1 v ^ 10 < IN = 28 < 12 10 > OUT = 28 > 14 v ^ 3 5	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs): 2040 — 2 3 v ^ 33 < IN = 65 < 37 18 > OUT = 65 > 24 v ^ 5 8
FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.38 — 79 36 PHF FOR TRUCKS: 0.333 — v ^ 412 < IN = 1304 < 786 330 > OUT = 1304 > 445 v ^ 411 109	FUTURE PEAK HOUR MODEL YEAR (PCEs): PHF FOR CARS: 0.28 — 48 119 PHF FOR TRUCKS: 0.25 — v ^ 618 < IN = 1868 < 832 501 > OUT = 1868 > 952 v ^ 180 488
RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 — -46 -30 FACTOR = 1.00 — v ^ 203 < … < 554 141 > … > 180 v ^ 403 106	RAW GROWTH (PCEs): 2008 TO 2040 CONVERSION OF TRUCKS TO: 2040 — -72 -173 FACTOR = 1.00 — v ^ 298 < … < 266 246 > … > 578 v ^ 170 434
ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % — 10 10 v ^ 200 < IN = 810 < 550 140 > OUT = 790 > 180 v ^ 400 110	ADJUSTED GROWTH (PCEs): 2008 TO 2040 10 MINIMUM GROWTH % — 10 10 v ^ 300 < IN = 960 < 270 250 > OUT = 1060 > 580 v ^ 170 430
PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS — 10 10 v ^ 130 < … < 360 90 > … > 120 v ^ 260 70	PRORATED GROWTH (PCEs): 2019 TO 2040 21 YEARS — 10 10 v ^ 200 < … < 180 160 > … > 380 v ^ 110 280
NEW PROJECTED VOLUMES (PCEs): 2040 120 150 v ^ 470 < … < 790 260 > … > 330 v ^ 280 70	NEW PROJECTED VOLUMES (PCEs): 2040 150 130 v ^ 440 < … < 470 570 > … > 870 v ^ 120 300

Long Canyon Road (NS) / Dillon Road (EW) - #22

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**9**	SOUTH LEG	
BOUND	THRU	**1**	IN ...	**70**	BOUND	THRU	**6**	IN ...	**300**
	RIGHT	**1**	OUT ...	**280**		RIGHT	**6**	OUT ...	**120**
SOUTH	LEFT	**83**	NORTH LEG		SOUTH	LEFT	**117**	NORTH LEG	
BOUND	THRU	**3**	IN ...	**120**	BOUND	THRU	**3**	IN ...	**150**
	RIGHT	**26**	OUT ...	**150**		RIGHT	**23**	OUT ...	**130**
EAST	LEFT	**30**	WEST LEG		EAST	LEFT	**31**	WEST LEG	
BOUND	THRU	**124**	IN ...	**260**	BOUND	THRU	**370**	IN ...	**570**
	RIGHT	**12**	OUT ...	**470**		RIGHT	**4**	OUT ...	**440**
WEST	LEFT	**3**	EAST LEG		WEST	LEFT	**2**	EAST LEG	
BOUND	THRU	**317**	IN ...	**790**	BOUND	THRU	**210**	IN ...	**470**
	RIGHT	**106**	OUT ...	**330**		RIGHT	**80**	OUT ...	**870**

YEAR 2040 TRAFFIC CONDITIONS (IN PCEs)									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**9**	**92**	NORTH LEG
BOUND	THRU	**1**	**9**	RATIO **-**	BOUND	THRU	**6**	**39**	RATIO **-**
	RIGHT	**1**	**64**	ADT 0		RIGHT	**6**	**184**	ADT 0
SOUTH	LEFT	**83**	**99**	SOUTH LEG	SOUTH	LEFT	**117**	**129**	SOUTH LEG
BOUND	THRU	**3**	**21**	RATIO **7.5%**	BOUND	THRU	**3**	**21**	RATIO **9.3%**
	RIGHT	**26**	**29**	ADT 4,700		RIGHT	**23**	**25**	ADT 4,700
EAST	LEFT	**30**	**33**	EAST LEG	EAST	LEFT	**31**	**34**	EAST LEG
BOUND	THRU	**124**	**167**	RATIO **10.1%**	BOUND	THRU	**370**	**557**	RATIO **12.5%**
	RIGHT	**12**	**94**	ADT 10,900		RIGHT	**4**	**38**	ADT 10,900
WEST	LEFT	**3**	**165**	WEST LEG	WEST	LEFT	**2**	**61**	WEST LEG
BOUND	THRU	**317**	**465**	RATIO **9.7%**	BOUND	THRU	**210**	**340**	RATIO **13.4%**
	RIGHT	**106**	**136**	ADT 8,100		RIGHT	**80**	**88**	ADT 8,100

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
SR-62 (NS) at Indian Canyon Dr (EW) - #1	North	19,252	15,000	47,272	34,300
	South	10,932	29,000	19,012	34,600
	East	8,320	39,200	28,261	52,900
	West	-	27,000	-	29,700
SR-62 SB (NS) at Pierson Blvd East (EW) - #2a	North	6,273	28,800	9,421	31,700
	South	9,136	28,800	16,033	33,500
	East	4,985	500	23,210	13,000
	West	4,263	-	24,534	13,900
SR-62 NB (NS) at Pierson Blvd West (EW) - #2b	North	4,659	28,800	9,591	32,200
	South	6,973	28,800	18,997	37,100
	East	4,263	500	24,534	14,400
	West	-	-	20,970	14,400
SR-62 (NS) at Dillon Rd (EW) - #3	North	16,109	-	35,029	13,000
	South	18,089	-	42,703	16,900
	East	3,111	38,800	12,861	45,500
	West	-	38,800	397	42,700
Indian Canyon Dr (NS) at Mission Lakes Blvd (EW) - #4	North	8,067	8,900	17,918	15,700
	South	13,862	200	18,500	3,400
	East	7,136	32,100	6,674	35,300
	West	-	39,200	2,783	43,100
Indian Canyon Dr (NS) at Pierson Blvd (EW) - #5	North	13,862	-	24,293	7,200
	South	13,690	-	32,226	12,700
	East	6,441	32,100	20,827	42,000
	West	4,836	32,100	18,404	41,400
Indian Canyon Dr (NS) at 14th Ave (EW) - #6	North	14,155	26,600	40,778	44,900
	South	14,155	26,600	39,900	44,300
	East	-	25,700	5,415	29,400
	West	-	24,000	3,630	26,500
Indian Canyon Dr (NS) at Dillon Rd (EW) - #7	North	14,751	28,000	40,162	45,500
	South	17,524	28,600	48,877	50,200
	East	6,207	12,300	24,041	24,600
	West	3,417	7,500	20,388	19,200
Indian Canyon Dr (NS) at 20th Ave (EW) - #8	North	20,284	25,000	58,388	51,200
	South	23,576	29,600	80,720	68,900
	East	2,239	26,900	12,748	34,100
	West	1,118	16,100	17,638	27,500
Little Morongo Rd (NS) at Mission Lakes Blvd (EW) - #9	North	4,721	22,900	5,871	25,200
	South	3,456	18,900	15,914	27,500
	East	1,058	1,200	10,718	7,800
	West	3,441	7,300	4,340	8,000

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
Little Morongo Rd (NS) at Pierson Blvd (EW) - #10	North	3,456	19,200	23,557	33,000
	South	2,218	-	18,076	10,900
	East	9,478	20,000	16,403	24,800
	West	7,920	32,000	16,002	37,600
Little Morongo Rd (NS) at Two Bunch Plams Trail (EW) - #11	North	2,344	12,600	16,817	22,600
	South	3,161	10,400	22,098	23,400
	East	1,122	24,900	6,724	28,800
	West	-	25,300	5,846	29,300
Little Mornogo Rd (NS) at Dillion Ave (EW) - #12	North	3,755	9,500	18,859	19,900
	South	1,879	10,000	18,008	21,100
	East	4,803	7,700	23,352	20,500
	West	6,013	7,500	24,271	20,100
Little Morongo Rd (NS) at 20th Ave (EW) - #13	North	1,063	11,300	10,621	17,900
	South	-	11,100	17,392	23,100
	East	1,206	2,300	8,464	7,300
	West	2,239	1,600	15,529	10,700
Palm Dr (NS) at Mission Lakes Blvd (EW) - #14	North	-	11,000	-	12,100
	South	3,073	12,100	3,659	13,300
	East	-	3,900	-	4,300
	West	3,029	3,500	3,607	3,900
Palm Dr (NS) at Pierson Blvd (EW) - #15	North	9,528	11,600	10,940	12,800
	South	16,838	14,300	10,214	15,700
	East	12,288	6,000	11,428	6,600
	West	14,711	4,400	15,412	4,900
Palm Dr (NS) at Hacienda Ave (EW) - #16	North	14,340	13,200	8,883	14,500
	South	19,166	17,400	12,671	19,100
	East	1,785	21,300	3,402	23,400
	West	6,577	18,700	7,297	20,600
Palm Dr (NS) at Two Bunch Palms Trail (EW) - #17	North	20,186	17,300	16,822	19,000
	South	22,908	18,200	27,756	21,500
	East	3,302	3,800	14,543	11,500
	West	1,362	2,500	8,554	7,400
Palm Dr (NS) at Dillion Rd (EW) - #18	North	27,983	18,300	41,975	27,900
	South	27,429	22,900	43,519	34,000
	East	6,012	4,800	21,704	15,600
	West	3,956	1,700	22,426	14,400
Palm Dr (NS) at 20th Ave (EW) - #19	North	28,044	22,100	48,524	36,200
	South	28,901	9,300	54,116	26,600
	East	2,124	1,000	11,381	7,400
	West	1,206	19,700	8,757	24,900

INTERSECTION	LEG	MODEL 2008 ADT	EXISTING 2018 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]
Palm Dr (NS) at Varner Rd (EW) - #20	North	29,197	**9,600**	57,111	28,800
	South	27,057	**8,800**	56,004	28,700
	East	2,162	**900**	19,907	13,100
	West	-	**-**	17,346	11,900
Mountain View Rd (NS) at Hacienda Ave (EW) - #21	North	896	**7,300**	9,696	13,400
	South	3,406	**5,900**	5,512	7,300
	East	5,366	**1,200**	11,326	5,300
	West	7,896	**400**	7,174	400
Mountain View Rd (NS) at Dillion Rd (EW) - #22	North	7,884	**6,000**	15,970	11,600
	South	9,541	**5,300**	16,287	9,900
	East	6,472	**500**	11,138	3,700
	West	5,416	**300**	17,101	8,300
Mountain View Rd (NS) at Varner Rd (EW) - #23	North	11,467	**5,300**	25,907	15,200
	South	-	**1,200**	5,115	4,700
	East	13,632	**20,200**	38,346	37,200
	West	2,172	**24,200**	18,272	35,300
Long Canyon Rd (NS) at Dillion Rd (EW) - #24	North	3,455	**-**	1,644	-
	South	348	**100**	7,103	4,700
	East	9,076	**5,000**	17,628	10,900
	West	6,461	**5,100**	10,829	8,100

[1] Adjusted for minimum 10% growth over existing average daily traffic volumes for year 2035.

MEMORANDUM

TO: Amy Paulsen, Bill Spain | MIG

FROM: Giancarlo Ganddini | GANDDINI GROUP, INC.

DATE: November 22, 2019

SUBJECT: Desert Hot Springs General Plan Update Traffic Analysis Addendum
18-0236

The purpose of this addendum is to clearly specify the level of signficance for impacts associated with the current General Plan and proposed General Plan Update.

CURRENT GENERAL PLAN IMPACT FINDINGS

Consistent with City practice, as specific development projects are proposed, the City would analyze impacts to the transportation system. While the analysis shows that all roadway segments would operate at an acceptable LOS assuming expansion based on the roadway classification, given the uncertainty of timing regarding future roadway improvements, it is possible that some segments would experience unacceptable LOS prior to installation of the roadway expansion improvement. Additionally, there is also a possibility that not all identified roadway improvements would be ultimately constructed due to site specific physical constraints. Given the uncertainty of timing of installation of roadway improvements, and because there may be physical constraints to expanding roadways as certain locations within the Planning Area, this would be considered a significant and unavoidable impact to roadway segment operations.

Potentially significant/unavoidable impacts have been identified as those where roadway widening is required and there currently exists physical constraints due to adjacent development that may preclude such widening. Any currently undeveloped parcels of land adjacent to future widening locations will be required to provide the necessary right-of-way dedications in conjunction with development.

Study Intersections

Table 1 summarizes the impact findings for the study area intersections. As shown in Table 1, the following six (6) study intersections are forecast to experience significant/unavoidable impacts with buildout of the current General Plan:

- SR-62 at Indian Canyon Drive - #1
- SR-62 at Pierson Boulevard - #2
- SR-62 at Dillon Road - #3
- Indian Canyon Drive at Dillon Road - #7
- Palm Drive at Dillon Road - #18
- Palm Drive at Varner Road - #20
- Mountain View Road at Varner Road - #23

The intersections of SR-62 at Indian Canyon Drive (#1), Pierson Boulevard (#2), and Dillon Road (#3) are located within Caltrans jurisdiction. Although the proposed improvements appear feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

The intersection of Indian Canyon Drive at Dillon Road (#7) has existing development on the south leg of the intersection which may preclude construction of the identified improvements; therefore, the impact is considered potentially significant and unavoidable.

The intersection of Palm Drive at Dillon Road (#18) has existing development on the southwest corner and northeast corner of the intersection which may preclude construction of the identified improvements; therefore, the impact is considered potentially significant and unavoidable.

The intersections of Palm Drive at Varner Road (#20) and Mountain View Road at Varner Road (#23) are located entirely or partially within City of Cathedral City jurisdiction. Although the proposed improvements appear physically feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

Improvements at study intersections located on the boundary with County of Riverside are considered feasible based on past improvements whereby the City and County have jointly constructed any necessary improvements identified by the City of Desert Hot Springs.

Study Roadway Segments

Table 2 summarizes the impact findings for the study area roadway segments. As shown in Table 2, the following seven (7) study roadway segments are forecast to experience significant/unavoidable impacts with buildout of the current General Plan as a result of existing development that may preclude the necessary roadway widening:

- Indian Canyon Drive: Hacienda Avenue and Two Bunch Palms Trail – R19
- Indian Canyon Drive: Dillon Road and 20th Avenue – R21
- West Drive: 8th Street and Pierson Boulevard – R28
- West Drive: Hacienda Avenue and Two Bunch Palms Trail – R29
- Palm Drive: north of Mission Lakes Boulevard – R30
- Palm Drive: Two Bunch Palms Trail and Dillon Road – R34
- Palm Drive: Dillon Road and 20th Avenue – R35
- Palm Drive: Varner Road and I-10 Freeway – R37
- Bubbling Wells Road: Dillon Road and 20th Avenue – R39
- Mountain View Road: Hacienda Avenue and Dillon Road – R40
- Hacienda Avenue: east of Mountain View Road – R64
- Two Bunch Palms Trail: east of Palm Drive – R72

The following roadway segments are not located within the ultimate jurisdictional boundary of the City of Desert Hot Springs:

- Mountain View Road: 20th Avenue and Varner Road
- Dillon Road: Diablo Road and Karen Avenue
- Dillon Road: east of Long Canyon Road

- 20th Avenue: Worsley Road and Diablo Road
- 20th Avenue: Diablo Road and Karen Avenue
- 20th Avenue: Karen Avenue and Indian Canyon Drive
- Varner Road: Palm Drive and Mountain View Road
- Varner Road: east of Mountain View Road

Although these segments require roadway widening, the proposed widening has equal or fewer lanes and right-of-way requirements than those identified in the County of Riverside General Plan. Therefore, it is presumed the widening will occur as necessary and the project impact is considered less than significant with mitigation.

Congestion Management Program (CMP) Impacts

SR-62 and Interstate 10 (I-10) are CMP designated facilities in the Riverside County CMP. The current General Plan does not propose any changes to I-10; however, buildout of the current General Plan could potentially conflict with the CMP if the identified improvements at SR-62 and the intersections of Indian Canyon Drive (#1), Pierson Boulevard (#2), and Dillon Road (#3) are not approved by Caltrans and implemented. Thefefore, buildout of the current General Plan is forecast to result in significant significant/unavoidable impacts at the following three (3) CMP study intersections:

- SR-62 at Indian Canyon Drive - #1
- SR-62 at Pierson Boulevard - #2
- SR-62 at Dillon Road - #3

PROPOSED GENERAL PLAN IMPACT FINDINGS

Consistent with City practice, as specific development projects are proposed, the City would analyze impacts to the transportation system. While the analysis shows that all roadway segments would operate at an acceptable LOS assuming expansion based on the roadway classification, given the uncertainty of timing regarding future roadway improvements, it is possible that some segments would experience unacceptable LOS prior to installation of the roadway expansion improvement. Additionally, there is also a possibility that not all identified roadway improvements would be ultimately constructed due to site specific physical constraints. Given the uncertainty of timing of installation of roadway improvements, and because there may be physical constraints to expanding roadways as certain locations within the Planning Area, this would be considered a significant and unavoidable impact to roadway segment operations.

Potentially significant/unavoidable impacts have been identified as those where roadway widening is required and there currently exists physical constraints due to adjacent development that may preclude such widening. Any currently undeveloped parcels of land adjacent to future widening locations will be required to provide the necessary right-of-way dedications in conjunction with development.

Study Intersections

Table 3 summarizes the impact findings for the study area intersections. As shown in Table 3, the following five (5) study intersections are forecast to experience significant/unavoidable impacts with buildout of the proposed General Plan:

- SR-62 at Indian Canyon Drive - #1
- SR-62 at Pierson Boulevard - #2

- Palm Drive at Dillon Road - #18
- Palm Drive at Varner Road - #20
- Mountain View Road at Varner Road - #23

The intersections of SR-62 at Indian Canyon Drive (#1) and Pierson Boulevard (#2) are located within Caltrans jurisdiction. Although the proposed improvements appear feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

The intersection of Palm Drive at Dillon Road (#18) has existing development on the southwest corner and northeast corner of the intersection which may preclude construction of the identified improvements; therefore, the impact is considered potentially significant and unavoidable.

The intersections of Palm Drive at Varner Road (#20) and Mountain View Road at Varner Road (#23) are located entirely or partially within City of Cathedral City jurisdiction. Although the proposed improvements appear physically feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

Improvements at study intersections located on the boundary with County of Riverside are considered feasible based on past improvements whereby the City and County have jointly constructed any necessary improvements identified by the City of Desert Hot Springs.

Study Roadway Segments

Table 4 summarizes the impact findings for the study area roadway segments. As shown in Table 4, the following seven (7) study roadway segments are forecast to experience significant/unavoidable impacts with buildout of the proposed General Plan as a result of existing development that may preclude the necessary roadway widening:

- Indian Canyon Drive: Hacienda Avenue and Two Bunch Palms Trail – R19
- Indian Canyon Drive: Dillon Road and 20th Avenue – R21
- Palm Drive: Two Bunch Palms Trail and Dillon Road – R34
- Palm Drive: Dillon Road and 20th Avenue – R35
- Palm Drive: Varner Road and I-10 Freeway – R37
- Mountain View Road: Hacienda Avenue and Dillon Road – R40
- Two Bunch Palms Trail: east of Palm Drive – R72

The following roadway segments are not located within the ultimate jurisdictional boundary of the City of Desert Hot Springs:

- Mountain View Road: 20th Avenue and Varner Road
- Dillon Road: Diablo Road and Karen Avenue
- Dillon Road: east of Long Canyon Road
- 20th Avenue: Worsley Road and Diablo Road
- 20th Avenue: Diablo Road and Karen Avenue
- 20th Avenue: Karen Avenue and Indian Canyon Drive
- Varner Road: Palm Drive and Mountain View Road
- Varner Road: east of Mountain View Road

Although these segments require roadway widening, the proposed widening has equal or fewer lanes and right-of-way requirements than those identified in the County of Riverside General Plan. Therefore, it is presumed the widening will occur as necessary and the project impact is considered less than significant with mitigation.

Congestion Management Program (CMP) Impacts

SR-62 and Interstate 10 (I-10) are CMP designated facilities in the Riverside County CMP. The current General Plan does not propose any changes to I-10; however, buildout of the proposed General Plan could potentially conflict with the CMP if the identified improvements at SR-62 and the intersections of Indian Canyon Drive (#1) and Pierson Boulevard (#2) are not approved by Caltrans and implemented. Thefefore, buildout of the current General Plan is forecast to result in significant significant/unavoidable impacts at the following two (2) CMP study intersections:

- SR-62 at Indian Canyon Drive - #1
- SR-62 at Pierson Boulevard - #2

CONCLUSION

Should you have any questions or comments, please contact me at (714) 795-3100 x 101.

Table 1
Study Intersection Significant Impact Findings for Current General Plan Buildout

ID	Study Intersection	Deficient LOS?	Widening Req'd?	Existing Physical Constraints?	Impact Finding
1.	SR-62 (NS) at Indian Canyon Dr (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[1]
2A.	SR-62 SB (NS) at Pierson Blvd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[1]
2B.	SR-62 NB (NS) at Pierson Blvd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[1]
3.	SR-62 (NS) at Dillon Rd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[1]
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	No	--	--	Less Than Significant
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
6.	Indian Canyon Dr (NS) at Two Bunch Palms Trail (EW)	Yes	No	--	Less Than Significant With Mitigation
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	Yes	Yes	Yes	Potentially Significant/Unavoidable
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	Yes	No	--	Less Than Significant With Mitigation
9.	Little Morongo Rd (NS) at Mission Lakes Blvd (EW)	No	--	--	Less Than Significant
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
11.	Little Morongo Rd (NS) at Two Bunch Palms Trail (EW)	Yes	Yes	No	Less Than Significant With Mitigation
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
13.	Little Morongo Rd (NS) at 20th Ave (EW)	Yes	Yes	No	Less Than Significant With Mitigation
14.	Palm Dr (NS) at Mission Lakes Boulevard (EW)	No	--	--	Less Than Significant
15.	Palm Dr (NS) at Pierson Blvd (EW)	No	--	--	Less Than Significant
16.	Palm Dr (NS) at Hacienda Ave (EW)	No	--	--	Less Than Significant
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	No	--	--	Less Than Significant
18.	Palm Dr (NS) at Dillon Rd (EW)	Yes	Yes	Yes	Potentially Significant/Unavoidable
19.	Palm Dr (NS) at 20th Ave (EW)	Yes	Yes	No	Less Than Significant With Mitigation
20.	Palm Dr (NS) at Varner Rd (EW)	Yes	Yes	Yes	Potentially Significant/Unavoidable[2]
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	No	--	--	Less Than Significant
22.	Mountain View Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
23.	Mountain View Rd (NS) at Varner Rd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[2]
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation

Notes:

(1) The study intersection is located within Caltrans jurisdiction. Although the proposed improvements appear feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

(2) The study intersection is located entirely or partially within City of Cathedral City jurisdiction. Although the proposed improvements appear physically feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

Table 2 (1 of 2)
Study Roadway Segment Significant Impact Findings for Current General Plan Buildout

ID	Roadway	Segment	Widening Req'd?	Existing Physical Constraints?	Impact Finding
R1.	Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R2.	Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R3.	Worsley Rd	Pierson Blvd and Hacienda Blvd	Yes	No	Less Than Significant With Mitigation
R4.	Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R5.	Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R6.	Worsley Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R7.	Oasis Dr	Hacienda Ave and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R8.	Diablo Rd	Two Bunch Palms Trail and Dillon Rd	No	--	Less Than Significant
R14.	Indian Canyon Dr	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R15.	Indian Canyon Dr	Worsley Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R16.	Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R17.	Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R18.	Indian Canyon Dr	Pierson Blvd and Hacienda Ave	Yes	No	Less Than Significant With Mitigation
R19.	Indian Canyon Dr	Hacienda Ave to Two Bunch Palms Trail	Yes	Yes	Potentially Significant/Unavoidable
R20.	Indian Canyon Dr	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R21.	Indian Canyon Dr	Dillon Rd and 20th Ave	Yes	Yes	Potentially Significant/Unavoidable
R22.	Little Morongo Rd	north of Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R23.	Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R24.	Little Morongo Rd	Pierson Blvd and Hacienda Ave	Yes	No	Less Than Significant With Mitigation
R25.	Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R26.	Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R27.	Little Morongo Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R28.	West Dr	8th St and Pierson Blvd	Yes	Yes	Potentially Significant/Unavoidable
R29.	West Dr	Hacienda Ave and Two Bunch Palms Trail	Yes	Yes	Potentially Significant/Unavoidable
R30.	Palm Dr	north of Mission Lakes Blvd	Yes	Yes	Potentially Significant/Unavoidable
R31.	Palm Dr	Mission Lakes Blvd and Pierson Blvd	No	--	Less Than Significant
R32.	Palm Dr	Pierson Blvd and Hacienda Ave	No	--	Less Than Significant
R33.	Palm Dr	Hacienda Ave and Two Bunch Palms Trail	No	--	Less Than Significant
R34.	Palm Dr	Two Bunch Palms Trail and Dillon Rd	Yes	Yes	Potentially Significant/Unavoidable
R35.	Palm Dr	Dillon Rd and 20th Ave	Yes	Yes	Potentially Significant/Unavoidable
R36.	Palm Dr	20th Ave and Varner Rd	Yes	No	Less Than Significant With Mitigation
R37.	Palm Dr	Varner Rd and I-10 Freeway	Yes	Yes	Potentially Significant/Unavoidable
R38.	Bubbling Wells Rd	north of Dillon Rd	Yes	No	Less Than Significant With Mitigation
R39.	Bubbling Wells Rd	Dillon Rd and 20th Ave	Yes	Yes	Potentially Significant/Unavoidable
R40.	Mountain View Rd	Hacienda Ave and Dillon Rd	Yes	Yes	Potentially Significant/Unavoidable
R41.	Mountain View Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R42.	Mountain View Rd	20th Ave and Varner Rd	Yes	No	Less Than Significant With Mitigation
R43.	Long Canyon Rd	north of Dillon Rd	Yes	No	Less Than Significant With Mitigation

Table 2 (2 of 2)
Study Roadway Segment Significant Impact Findings for Current General Plan Buildout

ID	Roadway	Segment	Widening Req'd?	Existing Physical Constraints?	Impact Finding
R44.	Mission Lakes Blvd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R45.	Mission Lakes Blvd	Worsley Rd and Karen Rd	Yes	No	Less Than Significant With Mitigation
R46.	Mission Lakes Blvd	Karen Rd and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R47.	Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R48.	Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R49.	Mission Lakes Blvd	Cholla Dr and Palm Dr	Yes	No	Less Than Significant With Mitigation
R50.	Pierson Blvd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R51.	Pierson Blvd	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R52.	Pierson Blvd	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R53.	Pierson Blvd	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R54.	Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R55.	Pierson Blvd	Little Morongo Rd and Cholla Dr	No	--	Less Than Significant
R56.	Pierson Blvd	Cholla Dr and Palm Dr	No	--	Less Than Significant
R57.	Pierson Blvd	east of Palm Dr	No	--	Less Than Significant
R60.	Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R61.	Hacienda Ave	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R62.	Hacienda Ave	Cholla Dr and Palm Dr	Yes	No	Less Than Significant With Mitigation
R63.	Hacienda Ave	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R64.	Hacienda Ave	east of Mountain View Rd	Yes	Yes	Potentially Significant/Unavoidable
R69.	Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R70.	Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R71.	Two Bunch Palms Trail	Cholla Dr and Palm Dr	No	--	Less Than Significant
R72.	Two Bunch Palms Trail	east of Palm Dr	Yes	Yes	Potentially Significant/Unavoidable
R73.	Dillon Rd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R74.	Dillon Rd	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R75.	Dillon Rd	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R76.	Dillon Rd	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R77.	Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R78.	Dillon Rd	Little Morongo Rd and Palm Dr	Yes	No	Less Than Significant With Mitigation
R79.	Dillon Rd	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R80.	Dillon Rd	Mountain View Rd and Long Canyon Rd	Yes	No	Less Than Significant With Mitigation
R81.	Dillon Rd	east of Long Canyon Rd	Yes	No	Less Than Significant With Mitigation
R82.	20th Ave	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R83.	20th Ave	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R84.	20th Ave	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R85.	20th Ave	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R87.	20th Ave	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R89.	Varner Rd	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R90.	Varner Rd	east of Mountain View Rd	Yes	No	Less Than Significant With Mitigation

Table 3
Study Intersection Significant Impact Findings for Proposed General Plan Buildout

ID	Study Intersection	Deficient LOS?	Widening Req'd?	Existing Physical Constraints?	Impact Finding
1.	SR-62 (NS) at Indian Canyon Dr (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[1]
2A.	SR-62 SB (NS) at Pierson Blvd (EW)	Yes	No	--	Potentially Significant/Unavoidable[1]
2B.	SR-62 NB (NS) at Pierson Blvd (EW)	Yes	No	--	Potentially Significant/Unavoidable[1]
3.	SR-62 (NS) at Dillon Rd (EW)	No	--	--	Less Than Significant
4.	Indian Canyon Dr (NS) at Mission Lakes Blvd (EW)	Yes	No	--	Less Than Significant With Mitigation
5.	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
6.	Indian Canyon Dr (NS) at Two Bunch Palms Trail (EW)	Yes	Yes	No	Less Than Significant With Mitigation
7.	Indian Canyon Dr (NS) at Dillon Rd (EW)	Yes	Yes	Yes	Potentially Significant/Unavoidable
8.	Indian Canyon Dr (NS) at 20th Ave (EW)	Yes	No	--	Less Than Significant With Mitigation
9.	Little Morongo Rd (NS) at Mission Lakes Blvd (EW)	No	--	--	Less Than Significant
10.	Little Morongo Rd (NS) at Pierson Blvd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
11.	Little Morongo Rd (NS) at Two Bunch Palms Trail (EW)	Yes	Yes	No	Less Than Significant With Mitigation
12.	Little Morongo Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
13.	Little Morongo Rd (NS) at 20th Ave (EW)	Yes	No	--	Less Than Significant With Mitigation
14.	Palm Dr (NS) at Mission Lakes Boulevard (EW)	No	--	--	Less Than Significant
15.	Palm Dr (NS) at Pierson Blvd (EW)	No	--	--	Less Than Significant
16.	Palm Dr (NS) at Hacienda Ave (EW)	No	--	--	Less Than Significant
17.	Palm Dr (NS) at Two Bunch Palms Trail (EW)	No	--	--	Less Than Significant
18.	Palm Dr (NS) at Dillon Rd (EW)	Yes	Yes	Yes	Potentially Significant/Unavoidable
19.	Palm Dr (NS) at 20th Ave (EW)	Yes	Yes	No	Less Than Significant With Mitigation
20.	Palm Dr (NS) at Varner Rd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[2]
21.	Mountain View Rd (NS) at Hacienda Ave (EW)	No	--	--	Less Than Significant
22.	Mountain View Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation
23.	Mountain View Rd (NS) at Varner Rd (EW)	Yes	Yes	No	Potentially Significant/Unavoidable[2]
24.	Long Canyon Rd (NS) at Dillon Rd (EW)	Yes	Yes	No	Less Than Significant With Mitigation

Notes:

(1) The study intersection is located within Caltrans jurisdiction. Although the proposed improvements appear feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

(2) The study intersection is located entirely or partially within City of Cathedral City jurisdiction. Although the proposed improvements appear physically feasible, the City of Desert Hot Springs cannot guarantee any improvements will be constructed outside of its jurisdiction and the impact is considered potentially significant and unavoidable.

Table 2 (1 of 3)
Study Roadway Segment Significant Impact Findings for Proposed General Plan Buildout

ID	Roadway	Segment	Widening Req'd?	Existing Physical Constraints?	Impact Finding
R1.	Worsley Rd	Indian Canyon Dr and Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R2.	Worsley Rd	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R3.	Worsley Rd	Pierson Blvd and Hacienda Blvd	Yes	No	Less Than Significant With Mitigation
R4.	Worsley Rd	Hacienda Blvd and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R5.	Worsley Rd	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R6.	Worsley Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R7.	Oasis Dr	Hacienda Ave and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R8.	Diablo Rd	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R9.	Karen Ave	Indian Canyon Dr and Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R10.	Karen Ave	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R11.	Karen Ave	Pierson Blvd and Hacienda Ave	Yes	No	Less Than Significant With Mitigation
R12.	Karen Ave	Hacienda Ave and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R13.	Karen Ave	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R14.	Indian Canyon Dr	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R15.	Indian Canyon Dr	Worsley Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R16.	Indian Canyon Dr	Karen Ave and Mission Lakes Blvd	Yes	No	Less Than Significant With Mitigation
R17.	Indian Canyon Dr	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R18.	Indian Canyon Dr	Pierson Blvd and Hacienda Ave	Yes	No	Less Than Significant With Mitigation
R19.	Indian Canyon Dr	Hacienda Ave to Two Bunch Palms Trail	Yes	Yes	Potentially Significant/Unavoidable
R20.	Indian Canyon Dr	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R21.	Indian Canyon Dr	Dillon Rd and 20th Ave	Yes	Yes	Potentially Significant/Unavoidable
R22.	Little Morongo Rd	north of Mission Lakes Blvd	No	--	Less Than Significant
R23.	Little Morongo Rd	Mission Lakes Blvd and Pierson Blvd	Yes	No	Less Than Significant With Mitigation
R24.	Little Morongo Rd	Pierson Blvd and Hacienda Ave	Yes	No	Less Than Significant With Mitigation
R25.	Little Morongo Rd	Hacienda Ave and Two Bunch Palms Trail	Yes	No	Less Than Significant With Mitigation
R26.	Little Morongo Rd	Two Bunch Palms Trail and Dillon Rd	Yes	No	Less Than Significant With Mitigation
R27.	Little Morongo Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R28.	West Dr	8th St and Pierson Blvd	No	--	Less Than Significant
R29.	West Dr	Hacienda Ave and Two Bunch Palms Trail	No	--	Less Than Significant
R30.	Palm Dr	north of Mission Lakes Blvd	No	--	Less Than Significant
R31.	Palm Dr	Mission Lakes Blvd and Pierson Blvd	No	--	Less Than Significant
R32.	Palm Dr	Pierson Blvd and Hacienda Ave	No	--	Less Than Significant
R33.	Palm Dr	Hacienda Ave and Two Bunch Palms Trail	No	--	Less Than Significant
R34.	Palm Dr	Two Bunch Palms Trail and Dillon Rd	Yes	Yes	Potentially Significant/Unavoidable
R35.	Palm Dr	Dillon Rd and 20th Ave	Yes	Yes	Potentially Significant/Unavoidable
R36.	Palm Dr	20th Ave and Varner Rd	Yes	No	Less Than Significant With Mitigation
R37.	Palm Dr	Varner Rd and I-10 Freeway	Yes	Yes	Potentially Significant/Unavoidable
R38.	Bubbling Wells Rd	north of Dillon Rd	No	--	Less Than Significant
R39.	Bubbling Wells Rd	Dillon Rd and 20th Ave	No	--	Less Than Significant
R40.	Mountain View Rd	Hacienda Ave and Dillon Rd	Yes	Yes	Potentially Significant/Unavoidable
R41.	Mountain View Rd	Dillon Rd and 20th Ave	Yes	No	Less Than Significant With Mitigation
R42.	Mountain View Rd	20th Ave and Varner Rd	Yes	No	Less Than Significant With Mitigation

Table 2 (2 of 3)
Study Roadway Segment Significant Impact Findings for Proposed General Plan Buildout

ID	Roadway	Segment	Widening Req'd?	Existing Physical Constraints?	Impact Finding
R43.	Long Canyon Rd	north of Dillon Rd	Yes	No	Less Than Significant With Mitigation
R44.	Mission Lakes Blvd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R45.	Mission Lakes Blvd	Worsley Rd and Karen Rd	Yes	No	Less Than Significant With Mitigation
R46.	Mission Lakes Blvd	Karen Rd and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R47.	Mission Lakes Blvd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R48.	Mission Lakes Blvd	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R49.	Mission Lakes Blvd	Cholla Dr and Palm Dr	Yes	No	Less Than Significant With Mitigation
R50.	Pierson Blvd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R51.	Pierson Blvd	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R52.	Pierson Blvd	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R53.	Pierson Blvd	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R54.	Pierson Blvd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R55.	Pierson Blvd	Little Morongo Rd and Cholla Dr	No	--	Less Than Significant
R56.	Pierson Blvd	Cholla Dr and Palm Dr	No	--	Less Than Significant
R57.	Pierson Blvd	east of Palm Dr	No	--	Less Than Significant
R58.	Hacienda Ave	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R59.	Hacienda Ave	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R60.	Hacienda Ave	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R61.	Hacienda Ave	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R62.	Hacienda Ave	Cholla Dr and Palm Dr	Yes	No	Less Than Significant With Mitigation
R63.	Hacienda Ave	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R64.	Hacienda Ave	east of Mountain View Rd	No	--	Less Than Significant
R65.	Two Bunch Palms Trail	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R66.	Two Bunch Palms Trail	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R67.	Two Bunch Palms Trail	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R68.	Two Bunch Palms Trail	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R69.	Two Bunch Palms Trail	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R70.	Two Bunch Palms Trail	Little Morongo Rd and Cholla Dr	Yes	No	Less Than Significant With Mitigation
R71.	Two Bunch Palms Trail	Cholla Dr and Palm Dr	No	--	Less Than Significant
R72.	Two Bunch Palms Trail	east of Palm Dr	Yes	Yes	Potentially Significant/Unavoidable
R73.	Dillon Rd	SR-62 and Worsley Rd	Yes	No	Less Than Significant With Mitigation
R74.	Dillon Rd	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R75.	Dillon Rd	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R76.	Dillon Rd	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R77.	Dillon Rd	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R78.	Dillon Rd	Little Morongo Rd and Palm Dr	Yes	No	Less Than Significant With Mitigation
R79.	Dillon Rd	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R80.	Dillon Rd	Mountain View Rd and Long Canyon Rd	Yes	No	Less Than Significant With Mitigation
R81.	Dillon Rd	east of Long Canyon Rd	Yes	No	Less Than Significant With Mitigation

Table 2 (3 of 3)
Study Roadway Segment Significant Impact Findings for Proposed General Plan Buildout

ID	Roadway	Segment	Widening Req'd?	Existing Physical Constraints?	Impact Finding
R82.	20th Ave	Worsley Rd and Diablo Rd	Yes	No	Less Than Significant With Mitigation
R83.	20th Ave	Diablo Rd and Karen Ave	Yes	No	Less Than Significant With Mitigation
R84.	20th Ave	Karen Ave and Indian Canyon Dr	Yes	No	Less Than Significant With Mitigation
R85.	20th Ave	Indian Canyon Dr and Little Morongo Rd	Yes	No	Less Than Significant With Mitigation
R87.	20th Ave	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R88.	Varner Rd	Mihaylo Rd and Palm Dr	Yes	No	Less Than Significant With Mitigation
R89.	Varner Rd	Palm Dr and Mountain View Rd	Yes	No	Less Than Significant With Mitigation
R90.	Varner Rd	east of Mountain View Rd	Yes	No	Less Than Significant With Mitigation

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