APPENDIX G/INITIAL STUDY FOR A MITIGATED NEGATIVE DECLARATION

Environmental Checklist Form for:
Environmental Assessment No. T-6374/P22-00985

Note to preparer:

1.	**Project title:** Vesting Tentative Tract Map Application No. 6374 and Planned Development Application No. P22-00985
2.	**Lead agency name and address:** City of Fresno Planning and Development Department 2600 Fresno Street Fresno, CA 93721
3.	**Contact person and phone number:** Rob Holt, Planner III City of Fresno Planning and Development Department (559) 621-8056
4.	**Project location:** Located on the north side of East Dakota Avenue, approximately 600 feet east of North Fowler Avenue in the City and County of Fresno, California Site Latitude: 36º47'16.80" N Site Longitude: 119º40'44.40" W Mount Diablo Base & Meridian, Township 13S, Range 21E, Section 22 Assessor's Parcel Number(s): 310-201-03
5.	**Project sponsor's name and address:** Bill Walls Lennar Central Valley 8080 N. Palm Avenue, Suite 110 Fresno, CA 93711
6.	**General & Community plan land use designation:** General Plan: Urban Neighborhood Density Residential Community Plan: McLane Community Plan
7.	**Zoning:** RM-2 (Residential Multi-Family, Urban Neighborhood)
8.	**Description of project:** Vesting Tentative Tract Map No. 6374 and Planned Development Permit Application

No. P22-00985 were filed by Yamabe & Horn Engineering, Inc., on behalf of Lennar Homes of California. The applicant proposes to construct a 145-lot private single-unit dwelling, attached (townhome) subdivision including a private gated entrance, community residential pool and a pool restroom, and 68 covered and 23 uncovered (91 total) parking spaces on approximately 9.33 acres of land (Project). The proposed development would include two-story townhomes from 2 to 4 bedrooms ranging in size from 1,383 to 1,460 square feet with the associated road, two-car garages for each unit, and utility improvements. The Project is located on the north side of East Dakota Avenue and east of North Fowler Avenue in the City of Fresno, California (APN 310-201-03).

Access to the proposed subdivision will be from East Dakota Avenue. All required improvements are proposed and will be installed by the developer as part of the Project.

Construction

The proposed Project includes the construction of a 145-lot private single-unit dwelling, attached (townhomes) subdivision with the associated private road and utility improvements on an existing parcel currently used for agricultural purposes. There will be approximately 7 phases with approximately 20 units constructed per phase. Construction will take 24 months with a total buildout of the homes in November of 2025.

It is anticipated that the following pieces of equipment would be used during construction activities:

- Roller;
- Large bulldozer;
- Loaded trucks;
- Excavator;
- Generator;
- Service truck; and
- Air compressor.

9. **Surrounding land uses and setting:**

	Planned Land Use	Existing Zoning	Existing Land Use
North	Residential – Medium Low Density	**RS-4/UGM** *(Residential Single-Family, Medium Low Density/Urban Growth Management)*	Community and Religious Assembly (Church)
East	Residential – Low Density	**RS-1/UGM** *(Residential Single-Family, Low Density/Urban Growth Management)*	Rural Residence
South	Residential – Medium Density	**RS-5** *(Residential Single-Family, Medium Density)*	Vacant
West	Residential – Medium Density	**RS-5** *(Residential Single-Family, Medium Density)*	Single-Family Residential Neighborhood

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

Planning and Development Department, Building & Safety Services Division; Department of Public Works; Department of Public Utilities; County of Fresno, Department of Environmental Health; County of Fresno, Department of Public Works and Planning; City of Fresno Fire Department; Fresno Metropolitan Flood Control District; and San Joaquin Valley Air Pollution Control District.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, has consultation begun?**

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the California Environmental Quality Act (CEQA) Guidelines. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or,

	the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. These Rancherias are not located within the city limits. Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality. Currently, the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe have requested to be notified pursuant to Assembly Bill 52 (AB 52) A certified letter was mailed to the above-mentioned tribes on May 23, 2022. The 30-day comment period ended on June 22, 2022. Neither tribe requested a consultation.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources
☐	Air Quality	☐	Biological Resources
☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions
☐	Hazards and Hazardous Materials	☐	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing
☐	Public Services	☐	Recreation
☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire
☐	Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

___	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
_X_	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
___	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
___	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
___	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____, Planner III_____09/09/2022_____
Planner Name, Title Date

EVALUATION OF ADDITIONAL ENVIRONMENTAL IMPACTS NOT ASSESSED IN PROGRAM ENVIRONMENTAL IMPACT REPORT SCH NO. 2019050005 PREPARED FOR THE APPROVED FRESNO GENERAL PLAN (GP PEIR):

Note to preparer: For projects that are consistent with the Fresno General Plan and Zoning (or where the zoning will be changed only for the purposes of achieving consistency with the General Plan), tiering pursuant to CEQA Guidelines Section 15152 may be used. If tiering will be used, please comply with the requirements of Section 15152(g).

For projects that are not completely consistent with the Fresno General Plan and Zoning (i.e. projects that include a General Plan Amendment and/or Rezone), the provisions of

CEQA Guidelines Section 15152 do not apply. However, the GP PEIR and its analysis may still be incorporated by reference to provide a basis for the project's initial study, to address regional influences, secondary effects, cumulative impacts, and broad alternatives pursuant to CEQA Guidelines 15168(d).

1. For purposes of this Initial Study, the following answers have the corresponding meanings:

    a. "No Impact" means the specific impact category does not apply to the project or that the record sufficiently demonstrates that project-specific factors or general standards applicable to the project will result in no impact for the threshold under consideration.

    b. "Less Than Significant Impact" means there is an impact related to the threshold under consideration, but that impact is less than significant.

    c. "Less Than Significant with Mitigation Incorporation" means there is a potentially significant impact related to the threshold under consideration; however, with the mitigation incorporated into the project, the impact is less than significant. For purposes of this Initial Study "mitigation incorporated into the project" means mitigation originally described in the GP PEIR and applied to an individual project, as well as mitigation developed specifically for an individual project.

    d. "Potentially Significant Impact" means there is substantial evidence that an effect may be significantly related to the threshold under consideration.

2. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

3. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

4. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (6) below, may be cross-referenced).

6. Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in the PEIR or another earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

9. The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and

    b. The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in PRC Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality 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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

A scenic vista is a viewpoint that provides a distant view of highly valued natural or man-made landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance.

The City of Fresno General Plan (GP PEIR) identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be

maintained. The scenic views from the San Joaquin River bluffs are not expected to be substantially affected since the land uses included in the approved General Plan are similar to current land uses. As such, implementation of future development associated with the continued implementation of the approved General Plan would result in a less than significant impact on existing designated vista points.

According to the GP PEIR, scenic views are also attributed to public views of buildings in Downtown Fresno that provide a skyline within the Planning Area. Due to relatively flat topography, intervening land uses, and landscaping, views of the skyline are primarily limited to areas within the Downtown Fresno area. Limited views of existing high-rise buildings in Downtown Fresno are visible from portions of elevated freeways, including SR 41, SR 99, and SR 180. The continued implementation of the approved General Plan would allow future development in the Downtown area, which could include additional high rises. While views of scenic resources in the Downtown Fresno area may be partially obstructed following future development as allowed by the approved General Plan, existing development in these areas currently inhibits views of scenic vistas.

The Project site is located within an area designated for residential zoning and land use designation within the City of Fresno, outside of the San Joaquin River bluffs and Downtown Fresno area. Properties further to the north, south and west have also been developed with single-family residential neighborhoods. The subject Project site is currently undeveloped. The existing topography of the Project site is nearly flat, with elevations ranging from 345 to 350 feet above mean sea level (asml). There will be *no impacts* to scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Scenic resources include landscapes and features that are visually or aesthetically pleasing. They contribute positively to a distinct community or region. According to the City of Fresno General Plan (GP PEIR), there are no eligible or officially-designated State Scenic Highways within the Planning Area. However, Fresno County has three eligible State Scenic Highways; the nearest eligible highways include a portion of SR 180 (approximately 7 miles east of the City of Fresno) and a portion of SR 168 (approximately 5 miles east of the City of Fresno). The nearest officially-designated State Scenic Highway is located more than 30 miles northeast of the City of Fresno within the County of Madera. Due to intervening land uses and distance, the continued implementation of the GP PEIR would not impact scenic resources from these eligible and officially-designated State Scenic Highways nearest to the City. Therefore, since there are no eligible or officially-designated State Scenic Highways within or in close proximity to the Planning Area, future development in accordance with continued implementation of the approved General Plan would not impact scenic resources within a designated state scenic highway.

As identified in the GP PEIR, although there are no eligible or officially-designated

State Scenic Highways exist in the Planning Area, the GP PEIR designates the following local scenic corridors:

- Van Ness Boulevard – Weldon to Shaw Avenues
- Van Ness Extension – Shaw Avenue to the San Joaquin River Bluff
- Kearney Boulevard – Fresno Street to Polk Avenue
- Van Ness-Fulton couplet – Weldon Avenue to Divisadero
- Butler Avenue – Peach to Fowler Avenues
- Minnewawa Avenue – Belmont Avenue to Central Canal
- Huntington Boulevard – First Street to Cedar Avenue
- Shepherd Avenue – Friant Road to Willow Avenue
- Audubon Drive – Blackstone to Herndon Avenues
- Friant Road – Audubon to Millerton Roads
- Tulare Avenue – Sunnyside to Armstrong Avenues
- Ashlan Avenue – Palm to Maroa Avenues

The Project site is not located within or near any of the above-referenced local scenic corridors. The Project will not damage, nor will it degrade the visual character or quality of the Project site and its surroundings, given that the site is within an area utilized for wastewater treatment and agriculture. The Project site is not located within the vicinity of a State designated scenic highway, as it is located within the City of Fresno Planning Area, outside of any designated State Scenic Highways discussed above, nor is the Project adjacent to any local scenic arterial, scenic collector streets, or historic buildings and land features such as trees and outcroppings. Therefore, the proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, and there would be *no impacts*.

Mitigation Measure

No mitigation measures are required.

c) In non-urbanized areas, 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 Project will not damage nor will it degrade the visual character or quality of public views of the Project site and its surroundings because the Project site is primarily vacant, in an area that was previously utilized for agriculture; however, the site is zoned for and surrounded with areas of residential uses.

As such, impacts to the visual character or quality of the site would be *less than significant* due to the development improving the existing character of the site and the surrounding properties being of a similar use.

Mitigation Measure

No mitigation measures are required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

During construction, the Project will not introduce new sources of permanent light to the area. Construction will occur during daylight hours During construction, the staging areas would have temporary lighting that will conform with lighting standards established in the City Municipal Code (Article 25, Performance Standards).

The Project is within an area that already consists of daytime and nighttime lighting and would include lighting of a similar nature. The Project site is within an area where residential development has already occurred, which already affects day and nighttime views in the Project site to a certain degree.

The Project would incorporate the applicable mitigation measures pertaining to light and glare included in the PEIR (AES-4.1). Lights will be shielded and downward pointed to minimize light trespass onto other properties. Furthermore, through the entitlement process, staff will ensure that streetlights are located in areas that will minimize light sources to the neighboring properties in accordance with the mitigation measures of the PEIR pertaining to light and glare.

In conclusion, the Project will not result in any additional impacts related to aesthetics. The Project impacts are considered *less than significant with mitigation incorporation*.

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Mitigation Measures The proposed project shall implement and incorporate, as applicable, the aesthetic-related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated September 2021.

PEIR MM AES-4.1: Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light-sensitive land uses such as residences.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – 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 Dept. 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 compiled 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. Would the project:				
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X

DISCUSSION

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?

Based upon the State of California Department of Conservation California Conservation Farmland Mapping and Monitoring Program, the Project site is within "Farmland of Local Importance." Policy RC-9-c of the General Plan describes the City's coordination with regional partners to establish a Farmland Preservation Program, however this program does not include Farmland of Local Importance. Additionally, the General Plan discusses the conversion of Farmland and discourages "leapfrog" development that is not contiguous to the existing urbanized area. This project is contiguous to an existing urbanized area and would a be natural progression that allows orderly and consistent development of residences to meet the growing demand for housing in the City.

The site has previously been used for agricultural purposes but based on available aerial data, it was not being used as agriculture since at least prior to 1998 and is currently vacant and surrounded by residential development. The site is zoned Residential – Urban Neighborhood and not for agricultural uses (City of Fresno, 2021). Given these circumstances, the proposed Project would have *no impact.*

Mitigation Measure

No mitigation measures are required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project site is not subject to a Williamson Act agricultural land conservation contract. Therefore, the proposed Project on the subject site will not affect existing

agriculturally zoned or Williamson Act contract parcels. Therefore, the proposed Project will have *no impact* on Williamson Act contracts or zoning for agricultural use.

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

According to the City of Fresno GP PEIR, the Planning Area is not used for forestry purposes, and no properties within the Planning Area are designated or zoned for forestry uses. The Project site is not considered forest land or timberland. Therefore, the proposed Project will not conflict with any forest land or Timberland Production or result in any loss of forest land. There is *no impact*.

Mitigation Measure

No mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The Project site is not considered forest land and is located within the urban bounds of the City of Fresno and is surrounded by development. Therefore, the proposed Project will not result in the loss of any forest land or result in the conversion of forest land to non-forest uses. There is *no impact*.

Mitigation Measure

No mitigation measures are 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?

See Impact #II (a), above, The Project site is within Farmland of Local Importance as defined by the California Farmland Mapping and Monitoring Program; however, as noted above, the area is zoned for residential uses and has been analyzed by the City General Plan. Additionally, the Project area is not being used for agricultural purposes and has not been farmed for over 22 years. Therefore, the Project would result in *no impact* on farmland or forest land involving other changes in the existing environment.

Mitigation Measure

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan (*e.g.*, by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?			X	
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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

The analysis below is based on a Small Project Analysis Level Assessment (SPAL) prepared for the Project (Trinity Consultants, 2022). The SPAL is included in this document as Appendix A.

The Project site is located in the City of Fresno and within the San Joaquin Valley Air Basin (SJVAB) which is regulated by the San Joaquin Valley Air Pollution Control District (SJVAPCD). This region has had chronic non-attainment of federal and state clean air standards for ozone/oxidants and particulate matter due to a combination of topography

and climate. The San Joaquin Valley (Valley) is hemmed in on three sides by mountain ranges, with prevailing winds carrying pollutants and pollutant precursors from urbanized areas to the north (and in turn contributing pollutants and precursors to downwind air basins). The Mediterranean climate of this region, with a high number of sunny days and little or no measurable precipitation for several months of the year, fosters photochemical reactions in the atmosphere, creating ozone and particulate matter. Regional factors affect the accumulation and dispersion of air pollutants within the SJVAB.

Air pollutant emissions overall are fairly constant throughout the year, yet the concentrations of pollutants in the air vary from day to day and even hour to hour. This variability is due to complex interactions of weather, climate, and topography. These factors affect the ability of the atmosphere to disperse pollutants. Conditions that move and mix the atmosphere help disperse pollutants, while conditions that cause the atmosphere to stagnate allow pollutants to concentrate. Local climatological effects, including topography, wind speed and direction, temperature, inversion layers, precipitation, and fog, can exacerbate the air quality problem in the SJVAB.

The SJVAB is approximately 250 miles long and averages 35 miles wide and is the second-largest air basin in the state. The SJVAB is defined by the Sierra Nevada in the east (8,000 to 14,000 feet in elevation), the Coastal Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains in the south (6,000 to 8,000 feet in elevation). The Valley is basically flat with a slight downward gradient to the northwest. The Valley opens to the sea at the Carquinez Straits, where the San Joaquin- Sacramento Delta empties into San Francisco Bay. The Valley, thus, could be considered a “bowl” open only to the north.

During the summer, wind speed and direction data indicate that summer wind usually originates at the north end of the Valley and flows in a south-southeasterly direction through the Valley, through Tehachapi pass, into the Southeast Desert Air Basin. In addition, the Altamont Pass also serves as a funnel for pollutant transport from the San Francisco Bay Area Air Basin into the region.

During the winter, wind speed and direction data indicate that wind occasionally originates from the south end of the Valley and flows in a north-northwesterly direction. Also, during the winter months, the Valley generally experiences light, variable winds (less than 10 mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high carbon monoxide (CO) and particulate matter (PM10 and PM2.5) concentrations. The SJVAB has an “Inland Mediterranean” climate averaging over 260 sunny days per year. The Valley floor is characterized by warm, dry summers and cooler winters. For the entire Valley, high daily temperature readings in summer average 95ºF. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50s, but highs in the 30s and 40s can occur on days with persistent fog and low cloudiness. The average daily low temperature is 45ºF.

The vertical dispersion of air pollutants in the Valley is limited by the presence of persistent temperature inversions. Solar energy heats up the Earth’s surface, which in

turn radiates heat and warms the lower atmosphere. Therefore, as altitude increases, the air temperature usually decreases due to increasing distance from the source of heat. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface or at any height above the ground and tend to act as a lid on the Valley, holding in the pollutants that are generated here.

DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

The SJVAB is designated nonattainment of State and federal health-based air quality standards for ozone and $PM_{2.5}$and nonattainment of State PM_{10}. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- 2016 Ozone Plan;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2016 $PM_{2.5}$ Plan.

The SJVAPCD Small Project Analysis Level (SPAL) process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters, according to the SPAL review parameters, has "no possibility of exceeding criteria pollutant emissions thresholds."

As shown in Table 3.4.3-1, the proposed Project would not exceed the established SPAL thresholds for townhomes. Based on the above information, this Project qualifies for a limited air analysis applying the SPAL guidance to determine air quality impacts, and impacts would be *less than significant.*

Table 3.4.3-1
Small Project Analysis Level – Units in Residential

Land Use Category –Residential	Project Size (dwelling unit)
Townhomes/Condominiums	256
Proposed Project – Single Family	145
SPAL Exceeded?	**No**

Source: (Trinity Consultants, 2022)

Mitigation Measure

No mitigation measures are required.

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?

The nonattainment pollutants for the SJVAPCD are ozone, $PM_{10,}$ and $PM_{2.5}$. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM_{10}, and $PM_{2.5}$. As shown in Table 3.4.3-2, the Project's emissions during temporary construction activities would not exceed thresholds. Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 3.4.3-2
Project Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
2022 Construction Emissions	0.30	2.59	2.67	0.005	0.32	0.18
2023 Construction Emissions	1.45	0.73	0.93	0.002	0.07	0.04
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. Most of these emissions impacts are from mobile sources traveling to and from the Project area.. However, these impacts also would not exceed thresholds as shown in Table 3.4.3-3.

Table 3.4.3-3
Total Project Operational Emissions

EmissionsSource	Pollutant					
	ROG	NOx	CO	SOx	PM10	PM2.5
	(tons/year)					
Unmitigated						
Operational Emissions	1.10	0.77	5.20	0.01	1.18	0.33
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	No	No	No	No	No	No
Mitigated						
Operational Emissions	1.09	0.71	4.83	0.01	1.04	0.29
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

The long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL

screening thresholds and would result in *less-than-significant impacts*.

Mitigation Measure

No mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Sensitive Receptors
Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illnesses. SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest off-site sensitive receptors are existing residences located adjacent to the Project site to the east, south, and west. The closest schools are Roger S. Oraze Elementary School, approximately 0.3 miles to the southeast, Miramonte Elementary School approximately 0.4 miles to the northwest, and Gettysburg Elementary School approximately 0.7 miles to the north. The closest daycare facilities are MJ's Infant Care & Preschool approximately 0.3 miles to the northwest, Little Blue Tots Daycare approximately 0.6 miles to the south, and Brighten Academy Preschool approximately 0.5 miles to the north of the Project. There are no other known schools, hospitals, or nursing homes within a one-mile radius of the Project. As a residential land use development project, proposed residences included as part of the Project would be considered sensitive receptors once occupied.

Off-site Sensitive Receptors
Impacts to receptors located outside the Project boundaries would occur primarily during Project construction. Construction emissions commence with the year 2022 and continue until Project buildout. Construction activities are expected to occur over several years as the subdivision is gradually built out; however, most emissions are expected to occur during the initial site preparation and grading activities and, to a lesser extent, during ground-up construction. For criteria pollutants, impacts to receptors located outside of the Project are based on emissions during the highest emissions during any construction year. Therefore, this impact would be less than significant.

On-site Sensitive Receptors
The Project is not a significant source of TAC emissions. Construction activities produce short-term emissions that would not contribute substantially to cancer risk, which is estimated on a 70-year exposure period.

Construction: ROG
ROG is emitted during the application of architectural coatings (painting). The amount emitted is dependent on the amount of ROG (or VOC) in the paint. ROG emissions are typically an indoor air quality health hazard concern rather than an outdoor air

quality health hazard concern. Therefore, exposure to ROG during architectural coatings is a less than significant health impact. Therefore, the impact will be *less than significant*.

There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure to fumes. Residents are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction would be less than significant.

Localized Pollutant Screening Analysis
Emissions occurring at or near the Project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the SJVAB are PM10, PM2.5, NOX, and CO. There is no localized emission standard for ROG, and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only.

GAMAQI recommends that Lead Agencies consider situations wherein a new or modified source of HAPs is proposed for a location near an existing residential area or other sensitive receptors when evaluating potential impacts related to HAPs. Typical sources of HAPs include diesel trucks or permitted sources such as engines, boilers, or storage tanks. Because the project is not considered an operational source of increased HAPs and construction is to be temporary, no screening level Health Risk

Assessment (HRA) was required. Therefore, the Project would not result in significant impacts to sensitive receptors. There would be a *less than significant impact.*

Mitigation Measure

No mitigation measures are required.

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

The proposed Project is a residential community located near other residential neighborhoods, and commercial land uses as discussed in Impact #3.4.3c, above.

SJVAPCD identifies some common types of facilities that have been known to produce odors in the SJVAB, such as wastewater treatment facilities, sanitary landfills, transfer stations, composting facilities, petroleum refinery, asphalt batch plants, chemical manufacturing plants, fiberglass manufacturing, paint/coating operations, food processing facilities, feed lot/dairy, and rendering plants (SJVAPCD, 2015). These can be used as a screening tool to qualitatively assess a Project's potential to adversely affect area receptors.

Because the Project is a residential project and the anticipated activities for the Project site are not listed in the SJVAPCD as a source that would create objectionable odors, the project is not expected to be a source of objectionable odors. Therefore, impacts would be *less than significant.*

Mitigation Measures

No mitigation is required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
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 California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
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 California Department of Fish and Game or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

DISCUSSION

The biological resources evaluation is based upon a review of available literature, databases, and existing site conditions evaluated during a reconnaissance survey. These studies evaluated the potential for sensitive biological resources to occur on and in the vicinity of the Project, and any impacts that could potentially occur. A copy of the biological survey form is included as Appendix B of this document.

Queries of the California Department of Fish and Wildlife's California Natural Diversity Database (California Department of Fish and Wildlife, 2021), the California Native Plant Society's Rare Plant Program Inventory (California Native Plant Society, 2021), and the United States Fish and Wildlife Service's Information for Planning and Consultation online tool (US Fish and Wildlife Service, 2021a) were conducted to identify special-status plant and wildlife species with the potential to occur within the Project and in the vicinity of the Project. These queries were centered on the *Clovis*, California USGS 7.5" quadrangle, within which the Project is located, and the surrounding eight quadrangles. Information regarding the presence of Critical Habitat in the Project vicinity was obtained from the United States Fish and Wildlife Service's Critical Habitat Mapper database (USFWS, 2021b). The results of the database inquiries were reviewed to evaluate the potential for the occurrence of special-status species and other sensitive biological resources known to occur on or near the Project site prior to conducting the biological reconnaissance survey.

This analysis is based on a biological reconnaissance survey of the Project and accessible areas within 250 feet (Biological Survey Area, BSA). The Project was completely fenced with chain link fencing and was inaccessible, so the Project area was observed from its perimeter with the aid of binoculars. The 250-foot buffer surrounding the Project consisted mainly of private property, so these areas were also surveyed from

a distance with the aid of binoculars. Nearly 100 percent of the Survey Area was visible using this survey technique.

The purpose of the survey was to determine the presence and extent of existing plant communities and any sensitive habitats, the presence and potential for occurrence of special-status plant and animal species, and to identify any other sensitive biological resources within the Survey Area. Protocol surveys for specific special-status wildlife species were not conducted. Locational data were documented using the Esri ArcGIS Collector application installed on an iPad. Photographs were taken to document the existing landscape and any sensitive biological resources. Plant and wildlife species and current site conditions were recorded while conducting the survey.

General Site Conditions

The Project is located on 20 acres on the eastern side of the City of Fresno in Fresno County, California. Fresno is situated within the San Joaquin Valley, most of which has been developed for agricultural and urban use. The Project is bordered by North Fowler Avenue and residential development to the west, East Dakota Avenue and a disked agricultural field to the south, a field of non-native grasses and the Mountain View Community Church to the north, and a field of non-native grasses and residential development to the east. Land use surrounding the Project is primarily residential and commercial.

Based on historical aerial imagery, the eastern half and northwestern quadrant of the Project appear to have been cultivated with row crops as recently as 2017 (Google 2021). Observations from the site survey revealed these areas were dominated by non-native and invasive grasses, predominantly foxtail barely (*Hordeum marinum*), and appeared to have been disked somewhat recently. A chain link fence bisects the eastern and western halves of the Project site, and another fence bisects the northwestern and southwestern quadrants There is a home with multiple storage sheds on the southwestern quadrant of the Project site, which have some planted ornamental species like Mexican fan palm (*Washingtonia robusta*) and oleander (*Nerium oleander*). Vegetation observed in the 250-foot buffer includes planted ornamental species around homes and the church, and ruderal species along roadway shoulders and in the non-native grassland, including wild oat (*Avena* sp.), annual burweed (*Ambrosia acanthicarpa*), and cheeseweed (*Malva parviflora*). Almost all annual species observed were dry and senesced.

The wildlife species observed during the survey were typical of urban habitats of the San Joaquin Valley. Avian species observed include American crow (*Corvus brachryhnchos*), northern mockingbird (*Mimus polyglottos*), and house sparrow (*Passer domesticus*). A domestic dog (*Canis familiaris*) was observed at the residential property on the southwest corner of the Project, where it had access to the rest of the Project through a gap in the fence. A California ground squirrel (*Otospermophilus beecheyi*) was observed in the 250-buffer near the church. The non-native grassland on the Project site had been recently disked and no small mammal burrows were observed.

There were 25 plant species, ten (10) bird species, and two mammal species identified

during the reconnaissance survey (Table 3.4.4-1). None of these species are listed under the federal or California Endangered Species Acts.

Table 3.4.4-1
List of Plant and Wildlife Species Observed on the Project Site

Scientific name	Common name
Plants	
Acmispon americanus	American bird's foot trefoil
Ambrosia acanthicarpa	annual burweed
Amsinckia menziesii	fiddleneck
Avena sp.	wild oat
Bromus diandrus	ripgut brome
Centromadia pungens	spikeweed
Cirsium vulgare	bull thistle
Convolvulus arvensis	field bindweed
Croton setiger	doveweed
Cynodon dactylon	Bermuda grass
Datura wrightii	Jimson weed
Erigeron canadensis	horseweed
Erodium cicutarium	redstem filaree
Eucalyptus sp.	eucalyptus
Euphorbia sp.	spurge
Heterotheca grandiflora	telegraph weed
Hordeum murinum	foxtail barley
Lactuca serriola	prickly lettuce
Malva parviflora	cheeseweed
Nerium oleander	oleander
Populus fremontii	cottonwood
Raphanus raphanistrum	wild radish
Sisymbrium irio	London rocket
Tribulus terrestris	puncture vine
Washingtonia robusta	Mexican fan palm
	various ornamental
Wildlife	
Calypte anna	Anna's hummingbird
Canis familiaris	domestic dog
Corvus brachyrhynchos	American crow
Euphagus cyanocephalus	Brewer's blackbird
Haemhorous mexicanus	house finch
Larus californicus	California gull
Mimus polyglottos	northern mockingbird
Otospermophilus beecheyi	California ground squirrel
Passer domesticus	house sparrow
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe

Scientific name	Common name
Zenaida macroura	mourning dove
Calypte anna	Anna's hummingbird
Canis familiaris	domestic dog
Corvus brachyrhynchos	American crow
Euphagus cyanocephalus	Brewer's blackbird

Impact Analysis

This section describes the results of the database searches and, using conditions present on the Project site as determined by the reconnaissance survey, provides an analysis of Project impacts on each of six biological evaluation criteria. Each of the biological evaluation criteria were determined to be in one of three categories: less-than-significant impacts with mitigation incorporated, less-than-significant impacts, and no impacts. Each of the evaluation criteria are discussed below and mitigation measures are provided as warranted to, when implemented, reduce impacts to below significant levels.

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 California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The literature and database search indicated that there is potential for several special-status species to be present on or in the vicinity of the Project site. An evaluation of each of the potential special-status species, which included habitat requirements, likelihood of required habitat to occur within the Project vicinity, and a comparison to the CNDDB records was conducted. The results of this evaluation concluded that 16 plant species and two (2) wildlife species with special status have a reasonable potential to occur on or near the Project site.

Special-Status Species

Special-Status Plant Species

Based on the database queries, there are 16 special-status plant species that have the potential to occur within the subject quadrangle and eight surrounding quadrangles: Hoover's calycadenia (*Calycadenia hooveri*), bristly sedge (*Carex comosa*), succulent owl's clover (*Castilleja campestris* var*. succulenta*), California jewelflower (*Caulanthus californicus*), dwarf downingia (*Downingia pusilla*), spiny-sepaled button celery (*Eryngium spinosepalum*), California satintail (*Imperata brevifolia*), forked hareleaf (*Lagophylla dichotoma*), Madera leptosiphon (*Leptosiphon serrulatus*), pincushion navarretia (*Navarretia myersii* ssp*. myersii*), San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*), hairy Orcutt grass (*Orcuttia pilosa*), Hartweg's golden sunburst (*Pseudobahia bahiifolia*), San Joaquin adobe sunburst (*Pseudobahia peirsonii*), Sanford's arrowhead (*Sagitarria sanfordii*), and Greene's tuctoria (*Tuctoria greenei*).

None of these special-status plant species were observed during the survey. Approximately 15 acres of the Project site currently supports non-native annual

grassland, which appears to be routinely maintained through disking and historically farmed with row crops. The residence and its storage sheds occupy the remaining 5 acres of the Project site and consist of compacted ground with ornamental and non-native plant species. The 250-foot buffer surrounding the Project has also been disturbed by urban and agricultural development.

The non-native grassland habitat within the Survey Area is not suitable for any of the special-status species listed above because it is routinely maintained, previously disturbed by farming practices for many years, and because most native species cannot compete with invasive grass species such as those observed during the survey (foxtail barley, wild oat, ripgut brome (*Bromus diandrus*).

Areas within the Survey Area that are developed for urban use are permanently disturbed by paved surfaces, structures, landscaping practices, and other anthropogenic activities, which would also preclude the establishment and growth of the special-status species listed above.

No part of the Survey Area would support any special-status plant species identified from the database queries, so development of the Project would not impact any of these species. Thus, no protective measures for special-status plant species are warranted.

Sensitive Wildlife Species

Based on the database queries there were 34 special-status wildlife species that were identified as having a potential to occur within the subject quadrangle and eight surrounding quadrangles. Thirty-two (32) of these species were eliminated from consideration due to the lack of suitable habitat.

California tiger salamander (*Ambystoma californiense*), western spadefoot (*Spea hammondii*), California red-legged frog (*Rana draytonii*), vernal pool fairy shrimp (*Branchinecta lynchi*), conservancy fairy shrimp (*Branchinecta conservatio*), hardhead (*Mylopharadon conocephalus*), delta smelt (*Hypomesus transpacificus*), western pond turtle (*Emys marmorata*), and giant garter snake (*Thamnophis gigas*) are dependent upon water bodies and/or vernal pools, which are not present within the Survey Area. There were no CNDDB records for California red-legged frog, conservancy shrimp, delta smelt, or giant garter snake resulting from the 9-quad database query.

Pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), and hoary bat (*Lasiurus cinereus*) roost in dense foliage of medium to large trees, in cliffs and rock crevices, and/or in buildings and bridges, depending on the species. None of these features were present on or near the Project.

There are no elderberry shrubs (*Sambucus* sp.) in the Survey Area, so valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) would not be present.

Monarch butterflies (*Danaus plexxipus*) require dense groves of trees to roost in during their migration, which are not present on or near the Project. The 9-quad CNDDB query did not produce any results for the species.

There were no preferred plant species for forage and no small mammal burrows for nesting for the Crotch bumblebee (*Bombus crotchii*), so this species is not expected to be present.

There is no suitable nesting or foraging habitat for tricolored blackbird (*Agelaius tricolor*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), black-crowned night heron (*Nycticorax nycticorax*), or double-crested cormorant (*Phalacrocorax auratus*), which require wetlands, marshes, coastal waters, or other water features to provide habitat for either riparian obligate species western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) and least Bell's vireo (*Vireo bellii pusillus*. The Project supports annual grassland that is suitable for burrowing owl (*Athene cunicularia*) and California horned lark (*Eremophila alpestris actia*), but because the area is small and isolated from contiguous habitat by urban development, and because there are no suitable burrows present for the burrowing owl, these species are not expected to occur on the Project site.

The Project site has been repeatedly disturbed, is isolated from any natural habitat, and does not contain small mammal burrows, and thus is not suitable for blunt-nosed leopard lizard (*Gambelia sila*), California glossy snake (*Arizona elegans occidentalis*), Northern California legless lizard (*Anniella pulchra*), or coast horned lizard (*Phrynosoma blainvillii*). There were no CNDDB occurrences for blunt-nosed leopard lizard resulting from the 9-quad query. No small mammal burrows were observed during the survey, the Project site is not contiguous with any natural habitat, and the non-native grassland habitat that is present is only marginally acceptable for Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin pocket mouse (*Perognathus inornatus*), and American badger (*Taxidea taxus*).

Only two species resulting from the database queries have the potential to occur within the Project site and/or vicinity: Swainson's hawk (*Buteo swainsonsi*) and San Joaquin kit fox (*Vulpes macrotis mutica*). Nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) may also be present during the breeding season.

San Joaquin Kit Fox

San Joaquin kit fox, a federally Endangered and State Threatened species, has a low potential to occur on the Project site and the surrounding area. The nearest CNDDB occurrence is approximately 9.5 miles southeast of the Project site, where an individual was observed in the town of Sanger in the 10980s (EONDX 70606). The non-native grassland present in the Survey Area provides marginal habitat and a limited prey base, and it is unlikely that a San Joaquin kit fox would become an established resident in the Project site. However, San Joaquin kit foxes are known to adapt well to urban areas and scavenge anthropogenic food items, which may be available in the residential and commercial development surrounding the Project.

San Joaquin kit foxes are known to be in the region in low densities and to adapt well to human presence, so the species could be present on or near the Project as a

transient at any time. Because the Project supports only marginal habitat and is a small area, development of the Project area would not result in a significant loss of habitat for the species. If the species were to be present during construction activities individual San Joaquin kit foxes could be injured or killed, or normal reproductive or foraging behaviors could be affected.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a State Threatened species and has potential to occur in the habitat around the Project site but is unlikely to nest on the Project site. Swainson's hawks forage in agricultural fields, shrublands, and grasslands, and typically nest in scattered trees or small groves. There is one CNDDB record of this species within 10 miles of the Project site, which is from 1956 and encompasses a 5-mile radius area that includes most of the City of Fresno (EONDX 91594). Despite limited CNDDB documentation, the species is known to occur in the region.

The Project footprint contains very marginal foraging habitat for Swainson's hawk and there is a limited prey base for the species in the Survey Area. However, there are suitably large trees for nesting in the residential and commercial areas surrounding the Project, and there is suitable foraging habitat approximately 4 miles southwest of the Project site, where there are active agricultural fields and other open lands Although the species is very unlikely to forage or nest on the Project site, there is potential for it to nest in the immediate vicinity. If the species were to nest within 0.5 mile of the Project site during construction activities, normal reproductive or foraging behaviors could be affected.

Nesting Migratory Birds

Migratory bird species are protected under the federal MBTA. No active or inactive bird nests were observed during the survey, which was conducted outside of the typical avian breeding season (February 1 – September 15). The Project and surrounding vicinity provide suitable nesting habitat for a variety of bird species which may nest in tree branches and cavities, shrubs, man-made structures, and directly on the ground. If nesting migratory birds are in the vicinity of the Project during construction activities, individual birds could be injured or killed, or normal reproductive or foraging behaviors could be affected.

Conclusion

The Project site occurs within urban development in the City of Fresno and has been repeatedly and/or permanently disturbed for many years. The Survey Area supports mostly non-native grasses and other ruderal or ornamental species and is predominately surrounded by residential and commercial development.

No special-status plant or wildlife species or their sign were observed during the survey.

It is very unlikely that any special-status plant species occur in the Project area or in the vicinity due to historic agricultural development, the current vegetation composition, and maintenance regimen, and permanent residential development. No minimization, avoidance, or mitigation measures related to special-status plants are

warranted. No Impacts to Swainson's hawks or other nesting raptors or avian species will occur through Implementation of Mitigation Measure MM BIO-1.1through BIO-1.4 of GP PEIR SCH No. 20190500005.

Implementation of all biological resource-related mitigation measures of the GP PEIR SCH No. 20190500005 for the Fresno General Plan have been applied to the proposed Project. Therefore, no actions or activities resulting from the implementation of the proposed Project would have the potential to affect floral, or faunal species or their habitat. Therefore, impacts to biological resources would be *less than significant with mitigation incorporated.*

Mitigation Measures

The proposed project shall implement and incorporate the biological resource-related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist datedSeptember 2021.

PEIR MM BIO-1.1: Construction of a proposed project shall avoid, where possible, vegetation communities that provide suitable habitat for a special-status species known to occur within the Planning Area. If construction within a potentially suitable habitat must occur, the presence/absence of any special-status plant or wildlife species must be determined prior to construction to determine if the habitat supports any special-status species. If a special-status species are determined to occupy any portion of a project site, avoidance and minimization measures shall be incorporated into the construction phase of a project to avoid direct or incidental take of a listed species to the greatest extent feasible. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects, and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

PEIR MM BIO-1.2: Direct or incidental take of any state or federally listed species shall be avoided to the greatest extent feasible. If the construction of a proposed project will result in the direct or incidental take of a listed species, consultation with the resources agencies and/or additional permitting may be required. Agency consultation through the CDFW 2081 and USFWS Section 7 or Section 10 permitting processes shall take place prior to any action that may result in the direct or incidental take of a listed species. Specific mitigation measures for direct or incidental impacts to special-status species shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

PEIR MM BIO-1.3: Development within the Planning Area shall avoid, where possible, special-status natural communities and vegetation communities that provide suitable habitat for special-status species. If a proposed project will result in the loss of a special-status natural community or suitable habitat for special-status species, compensatory

habitat-based mitigation is required under CEQA and CESA. Mitigation shall consist of preserving on-site habitat, restoring similar habitat or purchasing off-site credits from an approved mitigation bank. Compensatory mitigation shall be determined through consultation with the City and/or resource agencies. An appropriate mitigation strategy and ratio shall be agreed upon by the developer and lead agency to reduce project impacts to special-status natural communities to a less than significant level. Agreed-upon mitigation ratios shall depend on the quality of the habitat and the presence/absence of a special-status species. Specific mitigation measures for direct or incidental impacts to special-status natural communities and vegetation communities shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

PEIR MM BIO-1.4: Proposed projects within the Planning Area should avoid, if possible, construction within the general nesting season of February through August for avian species protected under Fish and Game Code 3500 and the Migratory Bird Treaty Act (MBTA), if it is determined that suitable nesting habitat occurs on a project site. If construction cannot avoid the nesting season, a pre-construction clearance survey shall be conducted by a qualified biologist to determine if any nesting birds or nesting activity is observed on or within 500-feet of a project site. If an active nest is observed during the survey, a biological monitor shall be on-site to ensure that no proposed project activities would impact the active nest. A suitable buffer shall be established around the active nest until the nestlings have fledged and the nest is no longer active. Project activities may continue in the vicinity of the nest only at the discretion of the biological monitor. Prior to the commencement of grading activities and issuance of any building permits, the Director of the City of Fresno Planning and Development Department, or designee, shall verify that all proposed project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503, that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field. Specific mitigation measures for direct or incidental impacts to avian species protected under Fish and Game Code 3500 and the Migratory Bird Treaty Act (MBTA) shall be determined on a case-by-case basis through agency consultation during the review process for discretionary projects and shall be consistent with survey protocols and mitigations measures recommended by the agency at the time of consultation.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The nine-quadrangle CNDDB query yielded four (4) sensitive natural communities: Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, Great Valley Mixed Riparian Forest, and Sycamore Alluvial Woodland.

The Project is not located near any riverine or floodplain area that would support riparian species. The Project has been repeatedly disturbed for agricultural use and would not support vernal pools. Due to historical and current disturbance, these sensitive natural communities are not expected to occur. The Project's impacts would be *less than significant.*

Mitigation Measures

No mitigation is required.

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?

The United States Army Corps of Engineers (USACE) has regulatory authority over the Clean Water Act (CWA), as provided for by the EPA. The USACE has established specific criteria for the determination of wetlands based upon the presence of wetland hydrology, hydric soils, and hydrophilic vegetation. There are no federally protected wetlands or vernal pools that occur within the Project.

Wetlands, streams, reservoirs, sloughs, and ponds typically meet the criteria for federal jurisdiction under Section 404 of the CWA and state jurisdiction under the Porter-Cologne Water Quality Control Act. Streams and ponds typically meet the criteria for State jurisdiction under Section 1602 of the California Fish and Game Code. There is a freshwater pond 0.3 miles southwest of the Project area, but it will not be impacted by Project activities.

The National Wetland Inventory identified a "riverine/canal ditch" near the proposed Project. However, that feature was not found to be present during the reconnaissance survey, apparently due to previous residential development. The biological survey did not identify any other features on or near the project that would meet the criteria for either federal or State jurisdiction. Accordingly, there are no wetlands or Waters of the U.S. occurring on the Project site. There would be no impact to federally or State protected wetlands or waterways as a result of the proposed project. Therefore, the Project would have *no impact.*

Mitigation Measures

No mitigation is required.

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?

Wildlife migratory corridors are described as a narrow stretch of land that connects two open pieces of habitat that would otherwise be unconnected. These routes provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat and are important elements of resident species' home ranges.

The Project falls within the Pacific Flyway, a significant migratory route encompassing the west coast of North America, but the Project represents a very small land acreage within this territory and does not support any significant migratory stopover habitat. The proposed Project and surrounding area does not occur within a known terrestrial migration route, significant wildlife corridor, or linkage area as identified by the Essential Habitat Connectivity Project (Spencer, W.D., et al, 2010). The survey conducted for the Project did not provide evidence of a wildlife nursery or important migratory habitat being present on the Project site. Migratory birds and raptors could use habitat on and near the Project for foraging and/or as stopover sites during migrations or movement between local areas.

The Project is a relatively small, isolated, undeveloped area within the mainly developed City of Fresno. Development of the Project would not restrict, eliminate, or significantly alter a wildlife movement corridor, wildlife core area, or Essential Habitat Connectivity area, either during construction or after the Project has been constructed. Project construction will not substantially interfere with wildlife movements or reduce breeding opportunities.

The proposed Project would not interfere 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. Therefore, the Project's impacts would be *less than significant.*

Mitigation Measures

No mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed Project is subject to provisions of the City's Municipal Code regarding trees on public property (Article 3 of Section 13 of the City of Fresno Municipal Code), and as proposed does not conflict with any of the existing ordinances. There are a few trees associated with the existing dwelling that will be removed. These are ornamental trees and not native species. No trees will be removed as a result of the Project. . As a result, no impact would occur related to local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. In

addition, the Project will comply with the policies and goals of the General Plan pertaining to protecting biological resources. Therefore, the proposed Project would have *less than significant impacts.*

Mitigation Measures

No mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is not located within any Natural Community Conservation Plan or any other local, regional, or State Conservation Plan. With mitigation, the proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

Mitigation Measures

No mitigation is required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

DISCUSSION

A Cultural Resources Technical Memo that outlines the results of the Records Search is included as Appendix C of this document.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

There are no structures that exist within the Project or the surrounding area that are listed in the National or Local Register of Historic Places, and the subject site is not within a designated historic district. There are no known archaeological l resources that exist within the Project area.

There is no evidence that cultural resources of any type (including historical or archaeological) exist on the subject property. Past record searches for the region have not revealed the likelihood of cultural resources on the subject property or in its immediate vicinity. Therefore, it is not expected that the proposed Project may impact cultural resources. It should be noted however, that lack of surface evidence of historical resources does not preclude the subsurface existence of archaeological resources. It should also be noted that lack of surface evidence of historical or archaeological resources does not preclude the discovery of subsurface resources during construction. In the event historical or archaeological resources are found, construction will halt, and a qualified historical resources specialist will be contacted and will make recommendations to the City.

It should be noted however, that lack of surface evidence of historical resources does not preclude the subsurface existence of archaeological resources. Furthermore, previously unknown or undiscovered human remains could be disturbed during Project construction. However, during excavation activities, there is always the potential to discover archaeological or historical cultural resources. In the event cultural resources are found, construction will halt, and a qualified archaeologist or cultural resources specialist will be contacted and will make recommendations to the City. Implementation of the Fresno General Plan GP PEIR Mitigation Measure CUL-1.1, CUL 1.2 and CUL 2 will result in a *less than significant impact with mitigation incorporated*.

Mitigation Measures

The proposed project shall implement and incorporate the cultural resource-related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated September 2021.

PEIR MM CUL-1.1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find, and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to the excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance. If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

PEIR MM CUL-1.2: Prior to approval of any discretionary project that could result in an adverse change to a potentially historical and/or cultural resource, the City shall require a site-specific evaluation of historical and/or cultural resources by a professional who meets the Secretary of Interior's Qualifications. The evaluation shall provide recommendations to mitigate potential impacts to historical and/or cultural resources and shall be approved by the Directory of Planning and Development

PEIR MM CUL-2: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within

previously undisturbed soils, a field survey and literature search for prehistoric archaeological resources shall be conducted. The following procedures shall be followed.

- If prehistoric resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that buried prehistoric archaeological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find, and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to the excavation of the finds and evaluation of the finds in accordance with CEQA Guidelines Section 15064.5. If the resources are determined to be unique prehistoric archaeological resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any prehistoric archaeological artifacts recovered as a result of mitigation shall be provided to a City approved institution or person who is capable of pro viding long-term preservation to allow future scientific study.

- If prehistoric resources are found during the field survey or literature review, the resources shall be inventoried using appropriate State record forms and submit the forms to the Southern San Joaquin Valley Information Center. The resources shall be evaluated for significance. If the resources are found to be significant, measures shall be identified by the qualified archaeologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include an archaeological monitor. The monitoring period shall be determined by the qualified archaeologist. If additional prehistoric archaeological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

See Impact V (a) above.

There are no known archaeological resources that exist within the Project site. A Sacred Land File search conducted by the Native American Heritage Commission resulted in negative results for tribal cultural sites. There is no evidence that cultural

resources of any type (including historical and archaeological) exist on the Project site. Nevertheless, there is a possibility that an unknown buried resource may exist in the area and be obscured by vegetation, fill, or other historical activities, leaving no surface evidence. Implementation of the Fresno General Plan GP PEIR Mitigation Measure CUL-1.1, CUL-1.2 and CUL-2 will result in a *less than significant impact with mitigation incorporated*.

Mitigation Measures

Implementation of MM CUL-1.1, CUL 1.2 and CUL 2..

c) Disturb any human remains, including those interred outside of formal cemeteries?

Although cultural resources are not anticipated onsite, like most projects in the state, the possibility exists that these resources could be found during construction; therefore, mitigation would be required to reduce this impact to a less than significant level. Therefore, due to the ground-disturbing activities that will occur as a result of the Project, the measures within the GP PEIR SCH No. 20190500005 for the Fresno General Plan, PEIR Mitigation Monitoring and Reporting Program to address archaeological resources and human remains will be employed to guarantee that should archaeological and/or historic artifacts be encountered during Project excavations, then work shall stop immediately; and, that qualified professionals in the respective field are contacted and consulted in order to ensure that the activities of the proposed Project will not involve physical demolition, destruction, relocation, or alteration of historical, archaeological, or paleontological resources. In conclusion, with the GP PEIR Mitigation Measure CUL-3 incorporated, the proposed Project will not result in any cultural resource impacts and impacts would be *less than significant with mitigation incorporated.*

Mitigation Measures

PEIR MM CUL-3: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall, within 24 hours, notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

The following analysis is based on the Small Project Analysis Level Assessment (SPAL) (Trinity Consultants, 2022) prepared for the Project (Appendix A) and available energy resource consumption data.

DISCUSSION

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed Project would involve the use of energy during construction and operation. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, and machinery. Long-term operation of the proposed includes electricity and natural gas service to power internal and exterior building lighting and heating and cooling systems. In addition, the increase in vehicle trips associated with the Project would increase fuel consumption within the City.

Electricity service for the proposed project would be provided by Pacific Gas and Electric Company (PG&E). The PG&E and State of California 2019 power mix is detailed in Table 3.4.6-1. Energy usage by sector is outlined in Table 3.4.6-2.

Table 3.4.6-1
PG&E and the State of California 2019 Power Mix

Energy Resource	PG&E Power Mix	California-Wide Power Mix
Eligible Renewable	29%	32%
Biomass & Biowaste	*3%*	*2%*
Geothermal	*2%*	*5%*
Small Hydroelectric	*2%*	*2%*
Solar	*12%*	*12%*
Wind	*9%*	*10%*
Coal	0%	3%
Large Hydroelectric	27%	15%
Natural Gas	0%	34%
Nuclear	44%	9%
Other	0%	0%
Unspecified [1]	0%	7%
Total	**100%**	**100%**

Source: (PG&E, 2020)
[1] Electricity from transactions that are not traceable to specific generation source

Table 3.4.6-2
Electricity Consumption in PG&E Service Area (2020)

Agricultural and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Streetlight	Usage
6,638	26,247	3,949	9,814	1,748	29,834	290	78,519

Source: (California Energy Commission, 2020)
Note: All usage expressed in millions of kWh (GWh).

PG&E also maintains approximately 42,141 miles of gas distribution pipelines and 6,438 miles of gas transmission pipelines (PG&E, 2021). Table 3.4.6-3 below presents natural gas consumption by sector for PG&E in 2019.

Table 3.4.6-3
Natural Gas Consumption in PG&E Service Territory (2020)

Agricultural and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
44	797	51	1,585	140	1,891	4,509

Source: Source: (California Energy Commission, 2020)
Note: All usage expressed in Millions of Therms

The proposed Project's estimated energy usage calculated using CalEEMod and shown in the CalEEMod output files in Appendix A is summarized and compared to

statewide usage in Table 3.4.6-4. Estimated motor vehicle fuel use is further detailed in Table 3.4.6-5. As shown in 3.4.6-4, the proposed Project would make a minimal contribution to state-wide energy consumption in these categories.

Table 3.4.6-4
Estimated Project Related Energy Usage

Form of Energy	Units	Annual Project-Related Energy Use	Annual State-Wide Energy Use	Project % of Statewide Energy Use
Electricity	kWh/year	717,116	272,576,000,000 (California Energy Commission, 2020)	0.0002%
Natural Gas	kBTU/year	2,410,880	189,082,861,453 (California Energy Commission, 2020)	0.00001%
Motor Vehicle Fuels	Gallons	243,182	11,517,369,224 (California Department of Tax and Fee Administration, 2021)	0.00002%

Table 3.4.6-5
Estimated Project Related Annual Motor Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Annual Vehicle Miles Traveled	Average Fuel Economy (miles/gallon) (U.S. Department of Energy, 2020)	Total Annual Fuel Consumption (gallons)
Passenger Cars	42%	1,300,404	24.2	53,736
Light/Medium Trucks	29%	897,898	17.5	51,308
Heavy Trucks/Other	29%	897,898	6.5	138,138
Total	**100%**	**3,096,200**	**-**	**243,182**

The construction and the operation of the Project would comply with State and local plans and regulations. The proposed Project would be in compliance with all applicable federal, State, and local regulations regulating energy usage. The Project will comply with Title 24 Energy Efficiency Standards and CalGreen Code requirements for solar-ready roofs, electric vehicle charging, and water conservation. The Project would comply with the SJVAPCD requirements regarding the limitation of vehicle idling, and the use of fuel-efficient vehicles and equipment, to the extent feasible. Energy-saving strategies will be implemented where possible to further reduce the project's energy consumption during the construction phase. Strategies being implemented include those recommended by the California Air Resources Board (CARB) that may reduce both the Project's energy consumption, including diesel anti-idling measures, light-duty vehicle technology, usage of alternative fuels such as biodiesel blends and ethanol, and heavy-duty vehicle design measures to reduce energy consumption. As such, impacts would be *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?

At the local level, there are several policies contained in the Fresno General Plan Program Environmental Impact Report related to energy, such as:

Policy RC-8-b: Energy Reduction Targets. Strive to reduce per capita residential electricity use to 1,800 kWh per year and non-residential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design, and operation standards, promoting alternative energy sources, and cost-effective savings.

Policy RC-8-e: Energy Use Disclosure. Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.

Policy RC-8-h: Solar Assistance. Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kV) of units that can be so approved.

Policy RC-8-i: Renewable Target. Adopt and implement a program to increase the use of renewable energy to meet a given percentage of the city's peak electrical load within a given time frame.

The Project would advance the implementation of these policies by providing a new source of renewable energy. The State's primary mandate for renewable energy is embodied by AB 32 – The California Global Warming Solutions Act, which is implemented through its Scoping Plan. The 2017 Climate Change Scoping Plan adopted by the California Air Resources Board outlines the strategies for achieving the emissions reduction target mandated in AB 32. One of the key strategies is the Renewables Portfolio Standard (RPS), which now requires all electric utilities in California to include a minimum of 60 percent renewable generation sources in their overall energy mix by 2030.

The Project will help increase the proportion of renewables in the Statewide energy portfolio, thereby furthering the implementation of RPS by the target year instead of obstructing its implementation.

The proposed Project would be in compliance with all applicable federal, State, and local regulations regulating energy usage, as shown in Table 6-1. The Project will comply with Title 24 Energy Efficiency Standards and CalGreen Code requirements for solar ready roofs, electric vehicle charging, and water conservation. The Project also includes the installation of solar panels on each home, to offset the use of electricity that would be generated by non-renewable energy sources such as coal-fired power plants.

The addition of the Project's solar generation to the State's electrical supply will help facilitate the retirement of existing older fossil-fueled generation plants, thereby avoiding or offsetting those sources of GHG emissions. The proposed Project would comply with all existing energy standards and would not result in significant adverse impacts on energy resources. For these reasons, the proposed Project would not be expected to cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the thresholds as described by Appendix F of the CEQA Guidelines. There would be *a less than significant impact.*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

A Geotechnical Engineering Investigation was prepared for this site (Krazan & Associates, Inc., 2021a) and is attached as Appendix D.

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.

Fresno has no known active earthquake faults and is not in any Alquist-Priolo Special Studies Zones. The immediate Fresno area has extremely low seismic activity levels, although shaking may be felt from earthquakes whose epicenters lie to the east, west, and south. Known major faults are over 50 miles distant and include the San Andreas Fault, Coalinga area blind thrust fault(s), and the Long Valley, Owens Valley, and White Wolf/Tehachapi fault systems. The most serious threat to Fresno from a major earthquake in the Eastern Sierra would be flooding that could be caused by damage to dams on the upper reaches of the San Joaquin River.

Fresno is classified by the State as being in a moderate seismic risk zone, Category “C” or “D,” depending on the soils underlying the specific location being categorized and that location’s proximity to the nearest known fault lines. All new structures are required to conform to current seismic protection standards in the California Building Code. No adverse environmental effects related to seismology or known fault lines are expected as a result of this Project.

Further, according to the Fault Rupture Zones Map prepared by the California Department of Conservation in 2018, the City of Fresno GP PEIR Planning Area is not located within a Fault-Rupture Hazard Area. Moreover, no active faults have been identified within the Planning Area.

Therefore, because no active faults occur within the Planning Area, impacts associated with fault rupture would be *less than significant*.

Mitigation Measures

No mitigation is required.

ii. Strong seismic ground shaking?

According to the Fresno County Multi-Hazard Mitigation Plan, the Project site is located in an area of relatively low seismic activity. The proposed Project does not include any of the construction of habitable structures. However, the GP PEIR indicates that projects within the Planning Area would be designed to withstand strong ground shaking because all built projects are required to comply with the CBC to minimize the potential effects of ground shaking and other seismic activity. To reduce ground-shaking impacts, the approved General Plan also includes Objective HS-D.3 requires require that a soils engineering and geologic-seismic analysis be prepared by a California-registered engineer or engineering geologist prior to permitting development and Objective HS-D.4 requires all structures to comply with Title 24 codes and regulations related to geologic-seismic events. .

With the implementation of the above-referenced objective and policies as well as adherence to Municipal Code and other applicable regulations, development in accordance with the approved General Plan would reduce potential seismic ground shaking impacts to a less-than-significant level. Compliance with local and State building codes would ensure Project structures and personnel present during the construction would not be exposed to substantial adverse effects, including the risk of loss, injury, or death resulting from strong seismic ground shaking. Therefore, implementation of these building code requirements and local agency enforcement would reduce impacts from ground shaking to *less than significant* levels.

Mitigation Measures

No mitigation is required.

iii. Seismic-related ground failure, including liquefaction?

The City is within an area identified as having a low risk for liquefaction (County of Fresno, 2018). Liquefaction takes place when the water table is less then 60 feet below grade, and when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. The site is in an area with a low potential for seismic events, and the groundwater in the Project area occurs below 60 feet.

Typically, sands were considered to be the only type of soil susceptible to liquefaction, but liquefaction has also been observed in gravel and silt. The Project soils are categorized as being clayey sand and sandy clay. It is recommended that the upper 12 inches of soil consist of engineered fill to minimize minor soil movement (Krazan & Associates, Inc., 2021a)

Based on this analysis, the Project site are not susceptible to liquefaction, there is a *less than significant impact.*

Mitigation Measures

No mitigation is required.

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iv. Landslides?

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e., cut and fill). The Project site is relatively flat; therefore, the potential for a landslide in the Project site is essentially non-existent. Because the Project is within an area with a relatively flat topography, the Project will not have any environmental impacts relating to landslides. Therefore, there would be *no impact*.

Mitigation Measures

No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Because the site is relatively flat, minimal soil will be removed from the Project site during construction.

Development of the Project site would require typical site preparation activities such as grading and trenching which may result in the potential for short term soil disturbance or erosion impacts. Construction would also involve the use of water that may cause further soil disturbance. Such impacts would be addressed through compliance with regulations set by the State Water Resources Control Board (SWRCB). Namely, the SWRCB requires sites larger than one (1) acre to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (i.e., General Permit Order No. 2012-0006-DWQ). The General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). The SWPPP estimates the sediment risk

associated with construction activities and includes best management practices (BMP) to control erosion.

Because Project impacts related to erosion would be temporary and limited to construction and required BMPs would prevent significant impacts related to erosion, the Project impacts will remain less than significant with applicable measures incorporated as required by the City of Fresno municipal code. Based on this analysis, there is a *less than significant impact*

Mitigation Measures

No mitigation is 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?

Soil conditions were analyzed and determined to be disturbed, have low strength characteristics and highly compressible when saturated. As such, the soils are recommended to be recompacted. Following these recommendations, the site soils would be considered stable in that there is not a potential of on or offsite landslides, lateral spreading, subsidence or collapse. All structures would be subject to all International Building Codes and Title 24 codes related to earthquake construction standards, including those relating to soil characteristics. Development of the property requires compliance with grading and drainage standards of the City of Fresno. Therefore, there would be *a less than significant impact.*

Mitigation Measures

No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

See discussion under VII.(a)(i) through (a)(iv),(b) and (c).

Expansive soils contain large amounts of clay, which absorb water and cause the soil to increase in volume. Conversely, the surface soils on the site have a loose consistency.
There are no geologic hazards or unstable soil conditions known to exist on the site. The existing topography is relatively flat with no apparent unique or significant

landforms such as vernal pools. Development of the property requires compliance with grading and drainage standards of the City of Fresno. A civil engineer or soils engineer registered in this State has completed a Soils Investigation and Evaluation Report. The investigation addressed the detail of the configuration, location, type of loading of the proposed structures and a drainage plan will be prepared prior to the start of construction.

The proposed Project would not result in any expansive soils environmental impacts therefore the Project would have a *less than significant* impact.

Mitigation Measures

No mitigation is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed Project would not include the use of septic tanks or any other alternative wastewater disposal systems. The dwelling units will be required to tie into the existing sewer services. Therefore, there would be *no impact*.

Mitigation Measures

No mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As noted previously, there are no known paleontological resources that exist within the Project site. Nevertheless, previously unknown paleontological resources could be disturbed during Project construction. Therefore, due to the ground-disturbing activities that will occur as a result of the Project, the measures within the GP PEIR related to paleontological resources will be employed to guarantee that should animal fossil material be encountered during Project excavations, then work shall stop immediately; and, that qualified professionals in the respective field are contacted and consulted in order to ensure that the activities of the proposed Project will not involve physical demolition, destruction, relocation, or alteration paleontological resources. Mitigation Measure GEO-6.1 will reduce the impacts to paleontological resources to a *less than significant impact with mitigation incorporated.*

Mitigation Measures

The proposed project shall implement and incorporate the geology and soils related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated September 2021.

PEIR MM GEO-6.1: Subsequent to a preliminary City review of the Project grading plans, if there is evidence that a Project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed:

If unique paleontological/geological resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. The qualified paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

SETTING

Analysis of Greenhouse Gases is based on the Small Project Analysis Level Assessment (SPAL) prepared for the Project (Trinity Consultants, 2022), which is included as Appendix A of this document.

DISCUSSION

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO2e). Although construction of the proposed project would result in temporary emissions of GHGs, the Project as a whole is not expected to generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment. The project's greenhouse gas (GHG) emissions are primarily from mobile source activities and are shown in Table 8-1.

The SJVAPCD has not adopted a threshold for GHG impacts so they have used the South Coast Air Quality Management District's (SCAQMD) threshold of 10,000 MTCO2eq./year for GHG for construction emissions amortized over a 30-year project lifetime, plus annual operation emissions. Though the Project is under SJVAPCD jurisdiction, the SCAQMD GHG threshold provides some perspective on the GHG emissions generated by the Project. The amount of CO_2e emissions that would be generated by the Project (1,194.46 metric tons-per-year) is so small in relation to the

California CO_2e estimates for 2020 (596 million CO_2e) that it's not possible for the contribution of the Project to be cumulatively considerable (Trinity Consultants, 2022).

Table 8-1
Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
2023 Project Operations	1,147.15	1.20	0.06	1,194.46
2005 BAU	1,802.18	1.34	0.19	1,890.78
BAU less Project emissions				36.8%

Additionally, the Project's GHG emissions are less than the 2005 business-as-usual emissions for the Project by 1,194 metric tons-per-year of CO_2e, which is a 36.8% reduction. The amount of CO2 that would be generated by the Project is so small in relation to the California CO2 equivalent estimates for 2020 (596 million metric tons CO2e) that it's not possible for the contribution of the project to be cumulatively considerable (Trinity Consultants, 2022) Therefore, the Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, the Project would have a less than significant impact.

The General Plan and GP PEIR rely upon the Recirculated Greenhouse Gas Reduction Plan Update that provides a comprehensive assessment of the benefits of city policies and proposed code changes, existing plans, programs, and initiatives that reduce greenhouse gas emissions. The Recirculated Plan provides goals and supporting measures to reflect and ensure compliance with changes in the local and State policies while ensuring it encourages economic growth and keeps the City economically competitive while achieving GHG reductions. The benefits of adopted regulations become flat in later years and growth starts to exceed the reductions from all regulations and measures. In conclusion, the proposed Project would be consistent with General Plan goals and policies related to GHG reduction goals. As discussed above, the proposed Project will not occur at a scale or scope with potential to contribute substantially or cumulatively to the generation of GHG emissions, either directly or indirectly, or conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. and would not result in significant greenhouse gas emission environmental impacts. Therefore, impacts of the Project would considered *less than significant.*

Mitigation Measures

No mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Fresno adopted its Recirculated GHG Reduction Plan Update (2021) as part of the General Plan Update. The Project's consistency with applicable GHG policies from the Recirculated GHG Reduction Plan policies is assessed below.

The Project is also assessed for its consistency with ARB's adopted Scoping Plans. This would be achieved with an assessment of the Project's compliance with Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update.

City of Fresno Recirculated GHG Plan Update

The Recirculated GHG Plan Update includes procedures to use when assessing the impacts of Project's requiring a general plan amendment. The following requirements apply.

1. Review General Plan policies listed in the Recirculated GHG Reduction Plan Update to identify those that apply to the project and prepare a consistency analysis for compliance with the applicable policies.
2. Ensure project is consistent with the City's Development Code as it relates to complete streets and design standards for multi-family projects.
3. Prepare a GHG technical study to quantify project emissions and emission reductions through compliance with regulations and project design features.

AB 32 Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's GHG emissions, cutting approximately 30 percent from Business As Usual (BAU) emission levels projected for 2020, or about 10 percent from 2008 levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020. As stated earlier, the ARB has updated its emission inventory forecasts and now estimates a reduction of 21.7 percent is required from BAU in 2020 to achieve AB 32 targets.

The Scoping Plan contains a variety of strategies to reduce the State's emissions. As noted, the Project is consistent with the majority of the strategies, while others are not applicable to the Project. As discussed earlier, the 2017 Scoping Plan Update

strategies primarily rely on increasing the stringency of existing regulations with which the Project would continue to comply, support through the Project's design, and implementation of the General Plan goals and policies.

In summary, the Project incorporates a number of features that would minimize GHG emissions. These features are consistent with project-level strategies identified by the ARB's Scoping Plan and the City of Fresno Recirculated GHG Reduction Plan Update (2021).

The proposed Project will not occur at a scale or scope with the potential to contribute substantially or cumulatively to the generation of GHG emissions, either directly or indirectly, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. In conclusion, the proposed Project will not result in any greenhouse gas impacts. Therefore, there would be *a less than significant impact.*

Mitigation Measures

No mitigation is required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIAL – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?			X	
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 for people residing or working in the project area?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

DISCUSSION

The discussion for this section is based on the Air Quality Impact Analysis (Trinity Consultants, 2022), and Phase I Environmental Site Assessment (ESA) completed for the Project site (Krazan & Associates, Inc., 2021b) and is attached as Appendix A and Appendix E, respectively.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Pursuant to the Fresno General Plan, hazardous materials are defined as those that no longer have a practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases). Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications and, to a limited extent, in residential areas.

Construction of the Project would involve the temporary transport and use of minor quantities of hazardous materials such as fuels, oils, lubricants, hydraulic fluids, paints, and solvents. The types and quantities of hazardous materials to be used and stored onsite would not be of a significant amount to create a reasonably foreseeable upset or accident condition. The handling and transport of all hazardous materials onsite would be performed in accordance with all applicable federal, State, and local laws and regulations.

Hazardous and non-hazardous wastes would likely be transported to and from the Project site during the construction phase of the proposed Project. Construction would involve the use of some hazardous materials, such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products, although these

materials are commonly used during construction activities and would not be disposed of on the Project site. Workers would be trained to properly identify and handle all hazardous materials. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. Any hazardous waste or debris that is generated during the construction of the proposed Project would be collected and transported away from the site and disposed of at an approved off-site landfill or other such facilities. In addition, sanitary waste generated during construction would be managed through the use of portable toilets, which would be located at reasonably accessible on-site locations. Hazardous materials such as paint, bleach, water treatment chemicals, gasoline, oil, etc., may be used during construction. These materials are stored in appropriate storage locations and containers in the manner specified by the manufacturer and disposed of in accordance with local, federal, and State regulations. No significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste during construction or operation of the new residential development would occur.

Residential construction generally uses fewer hazardous chemicals or use chemicals in relatively small quantities and concentrations as compared to commercial or industrial uses. In addition, once the Project is completed, the chemicals used would include minor quantities of pesticides/ rodenticides, fertilizers, paints, detergents, and other cleaners.

Once constructed, the use of such materials such as paint, bleach, etc., are considered common for residential developments, and would be unlikely for such materials to be stored or used in such quantities that would be considered a significant hazard. The Project itself will not generate or use hazardous materials in a manner outside health department requirements. Therefore, there would be *a less than significant impact.* .

Mitigation Measures

No mitigation measures are 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 handling on the Project site over the long-term construction of the Project may result in soil and groundwater contamination from accidental spills. Due to the large scale of the Project, each construction phase of the Project would be required to prepare and implement a SWPPP (GEO-1) as discussed in the Geology & Soils section above. The SWPPP identifies potential sources of pollution from the Project that may affect the quality of stormwater discharge and requires that best management practices (BMPs) be implemented to prevent contamination at the source. By implementing BMPs during construction activities, accidental spills of hazardous materials would be contained, and soil and groundwater contamination would be minimized or prevented. While there are no known existing hazardous

material conditions on the site and the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, portions of the Project site have been utilized for agricultural purposes, which may have utilized pesticides in association with agricultural operations and cultivation.

Additionally, there are no sites with reported releases of hazardous materials to the subsurface reported within a 4,000 foot radius of the site. The review of the State of California Regional Water Quality Control Board (RWQCB) Geotracker database available via the RWQCB Internet Website indicated that no LUST sites, land disposal sites, or military sites are listed for the subject site, the adjacent properties, or properties located within the subject site vicinity (California State Water Resources Control Board, 2022).

Review of the State of California Department of Toxic Substances Control (DTSC) Envirostor database available via the DTSC's Internet Website indicated that there is a voluntary cleanup site at 5715 East Fountain Way, Fresno, CA 93727, approximately 0.8 miles from the Project site (California Department of Toxic Substances Control, 2022). However, the site will not impact the Project's construction and operation. Envirostor does not list any other sites, including State response sites, school cleanup sites, or military or school evaluation sites are listed for the subject site or adjacent properties. Additionally, no Federal Superfund – National Priorities List (NPL) sites were determined to be located within a one-mile radius of the subject site.

Review of State of California Department of Conservation, Geological Energy Management Division (Cal GEM, formerly DOGGR) Online Mapping System (DOMS) indicated that no plugged and abandoned or producing oil wells are located on or adjacent to the subject site (California Geologic Energy Management Division, 2022).

During the Phase 1 ESA survey of the site, there was no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs), or historical RECs (HRECs); however, there are potential areas of concern (PAOCs) and site development issues. If during the construction phase of the Project there is a use of hazardous materials, the safe processing and storage of hazardous materials consistent with the California Building Code and the Uniform Fire Code will be required. Additionally, given that the project site was previously used for agricultural purposes, there is a potential of underground storage tanks (USTs) being located at the site. This would be considered a potential area of concern and would need to be properly destroyed in accordance with the State and local guidelines.

The proposed Project is not anticipated to create a significant hazard to the public or the environment. As mentioned previously in subsection a) above, the residential Project would not routinely transport, use, dispose of, or discharge hazardous materials into the environment. Therefore, the impacts would be considered *less than significant*.

Mitigation Measures

No mitigation measures are 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?

As noted previously, the closest schools are Roger S. Oraze Elementary School, approximately 0.3 miles to the southeast, Miramonte Elementary School approximately 0.4 miles to the northwest, and Gettysburg Elementary School approximately 0.7 miles to the north. Construction activities of the proposed Project will result in the temporary use of minimal hazardous materials and or substances, such as lubricant and diesel fuel during construction. Diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Exhaust from construction and related activities are expected to be minimal and not significant. BMPs will be implemented when handling any hazardous waste, materials, or substances will be employed. To reduce emissions during construction, measures such as limiting equipment idling, etc will also be employed, as noted in Impact III (a-b).

Once constructed, the proposed Project would result in emissions of Hazardous Air Pollutants (HAPs) during operation; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants was completed (Trinity Consultants, 2022). the residential Project is not expected to result in significant hazardous emissions, as noted in Impact III (c) results of the HRA prepared for the Project indicated that the maximum predicted cancer risk, chronic health hazard, and acute health hazard for residences and on-site/off-site workplaces are below the significance threshold of 10 in one million for cancer risks and 1.0 for non-cancer health risks. Therefore, the Projects health risk impacts are considered less than significant (Trinity Consultants, 2022).

The Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The Project is not a significant source of TAC emissions during construction or operation. The Project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. The Project site is not in an area known to have naturally occurring asbestos. Therefore, there would be *less than significant impacts*.

Mitigation Measures

No mitigation measures are 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?

As noted in Impact #3.4.9b, there are no known existing hazardous material conditions on the property, and the property is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and the Department of Toxic Substances Control. The Project itself will not generate or use hazardous materials in a manner outside health department requirements.

The State Water Resources Control Board website, GeoTracker, indicated that there are no Permitted Underground Storage Tanks, Leaking Underground Storage Tanks, or any other active remediation and cleanup sites on or in the vicinity (within one mile) of the Project site (California State Water Resources Control Board, 2022). However, USTs on rural or agricultural properties historically have been exempt from requirements for registration with regulatory agencies. It is, therefore, possible that subsurface features such as unregistered USTs may exist in the vicinity of the former on-site structures, which remain unknown based upon the absence of any regulatory, municipality, interview data, or other evidence indicating their presence or location. If a UST is discovered, it should be properly destroyed in accordance with local guidelines. Therefore, there would be *a less than significant impact.*

Mitigation Measures

No mitigation measures are 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 for people residing or working in the project site?

The Project site is approximately 2 miles northeast of the Fresno Yosemite International Airport and 9 miles northeast of the Fresno Chandler Executive Airport. The Project is located within the Airport Influence Area Zone 6 – Traffic Pattern Zone for the Fresno Yosemite International Airport (Fresno Council of Governments, 2018). The aircraft accident level within this zone is considered to be low. Table 3.4.9-1 below shows the Safety Criteria Matrix for this zone.

Table 3.4.9-1
Safety Criteria Matrix

	Maximum Densities/Intensities/Required Open Land			Additional Criteria	
	Dwelling Units per Acre	**Maximum Non-Residential Intensity**	**Required Open Land**	**Prohibited Uses**	**Other Development Conditions**
Zone 6	No Limit	No limit	10%	-Hazards to flight Hazards to flight include physical (e.g., tall objects), visual, and electronic forms of interference with the	-Airport disclosure notice required -Airspace review required for objects >100 feet tall

				safety of aircraft operations. Land use development, such as golf courses and certain types of crops, as outlined in FAA's Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports, that may cause the attraction of birds to increase is also prohibited. -Outdoor stadiums and similar uses with very high intensity uses	-New structures are prohibited on existing terrain that penetrates 14 CFR Part 77 surfaces -New structures require additional airspace analysis required within the 50-foot terrain penetration buffer

(Fresno Council of Governments, 2018)

The Project would comply with the requirements as listed in Table 9-1 and would not create a hazard for the people residing or working in the Project site. Therefore, there would be *a less than significant impact. .*

Mitigation Measures

No mitigation measures are required

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Fresno Fire Department Emergency Preparedness Office coordinates planning, preparedness and response/recovery efforts for the City. The design and environmental review procedures employed will ensure compliance with emergency response and evacuation plans. In addition, the site plan will be reviewed by the Fire Department and Public Works Department per standard City procedure to ensure consistency with emergency response and evacuation needs.

The Project would also comply with the appropriate local and State requirements regarding emergency response plans and access. The proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities.

The proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, there would be a less than significant impact. .

Mitigation Measures

No mitigation measures are required

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The land surrounding the Project site is primarily developed with urban, suburban uses and vacant land and is not considered to be wildlands. Additionally, Cal Fire indicates that the Project site has a low frequency, limited extent, limited magnitude, and low significance regarding wildfire threats (CAL FIRE, 2022). The structures will be built following applicable California Building Codes and standards. As such, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland. Therefore, there would be *no impact.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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 a substantial erosion or siltation on- or off-site;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
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			X	
iv) impede or redirect flood flows?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

DISCUSSION

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Adverse groundwater conditions of limited supply and compromised quality have been well documented by planning, environmental impact report and technical studies over the past 20 years including the GP PEIR No. 20190500005 for the Fresno General Plan, the GP MEIR 10130 for the 2025 Fresno General Plan, Final EIR No.10100, Final EIR No.10117 and Final EIR No. SCH 95022029 (Fresno Metropolitan Water Resource Management Plan), et al. These conditions include water quality degradation due to contamination from 1,2-dibromo-3-chloropropane (DBCP), ethylene-dibromide (EDB), trichloroethylene (TCE), 1,2,3-trichloropropane (TCP), tetrachloroethylene (PCE), 1,1-dichloroethane (DCE), nitrate, and from naturally occurring arsenic, iron, manganese, and radon concentrations; low water well yields in some parts of the City; limited aquifer storage capacity from over-utilization; limited recharge activities; and, intensive urban or semi-urban development occurring up-gradient from the Fresno Metropolitan Area.

In order to be compliant with State regulations, the Project is required to comply with State regulations adopted to reduce groundwater degradation. Construction activities including grading could temporarily increase soil erosion rates during and shortly after Project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters. As noted in Section VII. , development as a result of the proposed Project will be required to prepare a site-specific SWPPP as required by the RWQCB. The SWPPP is required to be approved by the RWQCB prior to construction that identifies project-specific best management measures that are designed to control drainage and erosion.

In addition, prior to the commencement of construction activities, the Project proponent would be required to adhere to the requirements of the City Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage onsite, thereby further preventing the potential sedimentation and subsequent degradation of stormwater.

The Project has been designed in a way that does not require a stormwater retention basin, and stormwater would either percolate into the ground or drain into the existing City stormwater system. The Project will be constructed to meet City standards related to stormwater and would not degrade surface or groundwater quality. The proposed project would not violate any water quality standards or waste discharge requirements and impacts would be *less than significant.*

Mitigation Measures

No mitigation measures are required

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Fresno is one of the largest cities in the United States that still maintains a significant reliance on groundwater as part of its public water supply portfolio. Surface water treatment and distribution has been implemented in the northeastern part of the City since 2004 and in the southeastern part of the City in 2018, but the City is still subject to an EPA Sole Source Aquifer designation. While the aquifer underlying Fresno typically exceeds a depth of 300-feet and is capacious enough to provide adequate quantities of safe drinking water to the metropolitan area well into the twenty-first century, groundwater degradation, increasingly stringent water quality regulations, and an historic trend of high consumptive use of water on a per capita basis (currently 205 gallons per day per capita), have resulted in a general decline in aquifer levels, increased cost to provide potable water, and localized water supply limitations.

The City's groundwater aquifer has been documented by the State Department of Water Resources (Bulletin 118 - Interim Update 2016) to be critically over-drafted and has been designated a high-priority basin for corrective action through the Sustainable Groundwater Management Act (SGMA).

The City of Fresno is actively addressing these issues through citywide metering and updating water use targets and the water shortage contingency plan in the City of Fresno 2020 Urban Water Management Plan (UWMP). The City has adopted the Fresno Metropolitan Water Resource Management Plan. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in

order to adequately meet existing and future needs of the metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and provide a plan of reasonably implementable measures and facilities. City water wells, pump stations, recharge facilities, water treatment, and distribution systems have been expanded incrementally to mitigate increased water demands and respond to groundwater quality challenges.

In response to the need for a comprehensive long-range water supply and distribution strategy, the Fresno General Plan recognizes regional water resource planning efforts, such as the Kings Basin's Integrated Regional Water Management Plan, the Fresno Area Regional Groundwater Management Plan, the North Kings Groundwater Sustainability Agency, City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno 2020 UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet existing and future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft, and provide a plan of reasonably implementable measures and facilities.

The 2020 City of Fresno Urban Water Management Plan, Figures ES-3 through ES-5 (incorporated by reference), illustrates the City of Fresno's goals to achieve a 'water balance' between supply and demand while decreasing reliance upon and use of groundwater. To achieve these goals, the City is implementing a host of strategies, including:

- Intentional groundwater recharge through reclamation at the City's groundwater recharge facility at Leaky Acres (located northwest of Fresno-Yosemite international Airport), refurbish existing streams and canals to increase percolation and recharge at Fresno Metropolitan Flood Control District's (FMFCD) storm water basins.
- Increase use of existing surface water entitlements from the Kings River, United States Bureau of Reclamation, and Fresno Irrigation District for treatment at the Northeast Surface Water Treatment Facility (NESWTF) and construct a new Southeast Surface Water Treatment Facility (SESWTF).
- Recycle wastewater at the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) for treatment and re-use for irrigation and to percolation ponds for groundwater recharge. Further actions include the General Plan, Policy RC- 6- d to prepare, adopt and implement a City of Fresno Recycled Water Master Plan.

The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's Metropolitan Water Resources Management Plan, 2010, 2015 & 2020 UWMPs is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing utilization of surface water supplies through expansion of surface water treatment facilities, intentional recharge, and conservation,

thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned.

Until 2004, groundwater was the sole source of water for the City. In June 2004, the 30 Million Gallon Per Day (MGD) Northeast Surface Water Treatment Facility ("NESWTF") began providing Fresno with water treated to drinking water standards and in May 2018, the 54 MGD Southeast Surface Water Treatment Facility ("SESWTF") became operational. In order to meet demands anticipated by the growth implicit in the 2025 Fresno General Plan further construction of surface water treatments facilities and recycled water facilities will be required. Surface water is used to replace lost groundwater through Fresno's intentional recharge program at the City-owned Leaky Acres, Nielsen Recharge Facility, and smaller facilities in Southeast Fresno. Fresno holds contracts to surface water supplies from Millerton Lake and contractual rights to surface water from Pine Flat Reservoir. In 2010, Fresno renewed its contract with the United States Bureau of Reclamation, which entitles the City to 60,000 acre-feet per year of Class 1 water into the extended future. This water supply has further increased the reliability of Fresno's water supply.

The use of groundwater will continue to be an important part of the City's supply but will not be relied upon as heavily as has historically been the case. The 2020 UWMP shows that groundwater pumped by the City has decreased from approximately 148,006 AF/year in 2008 to approximately 55,000 AF/year in 2020. The projected total estimated groundwater yield for 2045 is approximately 159,820 AF/year, inclusive of intentional recharge (Table 6-1, 2020 UWMP). In order to meet future demand projections, the City is planning to rely on expanding its delivery and treatment of surface water supplies and groundwater recharge activities.

Project construction would add additional impervious surfaces to the Project site; however, various areas of the Project site would remain largely pervious, which would allow infiltration to underlying groundwater. For example, the Project includes ample landscaping areas that would remain pervious. The areas would continue to contribute to groundwater recharge following the construction of the Project. Furthermore, the Project is not anticipated to significantly affect groundwater quality because sufficient stormwater infrastructure would be constructed as part of the Project to detain and filter stormwater runoff and prevent long-term water quality degradation. Therefore, Project construction and operation would not substantially deplete or interfere with groundwater supply or quality.

The Urban Water Management Plan states that in 2020, the City's water use averaged 198 GPCD based on 121,993 AF of water production and a service area population of 550,217. The City is far below its 2020 daily per capita water use target of 247 GPCD due to the extensive conservation efforts implemented by the City in the past decade (City of Fresno, 2020b; City of Fresno, 2020a).

The proposed Project consists of 145 dwelling units, and the average household size in Fresno is 3.06 (U.S. Census Bureau, 2019), therefore the Project will house approximately 444 people. Therefore, the proposed Project would result in estimated water demand of 87,912 gallons per day (444 people x 198 gallons/day = 87,912 gallons/day).

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Therefore, impacts are *less than significant.*

Mitigation Measures

No mitigation measures are required

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?

The Project site is mostly flat, and the Project would not substantially alter the existing drainage pattern of the site or area. The Project site does not have a stream or river and is not near another body of water. The Project would not result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

As mentioned previously, a SWPPP will be implemented during Project construction . SWPPPs include mandated erosion control measures, which are developed to prevent significant impacts related to erosion caused by runoff during construction. Once constructed, the Project would develop areas of impervious surfaces that would reduce the rate of percolation at the site or concentrate, but areas of open space and the proposed stormwater retention basin will allow for the percolation of stormwater to recharge the aquifer or the water would be directed into the City's existing stormwater sewer system. The Project would comply with applicable City development standards and codes. Therefore, the Project would have a less than significant impact on drainage patterns or cause substantial erosion or siltation on or off the site. The impact would be *less than significant*.

Mitigation Measures

No mitigation measures are required

ii. Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

No drainages or other water bodies are present on the project site, and therefore, the development of the site would not change the course of any such drainages that may potentially result in on or offsite flooding. Water would be used during the temporary construction phase of the Proposed project (e.g., for dust suppression). However, any water used for dust control would be mechanically and precisely applied and would generally infiltrate or evaporate prior to running off.

The project site is flat, and grading would be minimal. The topography of the site would not change because of grading activities, and it does not contain any water features, streams, or rivers. The potential for construction of the proposed project to alter existing drainage patterns would be minimized through compliance with the preparation of a SWPPP. With implementation of such measures, the project would not substantially increase the amount of runoff in a manner that would result in flooding on- or off-site. Impacts would be reduced to *less than significant.*

Mitigation Measures

No mitigation measures are required

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?

See responses (c(i)-c(ii)), above. The Project will comply with all applicable State and City codes and regulations, as noted above. The storm drainage plan will be supported by engineering calculations to ensure that the Project does not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

As discussed above, the proposed Project would result alter the drainage pattern of the site during construction and increase impervious surfaces post-construction. However, compliance with existing regulatory requirements, including compliance with City standards during construction including preparation of a drainage plan and SWPPP during construction would reduce or eliminate the potential for project operations to cause substantial additional polluted runoff or runoff in excess of existing or planned stormwater drainage systems.

Once constructed, there would be minimal use of materials that would create polluted runoff. Therefore, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide

substantial additional sources of polluted runoff and impacts will be *less than significant*.

Mitigation Measures

No mitigation measures are required

iv. Impede or redirect flood flows?

As discussed above in Impacts a through c (iii), construction activities could potentially degrade water quality through the occurrence of erosion or siltation at the Project site. Construction of the Project would include soil-disturbing activities that could result in erosion and siltation, as well as the use of harmful and potentially hazardous materials required to operate vehicles and equipment. The transport of disturbed soils or the accidental release of potentially hazardous materials could result in water quality degradation. The Project would be required to comply with the NPDES Construction General Permit. A SWPPP would be prepared to specify BMPs to prevent construction pollutants. The proposed Project would not direct excess surface waters impede or redirect any potential flood flows. The impact would be *less than significant*.

Mitigation Measures

No mitigation measures are required

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Project is located inland and not near an ocean or large body of water; therefore, it would not be affected by a tsunami. The Project is not located within a FEMA 100-year floodplain. Since the Project is located in an area that is not susceptible to inundation, the Project would not risk release of pollutants due to Project inundation. The impact would be *less than significant*.

Mitigation Measures

No mitigation measures are required

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

See response b. above. As noted, the proposed Project is anticipated to use approximately 16 million gallons of water annually. The Project will obtain water by connecting to City utility services.

Implementation of the Fresno General Plan policies, the Kings Basin Integrated Regional Water Management Plan, City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan and the applicable policies of the GP PEIR, will address the issues of providing an adequate, reliable, and sustainable water supply for the Project's urban domestic and public safety consumptive purposes. City of Fresno, Water Division has reviewed the Project for compliance with water quality and groundwater management. Further, the Fresno General Plan policies and initiatives ensure water conservation. The GP PEIR also evaluated the need for additional water conveyance infrastructure (e.g., new water wells) and the increase in additional water demand with the approval of proposed development in the City.

As noted above, the proposed project would be required to adhere to NPDES drainage control requirements during construction and operation as well as to FMFCD drainage control requirements. As a result, the proposed project would not include any other waste discharges that could conflict with the Basin Plan. Therefore, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?				X
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?				X

DISCUSSION

a) Physically divide an established community?

The Project site is currently designated by the City of Fresno General Plan for Residential, Urban Neighborhood Density planned land use. The site is currently vacant and does not include an established community.

The current Project land use designation allows for densities between 16 to 30 units per acre, intended to provide for single-family detached housing. The proposed Project would include 145 units on approximately 9.33 acres of currently undeveloped land, for a density of approximately 15.54 dwelling units per acre. Pursuant to Fresno Municipal Code Section 15-303, fractions of one-half (0.5) or greater shall be rounded up to the nearest whole number and fractions of less than one-half (0.5) shall be rounded down to the nearest whole number. Specific to residential density rounding, fractions only apply to minimum density, but not maximum density. In this case, 15.54 dwelling units per acre would be rounded up to 16 dwelling units per acre, which is consistent with the minimum density requirement of the Urban Neighborhood Density per the Fresno General Plan. Within the Project vicinity, there are single-family residential developments, undeveloped land, and a church surrounding the proposed Project. The proposed residential use is allowed within this land use designation, and the Project does not exceed the maximum density, therefore the Project is not dividing an established community. The Project is not being built in a pre-existing community area and would not create any physical barrier between an established community. There would be *no impact*.

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?

The proposed Project is located in an area that is planned for residential and urban development by the City. The construction of this Project will not conflict with any conservation plans because it is not located within any conservation plan areas.
It is determined that the proposed Project is consistent with respective General Plan objectives and policies as noted in Section 3 Urban Form, Land Use and Design. Urban form is the configuration of the combined physical components of the city; it is created by the interrelationship of those components as they form a cohesive whole. The components of urban form include: circulation (streets, sidewalks, transit, and bikeways), open space, buildings, and natural features. Policy UF-1-f encourages the use of a complete neighborhood design that is consistent with residential density targets. The Project is designed in a way that has a cohesive circulation with internal streets, sidewalks and open areas.

Additionally, the General Plan also emphasizes infill development outside of identified corridor areas, as outline in Section 3.3 of the General Plan. The site is surrounded by existing and proposed residential development and would fill in an undeveloped area with housing to meet the needs of the community.

The Project will be consistent with the General Plan and not significantly conflict with applicable land use plans, policies, or regulations of the City of Fresno.

There would be *no impact.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

DISCUSSION

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The California Department of Conservation, Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans. The subject site is not located in an area designated for mineral resource preservation or recovery; therefore, the Project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, there would be *no impact*.

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 subject site is not delineated on a local general plan, specific plan, or other land use plan as a locally-important mineral resource recovery site; therefore, it will not result in the loss of availability of a locally-important mineral resource. Therefore, there would be *no impact*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project 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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?		X		
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?			X	

DISCUSSION

The discussion below is based an Acoustical Study prepared for the Project (WJV Acoustics, Inc., 2021) and is attached as Appendix F.

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 in other applicable local, state, or federal standards?

Generally, the three primary sources of substantial noise that affect the City of Fresno and its residents are transportation-related and consist of major streets and regional highways; airport operations at the Fresno Yosemite International, the Fresno-Chandler Downtown, and the Sierra Sky Park Airports; and railroad operations along the BNSF Railway and the Union Pacific Railroad lines.

In developed areas of the community, noise conflicts often occur when a noise-sensitive land use is located adjacent or in proximity to a noise generator. Noise in these situations frequently stems from on-site operations, use of outdoor equipment, uses where large numbers of persons assemble, and vehicular traffic. Some land uses, such as residential dwellings, hospitals, office buildings, and schools, are considered noise-sensitive receptors and involve land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise.

Stationary noise sources can also influence the population, and unlike mobile, transportation-related noise sources, these sources generally have a more permanent and consistent impact on people. These stationary noise sources involve a wide spectrum of uses and activities, including various industrial uses, commercial operations, agricultural production, school playgrounds, high school football games, HVAC units, generators, lawn maintenance equipment, and swimming pool pumps.

Potential noise sources at the Project site would occur primarily from roadway noise from East Dakota Avenue. Modeled traffic noise levels for the closest lots to E. Dakota Avenue indicated that the traffic noise would be approximately 57 dB for both existing and future (2035) traffic conditions. Such exposure levels do not exceed the City's 65 dB exterior noise level standards (WJV Acoustics, Inc., 2021).

The City of Fresno interior noise level standard is 45 dB Ldn. The worst-case future noise exposure within the proposed residential development would be approximately 57 dB Ldn. This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 12 dB (57-45=12) (WJV Acoustics, Inc., 2021).

However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB Ldn interior standard at all proposed lots. Requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

Existing sensitive receptors, including single-family homes, are surrounding the Project site. During the construction phase of the Project, noise-generating activities will be present; however, it will be temporary in nature, and any machinery used as a part of the construction of the Project will be muffled. The Project will be required to provide screening measures when a project is located near differing land use, in order to shield the adjacent land uses, such as providing a 6-foot-high screen wall as detailed in Chapter 15, Article 20, Section 15-2008 – Screening between differing land uses of the Fresno Municipal Code (FMC).

Noise created by any proposed stationary noise sources or existing stationary noise sources which undergo modification that may increase noise levels shall be mitigated so as not to exceed the noise level standards of Table 5.11-8 of the GP PEIR at noise-sensitive land uses. If the existing ambient noise levels equal or exceed these levels, mitigation is required to limit noise to the ambient noise level plus 5 dB.

The current Project site is not developed. Therefore, it is reasonable to assume that the proposed Project will result in an increase in temporary and/or periodic ambient noise levels on the Project site above existing levels. However, these noise levels will not exceed those generated by adjacent existing or planned land uses when implementing screening measures required pursuant to the City of Fresno's development standards.

Short-term Noise and Vibration Impacts

The construction of a Project involves both short-term, construction-related noise, and long-term noise potentially generated by increases in area traffic, nearby stationary sources, or other transportation sources. The FMC allows for construction noise in excess of standards if it complies with the section below (Chapter 10, Article 1, Section 10-109 – Exemptions). It states that the provisions of Article 1 – Noise Regulations of the FMC shall not apply to:

Construction, repair, or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.

Thus, construction activity would be exempt from City of Fresno noise regulations, as long as such activity is conducted pursuant to an applicable construction permit and occurs between 7:00 a.m. and 10:00 p.m., excluding Sunday. Therefore, short-term construction impacts associated with the exposure of persons to or the generation of noise levels in excess of standards established in the general plan or noise ordinance or applicable standards of other agencies would be less than significant.

Long Term Noise Impacts

The proposed Project includes future residential uses. The immediate vicinity consists of existing and planned residential uses, which produce noise levels that are likely similar to noise levels produced by the proposed Project. Additionally, all surrounding properties are adjacent to collector and arterial streets, which increase the ambient noise of the Project site. The proposed Project is not projected to be a long-term noise source due to the Project being a use consistent with neighboring land uses.

Conclusion

Although the Project will create additional activity in the area, the Project will be required to comply with all noise policies and development standards identified within the Fresno General Plan and GP PEIR MM NOI-2 as well as the noise ordinance of the Fresno Municipal Code, Chapter 10 Article 1 – Noise Regulations. Furthermore, the Project may produce an elevated ambient noise level during construction; however, those impacts are temporary, and no operational noise will be generated that exceeds the adopted noise levels identified for neighboring land uses. Through compliance with the policies and development standards, the interior and exterior noise levels would comply with the City's noise standards, and impacts will be *less than significant with mitigation incorporated*.

Mitigation Measures

The proposed project shall implement and incorporate the noise-related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated September 2021.

PEIR MM NOI-2: Construction Vibration. The use of heavy construction equipment within 25 feet of existing structures shall be prohibited.

b) Generation of excessive groundborne vibration or groundborne noise levels?

The primary vibration-generating activities associated with the proposed Project would happen during construction when activities such as grading, utility placement, and road construction occur. Sensitive receptors, which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located approximately 25 to 50 feet or further from the Project site. At this distance, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. Therefore, short-term construction impacts associated with the exposure of persons to or the generation of construction would be *less than significant*. In addition, MM NOI-2 in the GP PEIR prohibits the use of heavy construction equipment within 25 feet of an existing structure. Therefore, impacts would be *less than significant with mitigation incorporated.*

c) 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 expose people residing or working in the project site to excessive noise levels?

The closest airport or airstrip is the Fresno Yosemite International Airport, located approximately 2 miles northwest of the Project site. The site is within the Airport Land Use Compatibility Plan (ALUCP) Zone 6- Traffic Pattern Zone. This zone includes regular aircraft traffic patterns based upon the 14 CFR Part 77 Conical Surface. The aircraft accident risk level is considered to be low in this zone (Fresno Council of Governments, 2018). For the Fresno Yosemite International Airport, portions of the Traffic Pattern Zone (Zone 6) are designated as “Urban.” The City of Fresno has created specific designations to prioritize development in the urban portions of the city. These “Urban Core” areas are used by the City of Fresno to identify areas that should be prioritized for development from the City of Fresno’s perspective. The Handbook, in Figure 4G, includes provisions for developing safety criteria for urban areas which includes no limit for intensity or density. Using the City of Fresno’s “Urban Core” areas, there is no limit for non-residential intensity in areas designated as Urban (Fresno Council of Governments, 2018).

The proposed Project is outside noise level contours identified in the ALUCP (Fresno Council of Governments, 2018). In conclusion, the proposed Project would not expose people residing or working in the Project site to excessive noise levels associated with such airport facilities, and there would be *less than significant impact.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
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 roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

DISCUSSION

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 roads or other infrastructure)?

The population in Fresno is 542,107 people (United States Census, 2021). The City of Fresno 2015-2023 Housing Element identifies the average household in the City of Fresno is 3.07 persons. The Project will construct housing with 145 dwelling units. The City's General Plan includes encourages residential developments to meet the future population growth needs. This project accommodates this anticipated increase in City's population by providing 145 new residences for existing and future residents.

The Project site has a General Plan designation of Urban Neighborhood Density Residential and is within the RM-2 (Residential Multi-Family, Urban Neighborhood) zone district. The Project is consistent with both the General Plan and zoning ordinance. Therefore, the Project would not induce substantial population growth in an area, either directly or indirectly. Impacts would be *less than significant.*

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Project site is undeveloped and surrounded by a combination of vacant lots, agriculture, and residential property. As proposed, the Project will not displace existing housing or people either directly or indirectly. Therefore, there are no impacts.

Mitigation Measures

No mitigation measures are required..

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
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:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

DISCUSSION

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 Project site is located approximately 1.4 miles northeast from Fire Station 10. The Project will not result in significant environmental impacts related to acceptable service ratios, response times, or to other performance objectives fire protection services.

The proposed Project will comply with Title 24 of the California Building Code and local development standards. Prior to recordation of any subdivision map, the applicant will be required to enter into an agreement with the City to contribute towards

necessary fire protection equipment and/or facilities as determined through negotiations between the City and the applicant.

The Fire Department has established the objectives set forth in NFPA 1710 as department objectives to ensure public health, safety, and welfare. Demand for fire service generated by the Project is within planned services levels of the Fire Department, and the applicant will pay any required impact fees at the time building permits are obtained.

The General Plan includes policies that would protect the Project and the community from fire dangers. These include:

PU-3-d: Review Development Applications. Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate onsite and offsite fire protection systems and features are provided.

PU-3-e: Building Codes. Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.

In addition, the Project is required to pay development impact fees that will provide for future fire-related facilities as the City's population increases. Recognizing that there would be an increased demand for fire and emergency medical response, the General Plan includes several policies to support the activities of the Fresno Fire Department. The policies and objectives of the General Plan will ensure that the proposed Project does not significantly affect fire protection.

The construction of the Project may result in a minor increase in demand for fire protection services with implementation of the applicable General Plan policies and payment of developer fees related to fire protection, the level of risk to life and property from fire would be considered *less than significant*.

Mitigation Measures

No mitigation measures are required

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ii. Police protection?

Police protection services within the City limits are provided by the City of Fresno Police Department. The Project site is located approximately 6.5 miles southeast of the Northeast Police District, Sector 3G. The Project may result in impacts related to acceptable service ratios, response times, or to other performance objectives specific to police protection services. However, to reduce impacts to public protection services, the Project developer is required to pay appropriate impact fees related to police

protection and is responsible for constructing any infrastructure needed to serve the Project. Therefore, with implementation of standard local requirements for development projects related to police protection services, Project impacts are considered less than significant. Therefore, with implementation of standard local requirements for development projects related to police protection services, Impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are required

iii. Schools?

Pursuant to the Clovis Unified School District memorandum dated June 20, 2022, the schools that will serve the proposed project are Roger S. Oraze Elementary School, approximately 0.5 miles east of the Project, Reyburn Intermediate School approximately 2 miles northeast of the Project, and Clovis East High School approximately 2.5 miles northeast of the Project.

The proposed residential uses result in the generation of students, which would impact the District's student classroom capacity. Any future development occurring as a result of the proposed project may have an effect on the Clovis Unified School District's student housing capacity. The District, through local funding, is in a position to mitigate its shortage of classrooms to accommodate planned population growth for the foreseeable future. However, the District recognizes that the legislature, as a matter of law, has deemed under Government Code Section 65996 that all school facilities impacts are mitigated as a consequence of SB 50 Level 1, 2, and 3 developer fee legislative provisions. The developer will pay appropriate impact fees at time of building permits. The proposed Project does not result in the construction of new school facilities. Impacts would be *less than significant*.

iv. Parks?

The proposed Project does include uses that would increase the use of park and recreation facilities in the area. The nearest parks are Community Park approximately 0.5 miles southeast. The City of Fresno maintains a park goal to provide five acres of city park space per 1,000 residents. To meet this park goal, the Project would require up to 2.3 acres of park uses for the 432 residents. Because the Project does not meet this goal, the applicant would be required to pay the required park impact fees.

Park and recreation fees (Quimby) are collected for new residential developments. The Project review and approval process will ensure that all park related fees are paid by the applicant. These requirements will ensure that the proposed Project does not significantly affect park and recreation facilities. Impacts would be *less than significant*.

v. Other public facilities?

The Department of Public Utilities (DPU) has determined that adequate sanitary sewer and water services are available to serve the project site subject to compliance with the conditions submitted by the DPU for this project and implementation of the Fresno General Plan policies and the mitigation measures of the related Master Environmental Impact Report; and, the construction and installation of public facilities and infrastructure in accordance with Department of Public Works standards, specifications and policies.

For sanitary sewer service, these infrastructure improvements and facilities include typical requirements for the construction and extension of sanitary sewer mains and branches. The proposed Project will also be required to provide payment of sewer connection charges.

No significant adverse impacts are expected to occur as a result of the construction of any such facilities or improvements beyond those evaluated within GP PEIR No. 20190500005 or those analyzed within the respective sections of this initial study, as included herein. Impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION - Would the project:				
a) 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?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

DISCUSSION

a) 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?

Although the proposed Project would increase the use of park and recreation facilities in the area, the proposed Project will not result in the physical deterioration of existing parks or recreational facilities. The Project includes common activity areas including a pool and recreation building which will be located within the Project area for use by residents of the complex.

There are two parks in the vicinity of the Project, including Carriage House Park, approximately 0.5 miles southeast Martin Ray Reilly Park, approximately 3.8 miles to the southwest, and Trolley Creek Park, 3.5 miles to the southwest.

As noted in Impact XV (iv), the Project would require up to 2.3 acres of park uses for the 432 residents. Because the Project does not meet this goal, the applicant would be required to pay the required park impact fees. The Project population growth is minimal and will not have a negative impact on neighborhood or regional parks as the Project has its own open space area . Project *impacts* related to parks and recreational facilities are considered to be *less than significant*

Mitigation Measures

No mitigation measures are required

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

As stated above, Project proposes to construction a community pool and recreational facilities within the development. Therefore, through the standard City building process for the future park and payment of the required development fees, the Project does not significantly affect park and recreation facilities. The Project would not result in any new recreational, environmental impacts and are considered to be *less than significant* .

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		X		
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

The discussion below is based on a Transportation Impact Analysis conducted for the Project and is attached as Appendix G (VRPA Technologies, Inc., 2022).

DISCUSSION

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Within proximity to the Project, there are several transportation facilities, including transit, roadway, bicycle, and pedestrian facilities.

Transit Services

Fresno Area Express (FAX) is the transit operator in the City of Fresno. The closest is FAX Route 45, approximately 0.5 miles south of the proposed Project site. Route 45 operates at 30-minute intervals on weekdays and weekends. The Project is not expected to disrupt or impede existing transit facilities because few people will use the transit system. The construction of 145 units with an additional 442 people is not anticipated to create delays in bus service in the area.

Bicycle and Pedestrian Facilities

The 2017 City of Fresno Active Transportation Plan (ATP) refers to the Caltrans Highway Design Manual for classification of bicycle facilities as follows:

- Class I Bikeway (Bike Path): Off-street facilities that provide exclusive use for non-motorized travel, including bicyclists and pedestrians.
- Class II Bikeway (Bike Lane): On-street facilities that use striping, stencils, and signage to denote preferential or exclusive use by bicyclists.
- Class III Bikeway (Bike Route): On-street pavement markings or signage that connect the bicycle roadway network along corridors that do not provide enough space for dedicated lanes on low-speed and low-volume streets.
- Class IV Bikeway (Separated Bikeways): Physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. Commonly known as “cycle tracks,” they are located within the street right-of-way but provide similar comfort when compared to Class I Bikeways.

The Project is not expected to disrupt or impede existing or planned bicycle facilities.

The proposed Project will not require any changes to existing transportation systems and will have no impact on any plans, ordinances, or policies related to the effectiveness or performance of transit, pedestrian and bicycle facilities. The Project will comply with all applicable City development standards. There would be *no impacts*.

Roadway and Circulation

Results of the analysis show that the intersection of Dakota Avenue and Fowler Avenue does not currently meet the minimum level of service criteria during both the AM and PM Peak Hour, as shown in Table 17-1 below.

Table 17-1
Existing Intersection Operations

Intersection	Control	Target LOS	Peak Hour	Existing Delay	Existing LOS
Ashlan Ave & Fowler Ave	Signalized	D	AM	40.4	D
			PM	40.7	D
Dakota Ave and Fowler Ave	All Way Stop	D	AM	65.5	F
			PM	80.6	F
Shields Ave and Fowler Ave	Signalized	D	AM	19.4	B
			PM	18.0	B
Dakota Ave and West Project Access	Two Way Stop	D	AM	Future Intersection	
			PM		
Dakota Ave and East Project Access	Two Way Stop	D	AM	Future Intersection	
			PM		

(VRPA Technologies, Inc., 2022)

Table 17-2 below presents trip generation estimates for the Project. For comparison purposes, an estimate of the number of trips that potentially could have been generated by a Project.

Table 17-2
Project Trip Generation Estimate

Land Use	Units	Daily		A.M. Peak Hour					P.M. Peak Hour		
		Rate	Total	In:Out	In	Out	Total	In:Out	In	Out	Total
Single-Family (210)	145	9.43	1367	25:75	27	77	104	63:37	46	27	73

Source: (VRPA Technologies, Inc., 2022)

The potential impacts on the local roadway system from the construction of 145 homes related to vehicle trips and the Project's operational traffic on the area roadway and circulation system would impact intersections already operating below threshold. In order to reduce impacts to levels of service, the following improvements will be required:

INTERSECTIONS

Ashlan Avenue / Fowler Avenue
Recommended improvements to achieve acceptable levels of service:

Near-Term Plus Project scenario:

- Widen the westbound approach to 1 left lane, 2 through lane and 1 right turn lane (adding 1 right turn lane)
- Widen the eastbound approach to 1 left lane, 2 through lane and 1 right turn lane (adding 1 right turn lane)

Cumulative Year 2042 Plus Project scenario:

- Widen the westbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
- Widen the eastbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
- Widen the northbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane)
- Widen the southbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane)

The improvements identified above for the Near-Term Plus Project and Cumulative Year 2042 Plus Project scenario are sufficient to meet the City of Fresno's level of service criteria.

Dakota Avenue/ Fowler Avenue

Recommended improvements to achieve acceptable levels of service:

Existing Plus Project, Near-Term Plus Project, and Cumulative Year 2042 Plus Project scenarios:

- Install Traffic Signal

The signalization of the Dakota Avenue and Fowler Avenue intersection is included in the City of Fresno's Traffic Signal Mitigation Impact Fees (TSMI Fee). The City of Fresno Master Fee Schedule was used to determine the TSMI Fee for the Project. The TSMI Fee can be calculated using the charge rate of $475 per dwelling unit. Therefore, with 145 units, the total fee will be $68,875.

The improvements identified above for the Existing Plus Project, Near-Term Plus Project, and Cumulative Year 2042 Plus Project scenarios are sufficient to meet the City of Fresno's minimum level of service criteria. With implementation of MM TRA-1 and TRA-2, impacts would be less than significant *with mitigation incorporated*.

Mitigation Measures

MM TRA-1: Prior to construction, the Project proponent shall be required to contribute a fair share towards the costs of improvements that are identified for the Cumulative Year 2042 scenarios. The required City of Fresno's Traffic Signal Mitigation Impact Fees (TSMI Fee) required to be paid is $68,875.

MM TRA-2: Prior to construction, the Project proponent shall be required to contribute a fair share payment towards the costs of improvements to the following streets:

- Widen Ashlan Avenue at Fowler Avenue
- Install traffic signal at Dakota Avenue at Fowler Avenue

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities is no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that “[a] lead agency has discretion to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.”

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds, pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor’s Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified projects that meet the adopted criteria from needing to prepare a detailed VMT analysis.

The City of Fresno VMT Thresholds Section 3.0 regarding Project Screening discusses a variety of projects that may be screened out of a VMT analysis including specific development and transportation projects. For development projects, conditions may exist that would presume that a development project has a less than significant impact. These may be size, location, proximity to transit, or trip-making potential. For transportation projects, the primary attribute to consider with transportation projects is the potential to increase vehicle travel, sometimes referred to as “induced travel.”

One of the eligible screening criteria is whether a residential project is located within an area with low VMT, as designated in the screening map for residential uses (Figure 6) in the City of Fresno’s CEQA Guidelines for VMT Thresholds Technical Advisory. These low VMT areas were calculated using Fresno County as the region. The Fresno County average VMT per capita is 16.10.

Additionally, using the Fresno Council of Governments (COG) VMT Calculator (Version 3.7), the proposed project in this area has an average VMT per capita of 13.24, which is 13 percent or more lower than the County’s 16.10 average VMT per capita.

The proposed project is eligible to screen out because it is located in a low VMT zone, as designated by the Fresno COG screening map and Figure 6 of the City of Fresno

CEQA Guidelines for VMT Thresholds. This results in a *less than significant impact*.

Mitigation Measures

No mitigation measures are required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project will be designed to current standards and safety regulations. All intersections will be constructed as to comply with the City and Caltrans regulations, and design and safety standards of Chapter 33 of the California Building Codes (CBC) and the guidelines of Title 24 in order to create safe and accessible roadways.

Vehicles exiting the subdivision will be provided with a clear view of the roadway without obstructions. Landscaping associated with the entry driveways could impede such views, if improperly installed. Specific circulation patterns and roadway designs will incorporate all applicable safety measures to ensure that hazardous design features or inadequate emergency access to the site or other areas surrounding the project area would not occur. Therefore, with the incorporated design features and all applicable rules and regulations, the Project will have a *less-than-significant* impact.

Mitigation Measures

No mitigation measures are required.

d) Result in inadequate emergency access?

State and City Fire Codes establishes standards by which emergency access may be determined. The proposed Project would have to provide adequate unobstructed space for fire trucks to turn around. The proposed project site would have adequate internal circulation capacity including entrance and exit routes to provide adequate unobstructed space for fire trucks and other emergency vehicles to gain access and to turn around. The proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. Impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:		X		
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k), or,		X		
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 PRC section 5024.1. In applying the criteria set forth in subdivision (c) of PRC section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

DISCUSSION

a) Would the project 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)?

See Also Impact V. CULTURAL RESOURCES a-c.

On September 16, 2021, the Native American Heritage Commission (NAHC) was asked to conduct a search of its Sacred Lands File to identify previously recorded sacred sites or cultural resources of special importance to tribes and provide contact information for local Native American representatives who may have information about the project area. Letters were mailed to tribes listed in Appendix C.

A Sacred Lands File request was also submitted to the Native American Heritage Commission. A response dated October 19, 2021, indicates negative results. A cultural resources records search (RS #21-415) was conducted at the Southern San Joaquin Valley Information Center, CSU Bakersfield (QK, 2021) records search covered an area within one-half mile of the Project and included a review of the *National Register of Historic Places, California Points of Historical Interest, California Registry of Historic Resources, California Historical Landmarks, California State Historic Resources Inventory*, and a review of cultural resource reports on file.

The records search indicated that the subject property had never been surveyed for cultural resources, and it is not known if any exist there. Based on the results of cultural records search findings and the lack of historical or archaeological resources previously identified within a half-mile radius of the proposed Project, the potential to encounter subsurface cultural resources is minimal. Additionally, the Project construction would be conducted within the partially developed and previously disturbed parcel. The potential to uncover subsurface historical or archaeological deposits would be considered unlikely.

However, there is still a possibility that historical or archaeological materials may be exposed during construction. Grading and trenching, as well as other ground-disturbing actions, have the potential to damage or destroy these previously unidentified and potentially significant cultural resources within the project area, including historical or archaeological resources. Disturbance of any deposits that have the potential to provide significant cultural data would be considered a significant impact. To reduce the potential impacts of the Project on cultural resources, the MM CUL-1 through CUL-3 are recommended to be included as Conditions of Approval. The Project would have a *less than significant impact with mitigation incorporated.*

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process

for the purpose of protecting Traditional Tribal Cultural Resources through the CEQA Guidelines. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed Project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Additional information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Pursuant to Assembly Bill 52 (AB 52), the Table Mountain Rancheria Tribe and the Dumna Wo Wah were invited to consult under AB 52. No tribes elected to consult on the proposed project. Assembly Bill 52 (AB 52), which became law January 1, 2015, requires that, as part of the CEQA review process, public agencies provide early notice of a project to California Native American Tribes to allow for consultation between the tribe and the public agency. The purpose of AB 52 is to provide the opportunity for public agencies and tribes to consult and consider potential impacts to Tribal Cultural Resources (TCR's), as defined by the Public Resources Code (PRC) Section 2107(a). Under AB 52, public agencies shall reach out to California Native American Tribes who have requested to be notified of projects in areas within or which may have been affiliated with their tribal geographic range.

Overall, because all tribes, to which invitations for consultation were extended, declined AB 52 consultation and because existing cultural resources protection laws exist that would require construction activities to cease if artifacts are discovered, To reduce the potential impacts of the Project on cultural resources, the MM CUL-1 through CUL-3 are recommended The Project would have a *less than significant impact with mitigation incorporated*.

Mitigation Measures

The proposed project shall implement and incorporate the tribal cultural resource-related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated September 2021.

CUL-1.1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the

discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-germ preservation to allow future scientific study.

CUL-2: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for prehistoric archaeological resources shall be conducted. The following procedures shall be followed.

If prehistoric resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that buried prehistoric archaeological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with CEQA Guidelines Section 15064.5.

If the resources are determined to be unique prehistoric archaeological resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any prehistoric archaeological artifacts recovered as a result of mitigation shall be provided to a City approved institution or person who is capable of pro viding long term preservation to allow future scientific study.

If prehistoric resources are found during the field survey or literature review, the resources shall be inventoried using appropriate State record forms and submit the forms to the Southern San Joaquin Valley Information Center. The resources shall be evaluated for significance. If the resources are found to be significant, measures shall be identified by the qualified archaeologist. Similar to above, appropriate mitigation measures for

significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include an archaeological monitor. The monitoring period shall be determined by the qualified archaeologist. If additional prehistoric archaeological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

CUL-3: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
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 effect?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?		X		
c) Result in a determination by the waste water 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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

DISCUSSION

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 proposed Project will require construction of new infrastructure to connect to the existing utility infrastructure. This will include water, wastewater, and storm water drainage connections. Additionally, the Project will include connections for electric power, natural gas, and telecommunications facilities. The installation of this infrastructure will not require any major upsizing or other offsite construction activities that would cause a significant impact. The new infrastructure would be connected to the existing infrastructure that is adjacent to the Project site.

Impacts to storm drainage facilities have been previously discussed under the Hydrology and Water Quality section included within this analysis herein above. As described in Section VII, Geology and Soils, and in compliance with NPDES General Construction Permit requirements, the proposed Project would design and submit a site-specific SWPPP (MM GEO-1) to minimize the discharge of wastewater during construction and a Water Quality Management Plan that includes best management practices (BMPs) for runoff control as required. Therefore, the proposed Project would not require new stormwater drainage facilities to manage stormwater runoff during construction or operation.

The proposed Project would be subject to the payment of any applicable connection charges and/or fees and extension of services in a manner that is compliant with the Department of Public Utilities standards, specifications, and policies.

Sanitary sewer and water service under City of Fresno jurisdiction, delivery is also subject to payment of applicable connection charges and/or fees; compliance with the Department of Public Utilities standards, specifications, and policies; the rules and regulations of the California Public Utilities Commission and California Health Services; and, implementation of the City- wide program for the completion of incremental expansions to facilities for planned water supply, treatment, and storage.. Impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are required

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As discussed under the Section VII Hydrology and Water Quality section of this Initial Study, the Fresno General Plan recognizes regional water resource planning efforts,

such as, the Kings Basin's Integrated Regional Water Management Plan, the Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno 2020 UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet existing and future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and provide a plan of reasonably implementable measures and facilities. Through routing to the applicable departments and agencies, the City has determined that adequate water supply exists to serve the proposed Project. Additionally, the applicant will be required to comply with all requirements of the City of Fresno Department of Public Utilities to reduce the Project's water impacts to *less than significant*. The City of Fresno General Plan GP PEIR concludes that impacts associated with water supply facilities and capacity resulting from buildout of the General Plan, including the proposed Project site, would be *less than significant*.

Mitigation Measures

No mitigation measures are required

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?

See Impact (b) above. The City of Fresno acts as the Regional Sewer Agency and is responsible for operating the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) and the North Fresno Wastewater Treatment Facility (NFWTF). The Regional Facility provides wastewater treatment for a service area that includes most of the Cities of Fresno and Clovis, and some unincorporated areas of Fresno County. According to the City's General Plan GP PEIR, the Regional Facility received and treated approximately 72,302 acre-feet (AF) of wastewater during 2011, representing an annual average daily flow of approximately 64.5 million gallons per day (MGD). The quantity of wastewater received and treated by the Regional Facility has been declining since 2006, when it peaked at a total of approximately 80,801 AF, representing an annual average daily flow of approximately 72.1 MGD. The permitted wastewater treatment capacity of the Regional Facility is currently 80.0 MGD as an annual monthly average flow, and 88.0 MGD as a maximum monthly average flow. The City is currently evaluating upgrades and modifications to the existing Regional Facility that may result in a capacity rating increase of 15.0 MGD. The City of Clovis owns 9.3 MGD of wastewater treatment capacity at the Regional Facility, and the City of Fresno owns the remaining capacity.

The NFWTF was constructed in late 2006 to provide wastewater treatment service for residential and commercial development in the surrounding area of north Fresno. The permitted capacity of the NFWRF is 0.71 MGD, as an average monthly flow, and 1.07 MGD, as a maximum daily flow. The City's master plan for the NFWRF calls for

ultimate expansion to an average monthly flow capacity of 1.07 MGD upon full development of the NFWRF service area.

The City of Fresno General Plan GP PEIR concludes that impacts associated with wastewater treatment facilities and capacity resulting from buildout of the General Plan, including the proposed Project site, would be *less than significant*.

The City of Fresno Department of Public Utilities has reviewed the Project and determined that sanitary sewer facilities are available to provide service to the site, subject to the required conditions of approval. The City will provide sewer connection. The conditions of approval include payment of the applicable sanitary sewer fees, which would eventually be used to provide funding for the improvements at the RWRF and NFWTF in order to expand. The proposed Project will not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are 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?

The City of Fresno Department of Public Utilities, Solid Waste Division has reviewed the Project for compliance with any federal, State, and local management and reduction statutes and regulations related to solid waste. According to the City's GP PEIR, garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station. Once the trash has been off-loaded at the transfer station, it is sorted, and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for a non-hazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day. Other landfills within the County of Fresno include the Clovis Landfill, with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047. There is also the Coalinga Landfill, with a maximum

remaining capacity of 1,930,062 cubic yards, a maximum permitted throughput of 200 tons per day, and an estimated closure date of 2029. As noted above, the estimated closure date of the American Avenue Landfill is 2031. Additional capacity also exists at the Clovis Landfill and Coalinga Landfill. The 200 tons per year would not result in exceedance of the local capacity infrastructure.

It is anticipated the Project would general minimal amounts of waste during construction. Any Hazardous waste generated during construction would be disposed of at an approved location, and construction activities are not expected to exceed the capacity of these landfills.

In the operation phase, typical household refuse would be generated by residences. According to CalRecyle, residential units average 12.23 lbs. of household refuse per day. The proposed 72 units would generate approximately 881 lbs. per day. The Project will comply with any statutes and regulations related to solid waste. Therefore, the proposed Project would not result in any waste related environmental impacts, and impacts would be *less than significant*.

Mitigation Measures

No mitigation measures are required

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The City of Fresno Department of Public Utilities, Solid Waste Division has reviewed the Project for compliance with any federal, State, and local management and reduction statutes and regulations related to solid waste. According to the City's General Plan GP PEIR, garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station. Once trash has been off-loaded at the transfer station, it is sorted, and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for non-hazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day. Other landfills within the County of Fresno include the Clovis Landfill with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047. There is also the Coalinga Landfill with a maximum

remaining capacity of 1,930,062 cubic yards, a maximum permitted throughput of 200 tons per day, and an estimated closure date of 2029.

Using the solid waste generation rates included in the City's General Plan GP PEIR, the proposed 110 units would generate 1,100 pounds of waste per day (or 200 tons per year). The Project site will be serviced by the solid waste division, and the solid waste generated by the Project would be sent to the American Avenue Landfill. As noted above, the estimated closure date of the American Avenue Landfill is 2031. Additional capacity also exists at the Clovis Landfill and Coalinga Landfill. The 200 tons per year would not result in exceedance of the local capacity infrastructure. Therefore, the Project will comply with any statutes and regulations related to solid waste.

Impacts would be *less than significant*.

Mitigation Measures

- No mitigation measures are required

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – 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?			X	
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?			X	
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?			X	
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?			X	

DISCUSSION

Setting

There are no State Responsibility Areas (SRAs) within the vicinity of the Project site. The Project site is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. Although this CEQA topic only applies to areas within an SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

DISCUSSION

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project site will connect to an existing network of City streets. The Project site is located in an area with several alternative access roads allowing access in the event of an emergency. Access to the alternative access roads would be maintained throughout construction, and appropriate detours would be provided in the event of potential road closures. The City of Fresno Fire Department is in charge of emergency response and preparedness.

Therefore, no significant impacts related to the impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would occur. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts will be *less than significant.*

Mitigation Measures

No mitigation measures are 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?

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The Project site is located in an area that is predominately urban, which is not considered at a significant risk of wildlife. There are minimal amounts of highly flammable fuels such as dry grasses in the area. Therefore, in the unlikely event of a wildfire, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts will be *less than significant.*

Mitigation Measures

No mitigation measures are 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?

The Project includes development of infrastructure (water, sewer, and storm drainage) required to support the proposed residential uses. The Project site is surrounded by existing and future urban development. The Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. However, the development will meet local and State development codes and regulations related to fire protection and prevention. Impacts would be *less than significant.*

Mitigation Measures

No mitigation measures are 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?

The proposed Project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the Project site and do not result in downstream flooding or major drainage changes. A storm drainage plan would be designed and engineered to ensure the proper construction of storm drainage infrastructure to control runoff and prevent flooding, erosion, and sedimentation.

Upon development of the site, stormwater would flow to the existing storm drains in the adjacent roadways. Any further storm drain requirements will be processed by the Fresno Metropolitan Flood Control District and constructed per the District's standards. Additionally, the Project site is located within FEMA "Area of Minimal Flood Hazard" indicating that the site is located outside of the 100-year flood hazard zone. Further, because the site is essentially flat and located in an existing urbanized area of the City, downstream landslides would not occur.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e., cut and fill). The Project site is relatively flat; therefore, the potential for a landslide in the Project site is essentially non-existent. Impacts would be *less than significant.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

DISCUSSION

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or

restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

As evaluated in this IS/MND, the proposed project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. Mitigation measures have been included to lessen the significance of potential impacts. Similar mitigation measures would be expected of other projects in the surrounding area, most of which share a similar cultural paleontological and biological resources. Consequently, the incremental effects of the proposed project, after mitigation, would not contribute to an adverse cumulative impact on these resources. Therefore, the project would have a *less-than-significant impact with mitigation incorporated*.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

As described in the impact analyses in Sections 3.4.1 through 3.4.20 of this IS/MND, any potentially significant impacts of the proposed project would be reduced to a less-than-significant level following incorporation of the mitigation measures. All planned projects in the vicinity of the proposed project would be subject to review in separate environmental documents and required to conform to the City of Lemoore General Plan, zoning, mitigate for project-specific impacts, and provide appropriate engineering to ensure the development meets are applicable federal, State and local regulations and codes. As currently designed, and with compliance of the recommended mitigation measures, the proposed project would not contribute to a cumulative impact. Thus, the cumulative impacts of past, present, and reasonably foreseeable future projects would be *less than significant with mitigation incorporated.*

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

All of the Project's impacts, both direct and indirect, that are attributable to the Project were identified and mitigated to a less-than-significant level. The Project will have the appropriate engineering to ensure the development meets are applicable federal, State and local regulations and codes. Thus, the cumulative impacts of past, present, and reasonably foreseeable future projects would be less than cumulatively considerable. Therefore, the proposed Project would not either directly or indirectly cause substantial adverse effects on human beings because all potentially adverse direct impacts of the proposed Project are identified as having *less-than-significant impact with mitigation incorporated*.

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WJV Acoustics, Inc. (2021). *Acoustical Analysis for Tract 6374.*

RECONNAISSANCE SURVEY FORM

PROJECT INFORMATION		
Project / Site Name: Lennar Tract 6374	**Date:** ~~08~~ 9/24/21	**Time:** 0835-1030
Project Number: 210350	**Biologist:** SGleason	
Primary Activity: residential development		

PROJECT SITE CONDITIONS				
Present Land Use(s) of Site: undeveloped (75%), urban/res. (25%)				
Site Disturbance? ☒ Yes; ☐ No; Approx % Disturbed %				
Dominant Vegetation (i.e. Valley Saltbush Scrub, Valley Sink Scrub, Non-native Grasslands, Exposed Soil, Ruderal, Abandoned Agriculture): non-native grassland, ruderal, barren/dev/urban				
Topography: flat				
Slopes	☒ Flat to Slight	☐ Moderate	☐ Severe	**Aspect:** ☐ North; ☐ East; ☐ South; ☐ West
Adjacent Land Use(s):				
Weather Conditions: smoky/hazy			**Weather Temperature:** 74°F - 79°F	

NATURAL COMMUNITIES	
Dominant:	Subdominant:
✓	✓

RIPARIAN VEGETATION/OAKS
Vegetation with DBH ≥ 4 inches: ☐ Yes; ☐ No
Species List:
✓

SPECIAL-STATUS PLANTS	SPECIAL-STATUS WILDLIFE
✓	✓

SPECIES SIGNS (list species):	
Dens: none evident from perimeter	Guano/urine stains: none obs.
Burrows: none evident from perimeter	Tracks: dog
Nests: none obs.	Other:
Scat: none obs.	

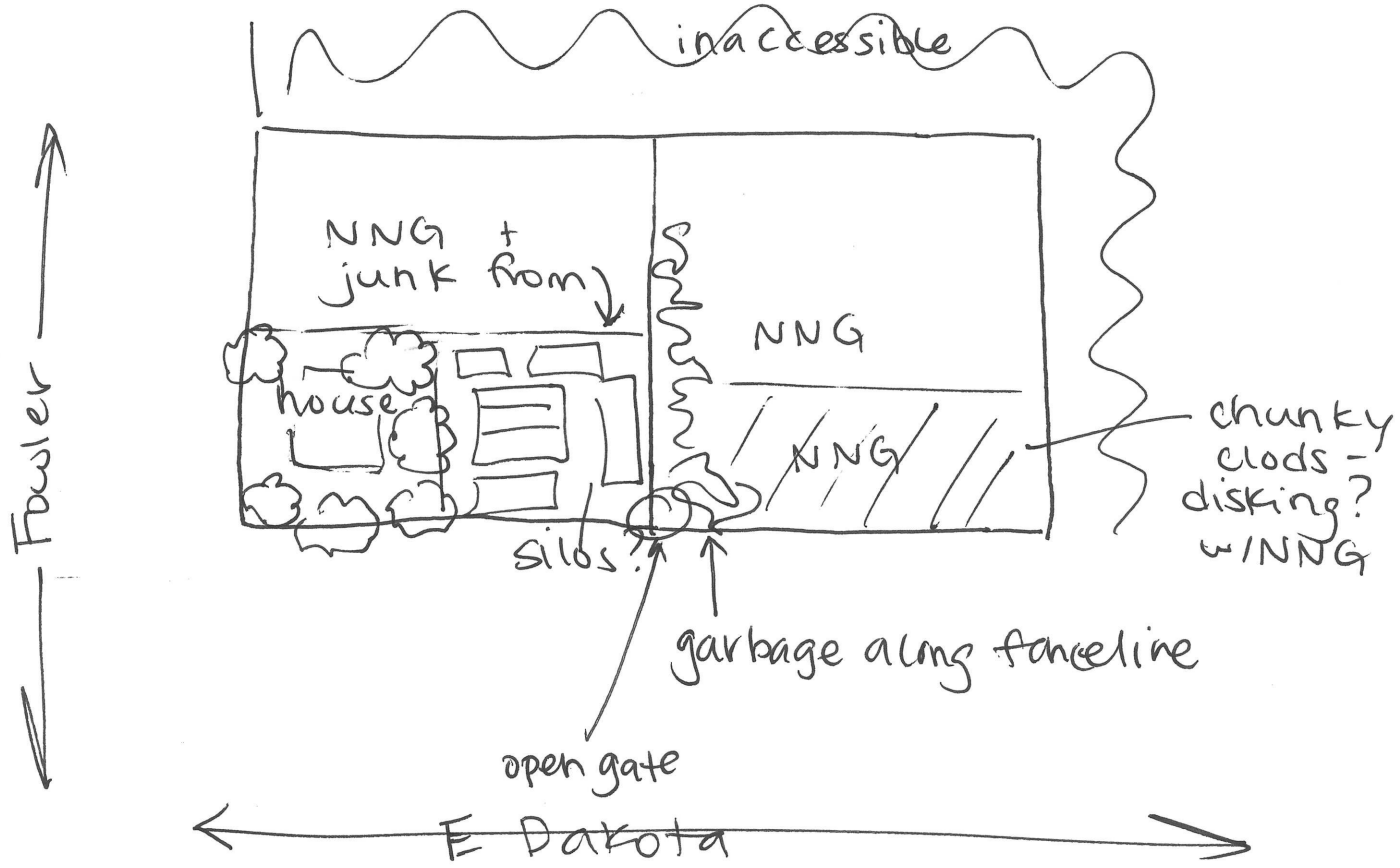
WATERS, STREAMBEDS, AND WETLANDS
Perennial Stream/River Present
Intermittent/Ephemeral Stream Present
Seeps or Springs Present
Pond or Lakes Present
Canal/Ditch/Basin Present
Ordinary High Water Mark Present
Banks Present
Wetlands Present
Hydrophytic Vegetation Present
Recent Erosion Obvious
Mud Cracks Present
Water Present
Notes:

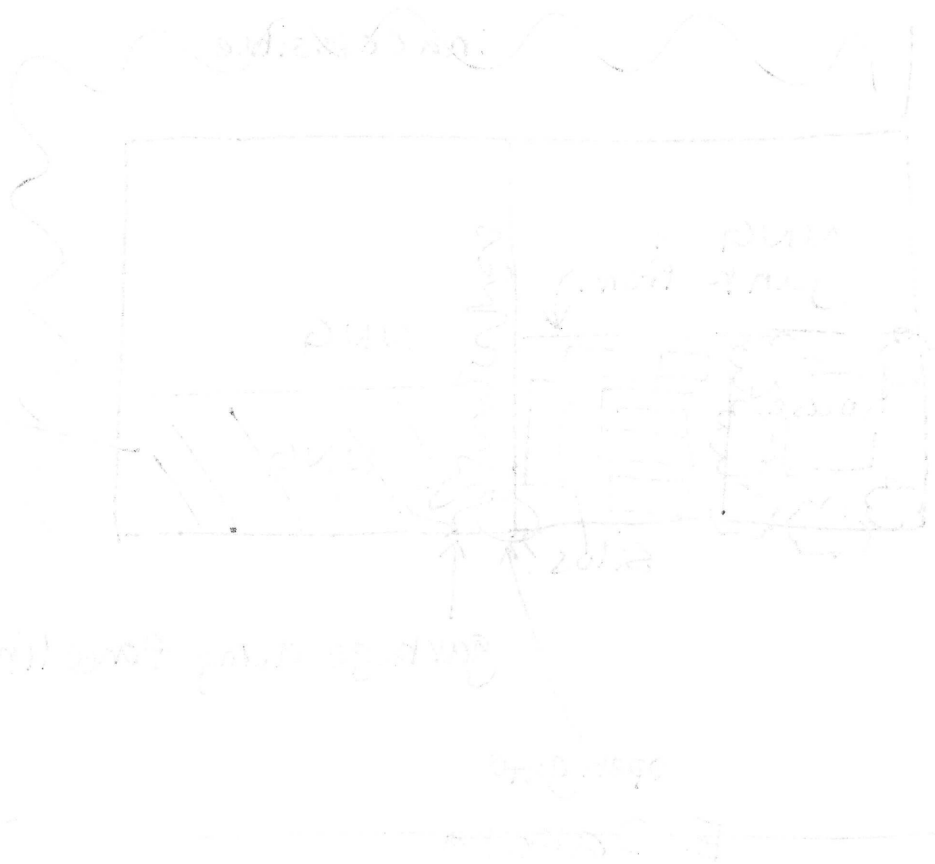
VEGETATION INVENTORY LIST:	WILDLIFE INVENTORY LIST:
fan palm	~~SORA~~
Amsinckia	HOFI
wild oat	MODO
cheeseweed	BLPH
foxtail	gull- Herring or CA
Erodium	AMCR
wild radish	HOSP
Bermuda grass	dom. dog.
sprickly lettuce	CAGS obs. near church (buff)
Arrowleaf acanth	SAPH
Artemisia	ANHU
ripgut	NOMO
telegraph	
horseweed	
bull thistle	
eucalyptus (E buffer)	
ornamental/planted trees ~~(E/W)~~	buffer + SW quadrant
London	
bindweed	

VEGETATION INVENTORY LIST:	WILDLIFE INVENTORY LIST:
cottonwood	
Tribulus	
Croton	
spurge sp.	
spikerush	
Jimson	

PHOTO DOCUMENTATION		
Photo ID #	**Orientation**	**Description**
		Buffers
		South - disked field
		north - church, NNG
		east - houses w/ trees (south)
		NNG (north)
		west - ~~storage containers (south)~~ silos residential
		eastern APN
		trash dumped SW corner of ~~Project~~ by silos
		Project fenced ~~on So. side~~ all around
	Proj. -	SW quadrant - storage silos; house on Fowler planted trees occupied man + dog
		Proj. - dense NNG over majority

ADDITIONAL INFORMATION (e. g., site drawing, notes, etc.):





TECHNICAL MEMORANDUM

Date: October 25, 2021

Project: Cultural resources records search- Tract 6374 Project, City of Fresno, Fresno County, CA

To: Jaymie Brauer, Principal Planner

From: Robert Parr, MS, RPA, Senior Archaeologist

Subject: Cultural Resources Records Search Results (RS#21-415)

Background

A cultural resources records search (RS #21-415) was conducted at the Southern San Joaquin Valley Information Center, CSU Bakersfield for the above referenced Project in the City of Fresno, Fresno County to determine whether the proposed project would impact cultural resources.

Project Location

The Project is located in Fresno County, California (Attachment A: Figures 1-4). The Project site (APN 310-201-03) is within the southwest ¼ of the northwest ¼ of Section 28, T.13S, R.21E (MDB&M) (Figures 1-4).

Project Description

The City of Fresno proposes to construct a 145-lot subdivision (145 single-family lots and a community residential pool with parking spots) on approximately 10 acres of land (Project). The development would include single- and two-story homes and the associated road and utility improvements. The Project is located at north of Dakota Avenue and east of N. Fowler Avenue in the City of Fresno, California on APN 310-201-03. Access to the proposed subdivision will be from East Dakota Avenue. All required improvements are proposed and will be installed by the developer as part of the Project.

Results

The records search covered an area within one-half mile of the Project and included a review of the *National Register of Historic Places, California Points of Historical Interest, California Registry of Historic Resources, California Historical Landmarks, California State Historic Resources Inventory*, and a review of cultural resource reports on file.

The records search indicated that the subject property had never been surveyed for cultural resources and it is not known if any exist there. One cultural resource study has been conducted within a half mile of the project (Jackson 1991).

Two historic cultural resources have been recorded within a half mile of the property. These are the Gould Canal (P-10-007030) built in 1872-73, and a ca. 1927 residential property (P-10-005475).

A Sacred Lands File request was also submitted to the Native American Heritage Commission. A response dated October 19, 2021 indicates negative results (see Attachment B).

Conclusions

Based on the results of cultural records search findings and the lack of historical or archaeological resources previously identified within a half mile radius of the proposed Project, the potential to encounter subsurface cultural resources is minimal. Additionally, the Project construction would be conducted within the partially developed and previously disturbed parcel. The potential to uncover subsurface historical or archaeological deposits would be considered unlikely.

However, there is still a possibility that historical or archaeological materials may be exposed during construction. Grading and trenching, as well as other ground-disturbing actions have the potential to damage or destroy these previously unidentified and potentially significant cultural resources within the project area, including historical or archaeological resources. Disturbance of any deposits that have the potential to provide significant cultural data would be considered a significant impact. To reduce the potential impacts of the Project on cultural resources, the following measures are recommended to be included as mitigation measures. With implementation of CUL-1 and CUL-2, the Project would have a less than significant impact related to cultural resources.

CUL-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. Implementation of the mitigation measure below would ensure that the proposed Project would not cause a substantial adverse change in the significance of a historical resource.

CUL-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by

the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

Robert E. Parr, MS, RPA
Senior Archaeologist

Attachment A- Figures
Attachment B- Sacred Lands File Response by the Native American Heritage Commission

References

(all reports on file at the Southern San Joaquin Valley Information Center, California State University, Bakersfield)

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1991 An Archaeological Assessment of Fowler Avenue, Fresno County, California. (FR-00450)

TECHNICAL MEMORANDUM

Attachment A-
Figures

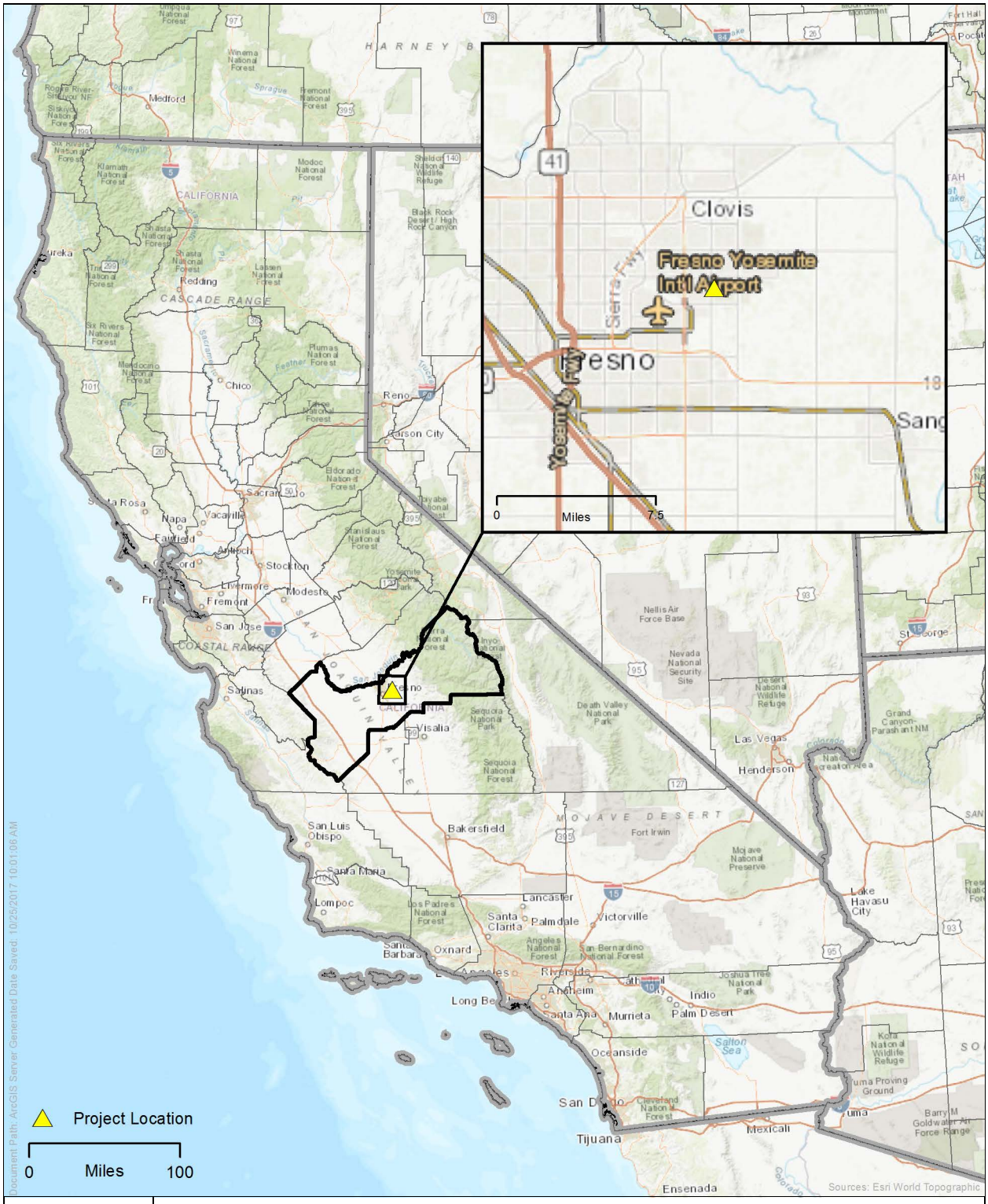

Figure - 1
Regional Location

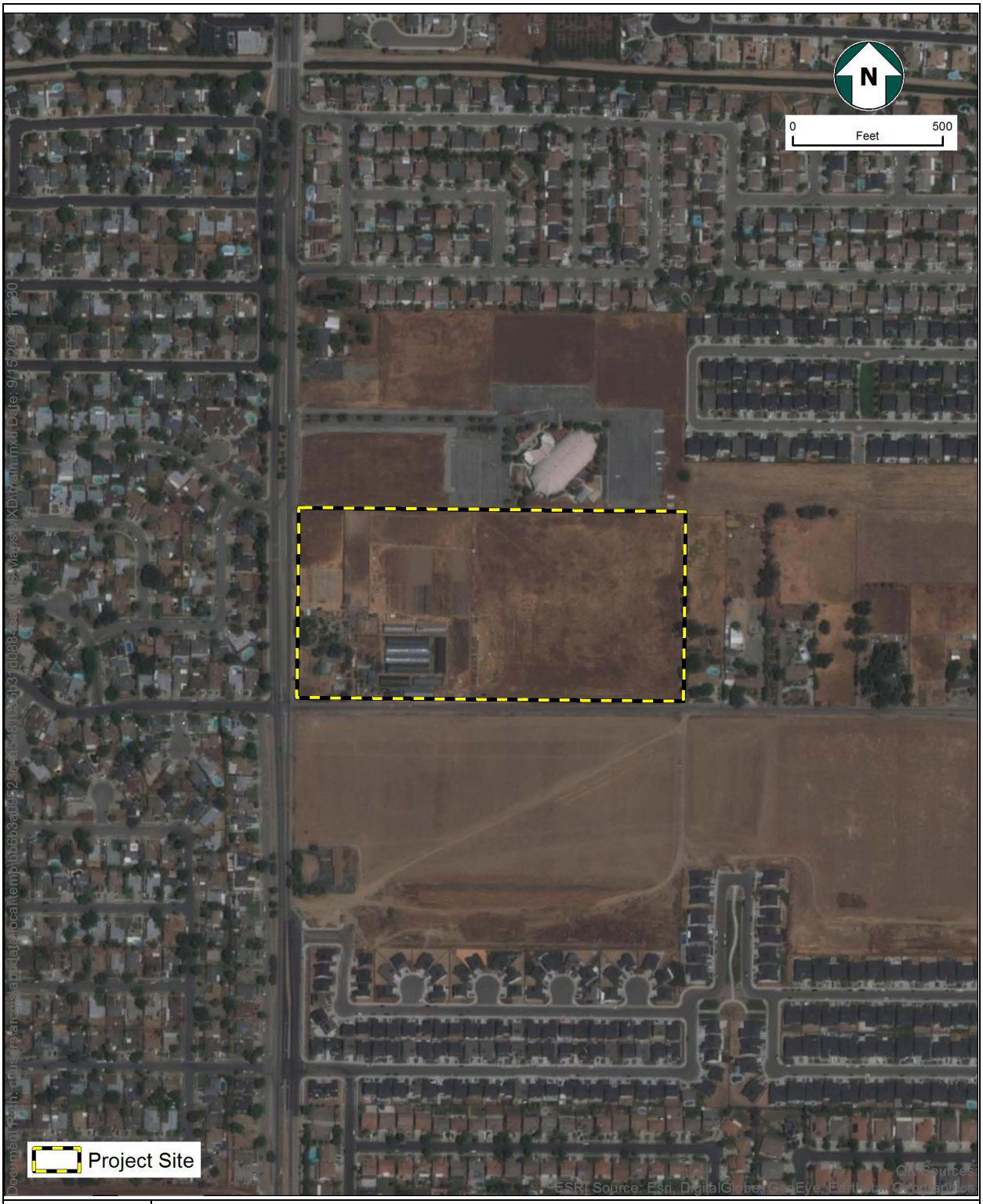

Figure - 2
Project Area

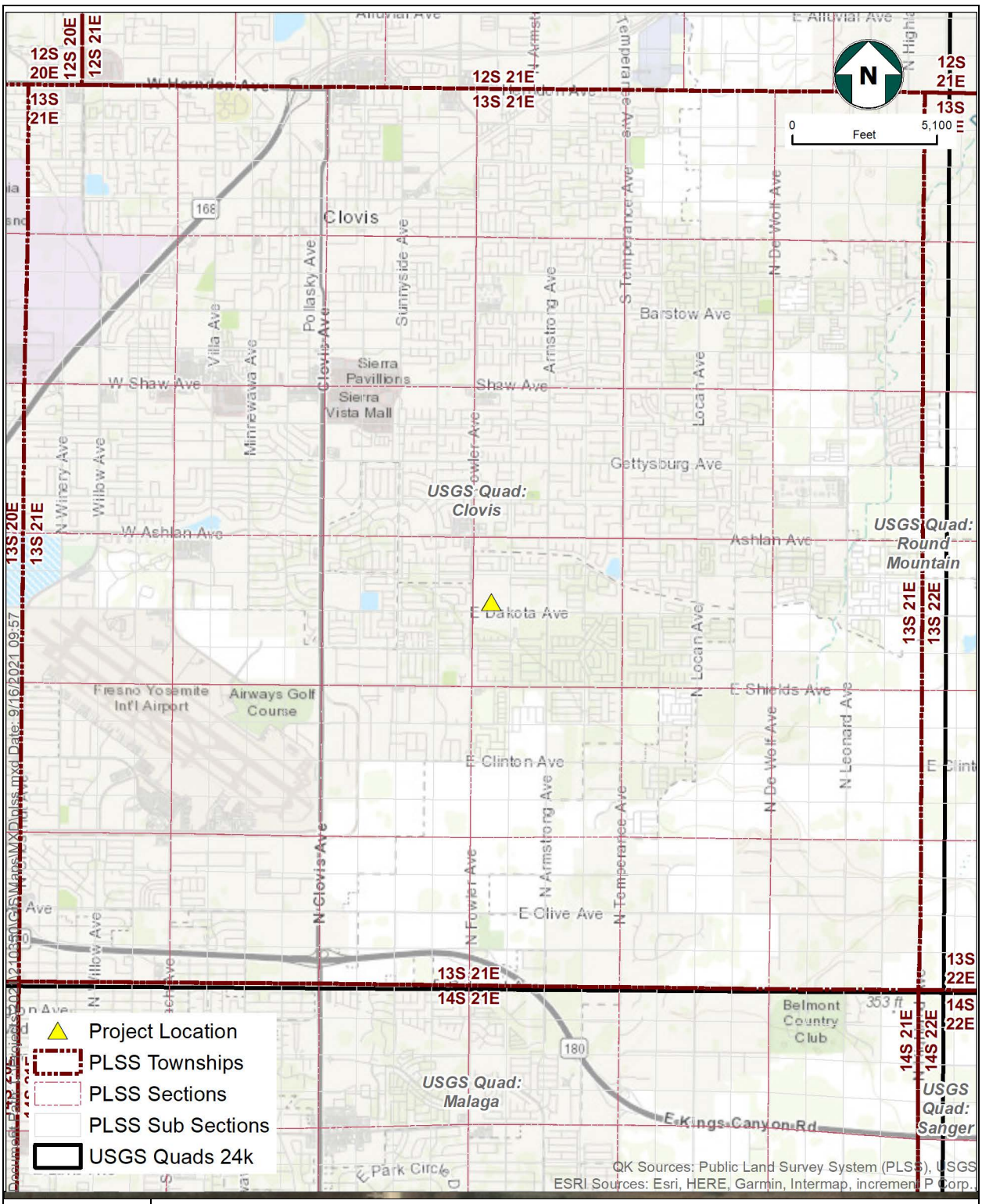

Figure - 3
PLSS/USGS Quad

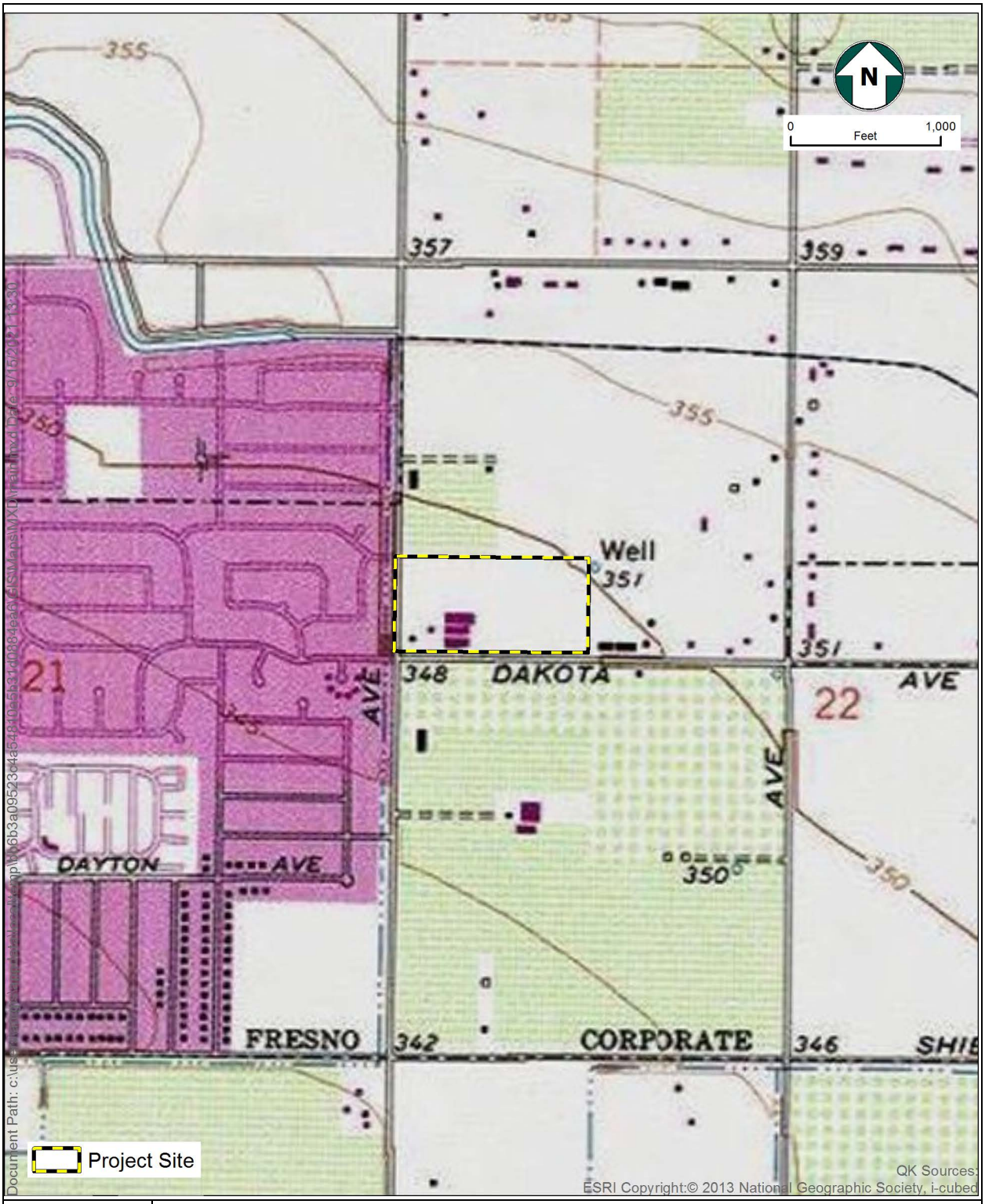

Figure - 4
Topo

TECHNICAL MEMORANDUM

Attachment B-
Sacred Lands File Response by the Native American Heritage Commission

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

October 19, 2021

Jaymie Brauer
Quad Knopf, Inc.

Via Email to: jaymie.brauer@qkinc.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Tract 6374 Project, Fresno County

Dear Ms. Brauer:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      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 in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Fresno County
10/19/2021

Big Sandy Rancheria of Western Mono Indians
Elizabeth Kipp, Chairperson
P.O. Box 337
Auberry, CA, 93602
Phone: (559) 374 - 0066
Fax: (559) 374-0055
lkipp@bsrnation.com
Western Mono

Cold Springs Rancheria of Mono Indians
Carol Bill, Chairperson
P.O. Box 209
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
coldsprgstribe@netptc.net
Mono

Dumna Wo-Wah Tribal Government
Robert Ledger, Chairperson
2191 West Pico Ave.
Fresno, CA, 93705
Phone: (559) 540 - 6346
ledgerrobert@ymail.com
Foothill Yokut
Mono

Kings River Choinumni Farm Tribe
Stan Alec,
3515 East Fedora Avenue
Fresno, CA, 93726
Phone: (559) 647 - 3227
Foothill Yokut

North Valley Yokuts Tribe
Timothy Perez,
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This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Tract 6374 Project, Fresno County.

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED PALOUTZIAN PROPERTY
EAST DAKOTA AVENUE, EAST OF FOWLER AVENUE
FRESNO, CALIFORNIA

KA PROJECT NO. 012-21125
JULY 14, 2021

Prepared for:

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GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

July 21, 2021

KA Project. No. 012-21125

Mr. Bill Walls
Lennar Central Valley
8080 N. Palm Avenue, Suite 110
Fresno, California 93711

RE: Geotechnical Engineering Investigation
Proposed Paloutzian Property
East Dakota Avenue east of Fowler Avenue
Fresno, California

Dear Mr. Walls:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
DAVID R. JAROSZ II
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TABLE OF CONTENTS

INTRODUCTION 1

PURPOSE AND SCOPE 1

PROPOSED CONSTRUCTION 2

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION 2

GEOLOGIC SETTING 2

FIELD AND LABORATORY INVESTIGATIONS 3

SOIL PROFILE AND SUBSURFACE CONDITIONS 4

GROUNDWATER 4

CONCLUSIONS AND RECOMMENDATIONS 5

Administrative Summary 5
Groundwater Influence on Structures/Construction 6
Site Preparation 6
Engineered Fill 8
Drainage and Landscaping 8
Utility Trench Backfill 9
Foundations 9
Floor Slabs and Exterior Flatwork 10
Lateral Earth Pressures and Retaining Walls 11
R-Value Test Results and Pavement Design 11
Seismic Parameters – 2019 CBC 12
Soil Cement Reactivity 13
Compacted Material Acceptance 13
Testing and Inspection 14

LIMITATIONS 14

SITE PLAN 16

LOGS OF BORINGS (1 TO 5) ..... **Appendix A**

GENERAL EARTHWORK SPECIFICATIONS ..... **Appendix B**

GENERAL PAVING SPECIFICATIONS ..... **Appendix C**

July 21, 2021 KA Project No. 012-21125

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED PALOUTZIAN PROPERTY
EAST DAKOTA AVENUE EAST OF FOWLER AVENUE
FRESNO, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed Paloutzian Property residential development on the to be located in Fresno, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, soil cement reactivity, and pavement design.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs and the boring log legend are presented in Appendix A. Appendix A also contains a description of laboratory testing phase of this study, along with laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated May 11, 2021 (KA Proposal No. P371-21) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 5 borings to depths ranging from approximately 10 to 20 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood the development will consist of approximately 10 acres for the construction of single-family residential lots. It is anticipated the buildings will be single- or two-story wood-framed structures utilizing concrete slab-on-grade. Footing loads are anticipated to be light to moderate. On-site paved areas and landscaping are also planned for the development of the project.

In the event these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is rectangle in shape and encompasses approximately 10 acres. The site is located approximately 600 feet east of N. Fowler Avenue and north of E. Dakota Avenue in Fresno, California. The site is identified by Fresno County APN 310-201-03. Residential development operations are in progress south of the site. A church is located north of the site. The remainder of the site is predominately surrounded by rural residential developments and agricultural land.

Presently, the site predominately consists of agricultural land. Some farm equipment is located on site. Overhead electrical lines and a well are on the eastern boundary of the site. It is unknown if buried utility or irrigation lines are located at or extend into the project site. Portions of the site are covered by a sparse to moderate weed growth and the surface soils have a loose consistency. The site is relatively level with no major changes in grade.

GEOLOGIC SETTING

The San Joaquin Valley, which includes the Fresno area, is a topographic and structural basin that is bounded on the east by the Sierra Nevada Mountains and on the west by the Coast Ranges. The Sierra Nevada, a fault block dipping gently southwestward, is made up of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement complex beneath the Valley. The Coast Ranges contain folded and faulted sedimentary rocks of Mesozoic and Cenozoic age, which are similar to those rocks that underlie the Valley at depth and non-conformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks. These younger rocks are mostly of continental origin and in the Fresno area, they were derived from the Sierra Nevada.

The Coast Ranges evolved as a result of folding, faulting, and accretion of diverse geologic terrains. They are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable structural feature.

Both the Sierra Nevada and Coast Range are geologically young mountain ranges and possess active and potentially active fault zones. Major active faults and fault zones occur at some distance to the east, west, and south of the Madera area. The Owens Valley Fault Zone bounds the eastern edge of the Sierra Nevada block and contains both active and potentially active faults.

Portions of the Ortigalita, Calaveras, Hayward, and Rinconada Faults, which are to the west, are considered potentially active. The San Andreas Fault is possibly the best-known fault and is located about 60 to 70 miles to the west.

There are no active fault traces in the project vicinity. Accordingly, the project area is not within an Earth Quake Fault Zone (Special Studies Zone) and will not require a special site investigation by an Engineering Geologist.

Fresno residents could feel the effects of a large seismic event on one of the nearby active or potentially active fault zones. Fresno has experienced groundshaking from earthquakes in the historical past. According to the Five County Seismic Safety Element, groundshaking of VII intensity (Modified Mercali Scale) was felt in Madera from the 1872 Owens Valley Earthquake. This is the largest known earthquake event affecting the Fresno area.

Secondary hazards from earthquakes include rupture, seiche, landslides, liquefaction, and subsidence. Since there are no known faults within the immediate area, ground rupture from surface faulting should not be a potential problem. Seiche and landslides are not hazards in the area either. Liquefaction potential (sudden loss of shear strength in a saturated, cohesionless soil) should be low since groundwater occurs below 60 feet. Lastly, deep subsidence problems may be low to moderate according to the conclusions of the Five County Seismic Safety Element. However, there are no known occurrences of structural or architectural damage due to deep subsidence in the Fresno area.

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 5 borings to depths ranging from approximately 10 to 20 feet below existing site grade, using a truck-mounted drill rig. In addition, 2 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency, obtain information regarding the engineering properties of the subsoils and to retain soil samples for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential, R-value, and moisture-density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and the results of laboratory test are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the upper soils predominately consisted of approximately 6 to 12 inches of very loose clayey sand, clayey sand/sandy clay and silty sand. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

Below the loose surface soils, approximately 2½ to 4 feet of dense to very dense clayey sand, silty sand or clayey sand/sandy clay were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 43 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 102 to 132 pcf. A representative soil sample consolidated approximately 2½ percent under a 2 ksf load when saturated. A representative soil sample had an angle of internal friction of 35 degrees. A representative sample of the clayey soil had an expansion index of 33.

Below approximately 2½ to 6 feet, layers of medium dense to very dense silty sand or clayey sand were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 22 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 96 to 125 pcf. These soils extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. Free groundwater was not encountered in our borings.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, expansive nature of the on-site upper clayey soils and existing development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

Fill material was not encountered in our borings. However, fill may be present between and beyond the boring locations. The thickness and extent of fill material was determined based on limited test borings and visual observation. It is recommended that any fill material encountered during construction be excavated and stockpiled so that the native soils can be properly prepared. Prior to fill placement Krazan & Associates, Inc. should inspect the bottom of the excavation to verify no additional removal will be required.

The site is currently utilized as agricultural land. In addition, dirt access roads are present within portions of the site. It is unknown if buried utility lines, irrigation systems, or structures are located at or extend into the project site. Demolition activities should include proper removal of any buried structures. Any surface or buried structures, including utilities or loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that demolition activities of the existing structures will disturb the upper soils. After demolition activities it is recommended that these disturbed soils be removed and/or recompacted. This compaction effort should stabilize the upper soils and locate any unsuitable or pliant areas not found during our field investigation.

The on-site upper soils consist of silty sand, clayey sand, and clayey sand/sandy clay. The clayey soils appeared to have a low swell potential. The estimated swell pressures of the clayey soils may cause minor movement effecting slabs and possible stucco or similar brittle exterior finishes. To reduce potential soil movement, it is recommended the upper 12 inches of soil within slab-on-grade and exterior flatwork areas consist of non-expansive Engineered Fill. Preliminary testing indicates the on-site soils that do not contain clay will be suitable for reuse as non-expansive Engineered Fill, provided they are cleansed of excessive organics and debris. However, it may be difficult for the grading contractor to separate these soils during mass grading operations. During construction, it is recommended that additional tests be performed on the on-site soils to verify their physical and index properties.

There are trees located on eastern boundary of the site. Tree removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be cleaned to firm native ground and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 2,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 12 inches.

Groundwater Influence on Structures/Construction

Based on our findings and historical records, it is not anticipated that groundwater will rise within the zone of structural influence or affect the construction of foundations and pavements for the project. However, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, pump, or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Some structures in the Fresno area that are founded on hardpan have experienced standing water for extended periods of time in crawl spaces below wooden floors or within sunken floor slab areas. The sources of the water were natural precipitation and landscape irrigation, and consequently, wood floor and sunken floor slab construction in hardpan soils are discouraged.

Site Preparation

General site clearing should include removal of vegetation; existing utilities; structures including foundations; basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for reuse as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

Fill material was not encountered in our borings. However, fill may be present between and beyond the boring locations. The thickness and extent of fill material was determined based on limited test borings and visual observation. It is recommended that any fill material encountered during construction be excavated and stockpiled so that the native soils can be properly prepared. Prior to fill placement Krazan & Associates, Inc. should inspect the bottom of the excavation to verify no additional removal will be required.

The site was previously utilized as agricultural land. In addition, the site is surrounded by existing developments. Associated with this development are buried structures, such as utility lines and irrigation lines that extend into portions of the site. Any surface or buried structures, including utilities and loosely backfilled excavations, encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. It is suspected that previous demolition activities disturbed the upper soils. Disturbed areas caused by demolition activities should be recompacted. Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. The resulting excavations should be backfilled with Engineered Fill.

There are trees located on eastern boundary of the site. Tree removal operations should include roots greater than 1 inch in diameter. The resulting excavations should be cleaned to firm native ground and backfilled with Engineered Fill compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Following stripping, fill removal operations, demolition activities and prior to fill placement, the exposed subgrade in building pad areas should be excavated to a depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned as necessary, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Within pavement and exterior flatwork areas, the exposed subgrade should be excavated/scarified to a depth of 12 inches, moisture-conditioned as necessary, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Limits of removal and compaction should extend 5 feet beyond buildings and 2 feet beyond flatwork and pavement. Prior to backfilling, the exposed subgrade should be proof-rolled and observed by Krazan & Associates, Inc. to verify stability. Soft or pliant areas should be excavated to firm native ground. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

The on-site upper soils consist of silty sand, clayey sand, and clayey sand/sandy clay. The clayey soils appeared to have a low swell potential. The estimated swell pressures of the clayey soils may cause minor movement effecting slabs and possible stucco or similar brittle exterior finishes. To reduce potential soil movement, it is recommended the upper 12 inches of soil within slab-on-grade and exterior flatwork areas consist of non-expansive Engineered Fill. Preliminary testing indicates the on-site soils that do not contain clay will be suitable for reuse as non-expansive Engineered Fill, provided they are cleansed of excessive organics and debris. However, it may be difficult for the grading contractor to separate these soils during mass grading operations. During construction, it is recommended that additional tests be performed on the on-site soils to verify their physical and index properties.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service, as acceptance of earthwork construction is dependent upon compaction and stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The organic-free, on-site, upper native soils and fill material are predominately clayey sand, clayey sand/sandy clay and silty sand. These soils contained varying amounts of clay. These soils will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension. Clayey soils with expansion index greater than 15 should not be used within the upper 12 inches of slab-on-grade and exterior flatwork areas. It is recommended that during construction, additional testing be performed on the on-site soils and fill material to evaluate the physical and index properties prior to reuse as Engineered Fill.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material with a plasticity index less than 10 and an expansion index less than 15. Imported Fill should be free from rocks and lumps greater than 4 inches in maximum size. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

Fill soils should be placed in lifts approximately 6 inches thick, moisture-conditioned as necessary, and compacted to achieve at least 90 percent of maximum density based on ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

Drainage and Landscaping

The ground surface should slope away from building pad and pavement areas toward appropriate drop inlets or other surface drainage devices. In accordance with Section 1804 of the 2019 California Building Code, it is recommended that the ground surface adjacent to foundations be sloped a minimum of 5 percent for a minimum distance of 10 feet away from structures, or to an approved alternative means of drainage conveyance. Swales used for conveyance of drainage and located within 10 feet of

foundations should be sloped a minimum of 2 percent. Impervious surfaces, such as pavement and exterior concrete flatwork, within 10 feet of building foundations should be sloped a minimum of 1 percent away from the structure. Drainage gradients should be maintained to carry all surface water to collection facilities and off-site. These grades should be maintained for the life of the project.

Utility Trench Backfill

Utility trenches should be excavated according to accepted engineering practice following OSHA (Occupational Safety and Health Administration) standards by a Contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the Contractor. Traffic and vibration adjacent to trench walls should be minimized and cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced, especially during or shortly following periods of precipitation.

Utility trench backfill placed in or adjacent to buildings and exterior slabs should be compacted to at least 90 percent of maximum density based on ASTM Test Method D1557. The utility trench backfill placed in pavement areas should be compacted to at least 90 percent of the maximum density based on ASTM Test Method D1557.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy and gravelly soils.

The Contractor is responsible for removing all water sensitive settlement from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structures may be supported on a shallow foundation system bearing on undisturbed native soils or Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	1,500 psf
Dead-Plus-Live Load	2,000 psf
Total Load, including wind or seismic loads	2,650 psf

The footings should have a minimum embedment depth of 12 inches below pad subgrade (soil grade) or adjacent exterior grade. Footings should have a minimum width of 12 inches, regardless of load.

The footing excavations should not be allowed to dry out at any time prior to pouring concrete. It is recommended that all footings be reinforced by at least one No. 4 reinforcing bar in both top and bottom.

The total settlement is not expected to exceed 1 inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.35 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 300 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

Concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder. The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt, or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. Exterior finish grades should be sloped a minimum of 2 percent away from all interior slab areas to preclude ponding of water adjacent to the structures. All fills required to bring the building pads to grade should be Engineered Fills.

It is recommended that the concrete slabs be reinforced at a minimum with No. 3 reinforcing bars, placed at 24 inches on center in each direction within the slabs middle third, to reduce crack separation and possible vertical offset at the cracks. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever heavy concentrated loads, heavy equipment, or machinery is anticipated.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure.

Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 40 pounds per square foot per foot of depth. Walls incapable of this deflection or are fully constrained walls against deflection may be designed for an equivalent fluid at-rest pressure of 60 pounds per square foot per foot of depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical), or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways.

During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers", vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

R-Value Test Results and Pavement Design

Two subgrade soil samples were obtained from the project site for R-value testing at the locations shown on the attached site plan. The samples were tested in accordance with the State of California Materials Manual Test Designation 301. Results of the tests are as follows:

Sample	Depth	Description	R-Value at Equilibrium
1	12-24"	Silty Sand (SM)	53
2	12-24"	Silty Sand (SM)	50

The test results are moderate and indicate good subgrade support characteristics under dynamic traffic loads. The following table shows the recommended pavement sections for various traffic indices. It is recommended additional R-values be performed on the street subgrade soils once grade has been established. The pavement sections should be updated based on these R-values once available.

Traffic Index	Asphaltic Concrete	Class II Aggregate Base*	Compacted Subgrade**
4.0	2.0"	4.0"	12.0"
4.5	2.5"	4.0"	12.0"
5.0	2.5"	4.0"	12.0"
5.5	3.0"	4.0"	12.0"

6.0	3.0"	4.0"	12.0"
6.5	3.5"	4.0"	12.0"
7.0	4.0"	4.5"	12.0"
7.5	4.0"	5.5"	12.0"

** 95% compaction based on ASTM Test Method D1557 or CAL 216*
*** 90% compaction based on ASTM Test Method D1557 or CAL 216*

If traffic indices are not available, an estimated (typical value) index of 4.5 may be used for light automobile traffic, and an index of 7.0 may be used for light truck traffic.

The following recommendations are for light-duty and heavy-duty Portland Cement Concrete Pavement Sections based on the design procedures developed by the Portland Cement Association.

PORTLAND CEMENT PAVEMENT
LIGHT DUTY

Traffic Index	Portland Cement Concrete***	Class II Aggregate Base*	Compacted Subgrade**
4.5	5.0"	--	12.0"

HEAVY DUTY

Traffic Index	Portland Cement Concrete***	Class II Aggregate Base*	Compacted Subgrade**
7.0	6.5"	--	12.0"

** 95% compaction based on ASTM Test Method D1557 or CAL 216*
*** 90% compaction based on ASTM Test Method D1557 or CAL 216*
****Minimum compressive strength of 3000 psi*

It is recommended that any uncertified fill material encountered within pavement areas be removed and/or recompacted. The fill material should be moisture-conditioned to near optimum moisture and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. As an alternative, the Owner may elect not to recompact the existing fill within paved areas. However, the Owner should be aware that the paved areas may settle, which may require annual maintenance. At a minimum, it is recommended that the upper 12 inches of subgrade soil be moisture-conditioned as necessary and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Seismic Parameters – 2019 California Building Code

The Site Class per Section 1613 of the 2019 California Building Code (2019 CBC) and ASCE 7-16, Chapter 20 is based upon the site soil conditions. It is our opinion that a Site Class D is most consistent with the subject site soil conditions. For seismic design of the structures based on the seismic provisions of the 2019 CBC, we recommend the following parameters:

Seismic Item	Value	CBC Reference
Site Class	D	Section 1613.2.2
Site Coefficient F_a	1.368	Table 1613.2.3 (1)
S_S	0.540	Section 1613.2.1
S_{MS}	0.739	Section 1613.2.3
S_{DS}	0.493	Section 1613.2.4
Site Coefficient F_v	2.168	Table 1613.2.3 (2)
S_1	0.216	Section 1613.2.1
S_{M1}	0.468	Section 1613.2.3
S_{D1}	0.312	Section 1613.2.4
T_S	0.633	Section 1613.2

* Based on Equivalent Lateral Force (ELF) Design Procedure being used.

Soil Cement Reactivity

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete (or stucco) and the soil. HUD/FHA and CBC have developed criteria for evaluation of sulfate levels and how they relate to cement reactivity with soil and/or water.

Soil samples were obtained from the site and tested in accordance with State of California Materials Manual Test Designation 417. The sulfate concentrations detected from these soil samples were less than 150 ppm and are below the maximum allowable values established by HUD/FHA and CBC. However, it is recommended that a Type II cement be used within the concrete to compensate for sulfate reactivity with the cement.

Compacted Material Acceptance

Compaction specifications are not the only criteria for acceptance of the site grading or other such activities. The compaction test is the most universally recognized test method for assessing the performance of the Grading Contractor. However, the numerical test results from the compaction test cannot be used to predict the engineering performance of the compacted material. Therefore, the acceptance of compacted materials will also be dependent on the stability of that material. The Soils Engineer has the option of rejecting any compacted material regardless of the degree of compaction if that material is considered to be unstable or if future instability is suspected. A specific example of rejection of fill material passing the required percent compaction is a fill which has been compacted with an in-situ moisture content significantly less than optimum moisture. This type of dry fill (brittle fill) is susceptible to future settlement if it becomes saturated or flooded.

Testing and Inspection

A representative of Krazan & Associates, Inc., should be present at the site during the earthwork activities to confirm that actual subsurface conditions are consistent with the exploratory fieldwork. This activity is an integral part of our services as acceptance of earthwork construction is dependent upon compaction testing and stability of the material. This representative can also verify that the intent of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc., will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences improve. Although your site was analyzed using the most appropriate current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to improvements in the field of Soils Engineering, physical changes in the site either due to excavation or fill placement, new agency regulations or possible changes in the proposed structure after the time of completion of the soils report may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that two years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations can be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations can be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any environmental site assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater or atmosphere, or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed are strictly for descriptive purposed and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical data presented herewith is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such data and interpretation cannot be superseded by future geotechnical developments. We emphasize that this report is valid for this project as outlined above and should not be used for any other site.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Remington Alexander
Project Engineer

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

RA/DRJ:ht

APPROXIMATE BORING LOCATION

APPROXIMATE R-VALUE LOCATION

SITE MAP	Scale: NTS	Date: July 2021	Krazan GEOTECHNICAL ENGINEERING
Paloutzian Property **East Dakota Avenue and Fowler Avenue** **Fresno, California**	Drawn by: HT	Approved by: DJ	
	Project No. 012-21125	Figure No. 1	

APPENDIX A

FIELD AND LABORATORY INVESTIGATIONS

Field Investigation

The field investigation consisted of a surface reconnaissance and a subsurface exploratory program. Five 4½-inch diameter exploratory borings were advanced. The boring locations are shown on the site plan.

The soils encountered were logged in the field during the exploration and, with supplementary laboratory test data, are described in accordance with the Unified Soil Classification System.

Modified standard penetration tests were performed at selected depths. This test represents the resistance to driving a 2½-inch diameter split barrel sampler. The driving energy was provided by a hammer weighing 140 pounds falling 30 inches. Relatively undisturbed soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the auger cuttings. All samples were returned to our Clovis laboratory for evaluation.

Laboratory Investigation

The laboratory investigation was programmed to determine the physical and mechanical properties of the foundation soil underlying the site. Test results were used as criteria for determining the engineering suitability of the surface and subsurface materials encountered.

In-situ moisture content, dry density, consolidation, direct shear, and sieve analysis tests were completed for the undisturbed samples representative of the subsurface material. Expansion index and R-value tests were completed for select bag samples obtained from the auger cuttings. These tests, supplemented by visual observation, comprised the basis for our evaluation of the site material.

The logs of the exploratory borings and laboratory determinations are presented in this Appendix.

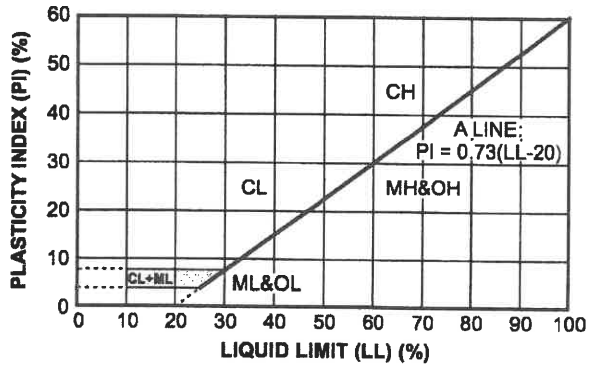
UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART			
COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)		
		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)		
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)		
		SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)		
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

CONSISTENCY CLASSIFICATION	
Description	**Blows per Foot**
Granular Soils	
Very Loose	< 5
Loose	5 – 15
Medium Dense	16 – 40
Dense	41 – 65
Very Dense	> 65
Cohesive Soils	
Very Soft	< 3
Soft	3 – 5
Firm	6 – 10
Stiff	11 – 20
Very Stiff	21 – 40
Hard	> 40

GRAIN SIZE CLASSIFICATION		
Grain Type	*Standard Sieve Size*	*Grain Size in Millimeters*
Boulders	Above 12 inches	Above 305
Cobbles	12 to 13 inches	305 to 76.2
Gravel	3 inches to No. 4	76.2 to 4.76
Coarse-grained	3 to ¾ inches	76.2 to 19.1
Fine-grained	¾ inches to No. 4	19.1 to 4.76
Sand	No. 4 to No. 200	4.76 to 0.074
Coarse-grained	No. 4 to No. 10	4.76 to 2.00
Medium-grained	No. 10 to No. 40	2.00 to 0.042
Fine-grained	No. 40 to No. 200	0.042 to 0.074
Silt and Clay	Below No. 200	Below 0.074

PLASTICITY CHART



Log of Boring B1

Project: Paloutzian Property

Project No: 012-21125

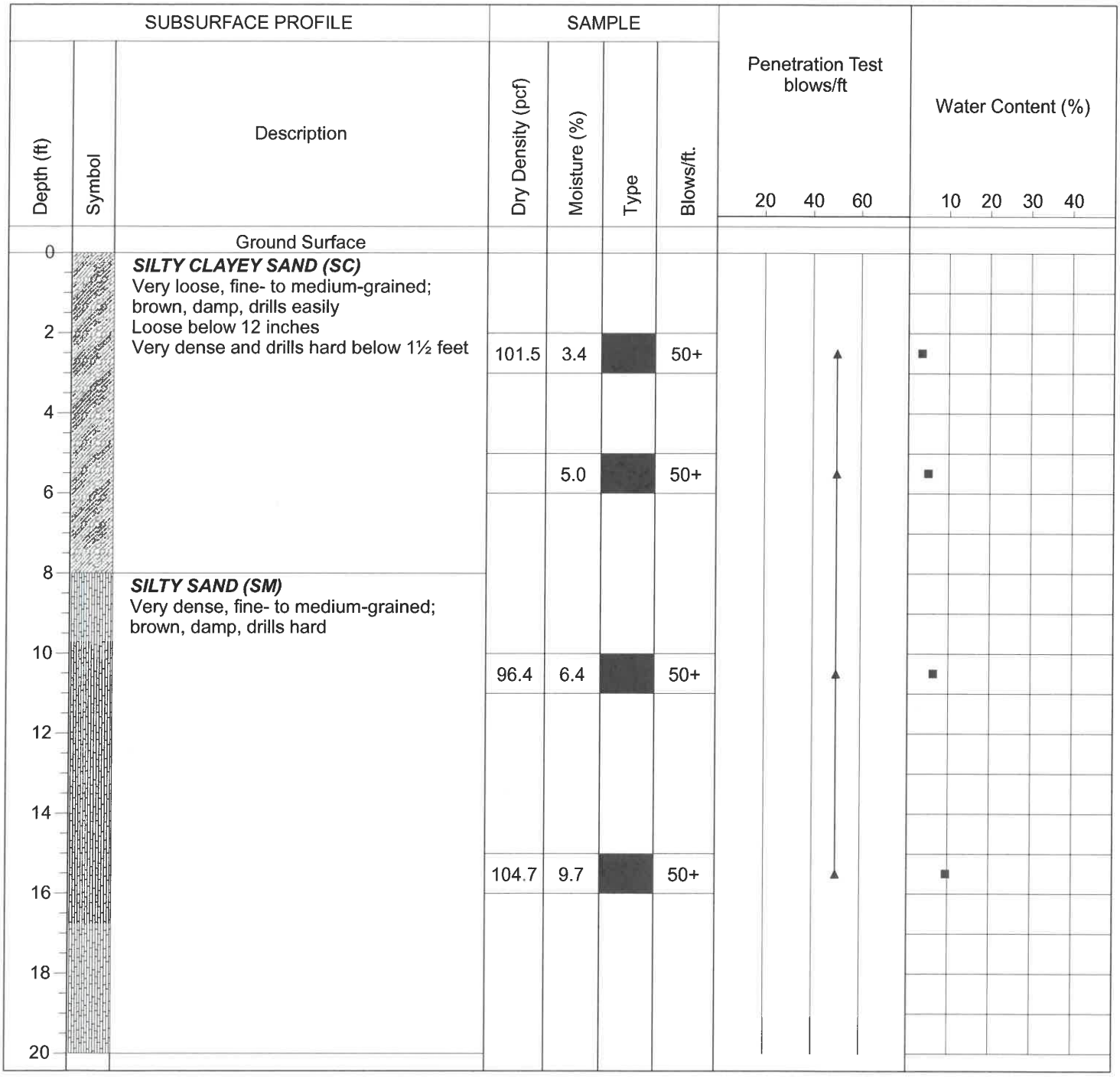
Client: Lennar Homes of California, Inc.

Figure No.: A-1

Location: Dakota Avenue and Fowler Avenue, Fresno, California

Logged By: Wayne Andrade

Depth to Water> **Initial:** None **At Completion:** None



Drill Method: Solid Flight

Drill Date: 6-22-21

Drill Rig: CME 45C-4

Krazan and Associates

Hole Size: 4½ Inches

Driller: Jim Watts

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B2

Project: Paloutzian Property

Project No: 012-21125

Client: Lennar Homes of California, Inc.

Figure No.: A-2

Location: Dakota Avenue and Fowler Avenue, Fresno, California

Logged By: Wayne Andrade

Depth to Water> **Initial:** None **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
2		***SILTY SAND (SM)*** Very loose, fine- to medium-grained with trace CLAY; brown, damp, drills easily Loose below 12 inches Very dense and drills hard below 1½ feet	106.1	4.8		50+
4						
6		***SILTY SAND (SM)*** Medium dense, fine- to medium-grained; light brown/brown, damp, drills easily Very dense and drills hard below 7 feet	113.4	4.6		23
8			109.7	4.6		50+
10						
12						
14						
16		End of Borehole				
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Solid Flight

Drill Rig: CME 45C-4

Driller: Jim Watts

Krazan and Associates

Drill Date: 6-22-21

Hole Size: 4½ Inches

Elevation: 15 Feet

Log of Boring B3

Project: Paloutzian Property

Project No: 012-21125

Client: Lennar Homes of California, Inc.

Figure No.: A-3

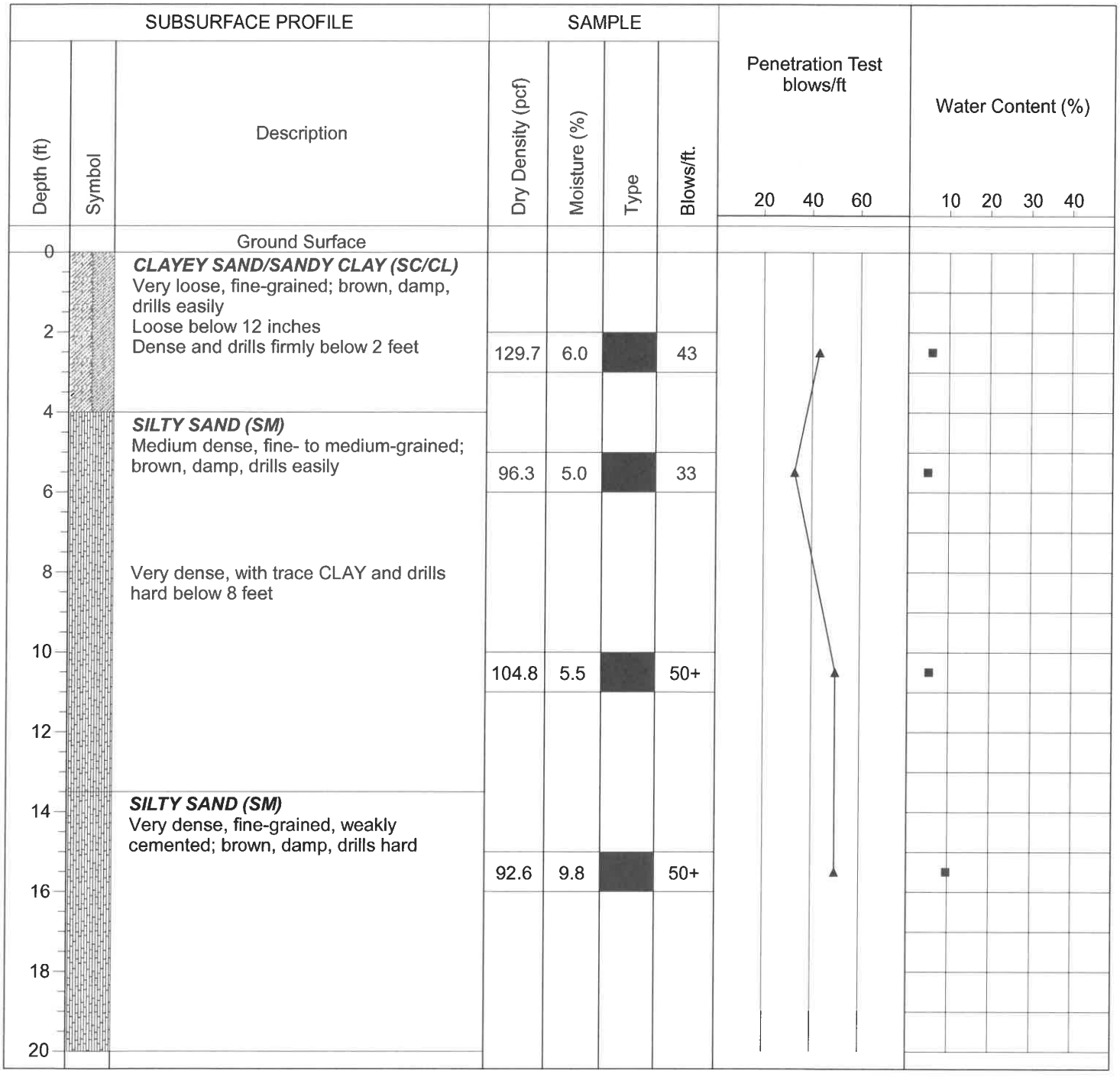
Location: Dakota Avenue and Fowler Avenue, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None



Drill Method: Solid Flight

Drill Date: 6-22-21

Drill Rig: CME 45C-4

Krazan and Associates

Hole Size: 4½ Inches

Driller: Jim Watts

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B4

Project: Paloutzian Property

Project No: 012-21125

Client: Lennar Homes of California, Inc.

Figure No.: A-4

Location: Dakota Avenue and Fowler Avenue, Fresno, California

Logged By: Wayne Andrade

Depth to Water> **Initial:** None **At Completion:** None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
0		Ground Surface						
		CLAYEY SAND (SC) Very loose, fine- to medium-grained; brown, damp, drills easily						
2		Loose below 12 inches						
		Very dense and drills hard below 1½ feet	104.5	5.5	■	50+		■
		Medium dense, light brown and drills easily below 3½ feet						
4								
			101.7	4.8	■	22		■
6								
8								
10		End of Borehole						
12								
14								
16								
18								
20								

Drill Method: Solid Flight

Drill Rig: CME 45C-4

Driller: Jim Watts

Krazan and Associates

Drill Date: 6-22-21

Hole Size: 4½ Inches

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B5

Project: Paloutzian Property

Project No: 012-21125

Client: Lennar Homes of California, Inc.

Figure No.: A-5

Location: Dakota Avenue and Fowler Avenue, Fresno, California

Logged By: Wayne Andrade

Depth to Water> **Initial:** None **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY CLAYEY SAND (SC)*** Very loose, fine- to medium-grained; brown, damp, drills easily Loose below 12 inches Very dense and drills hard below 2 feet				
2			132.0	4.1		50+
4		***CLAYEY SAND (SC)*** Dense, fine- to medium-grained; brown, damp, drills firmly				
6			125.6	10.6		44
10		End of Borehole				

Penetration Test blows/ft: 20, 40, 60

Water Content (%): 10, 20, 30, 40

Drill Method: Solid Flight

Drill Rig: CME 45C-4

Driller: Jim Watts

Krazan and Associates

Drill Date: 6-22-21

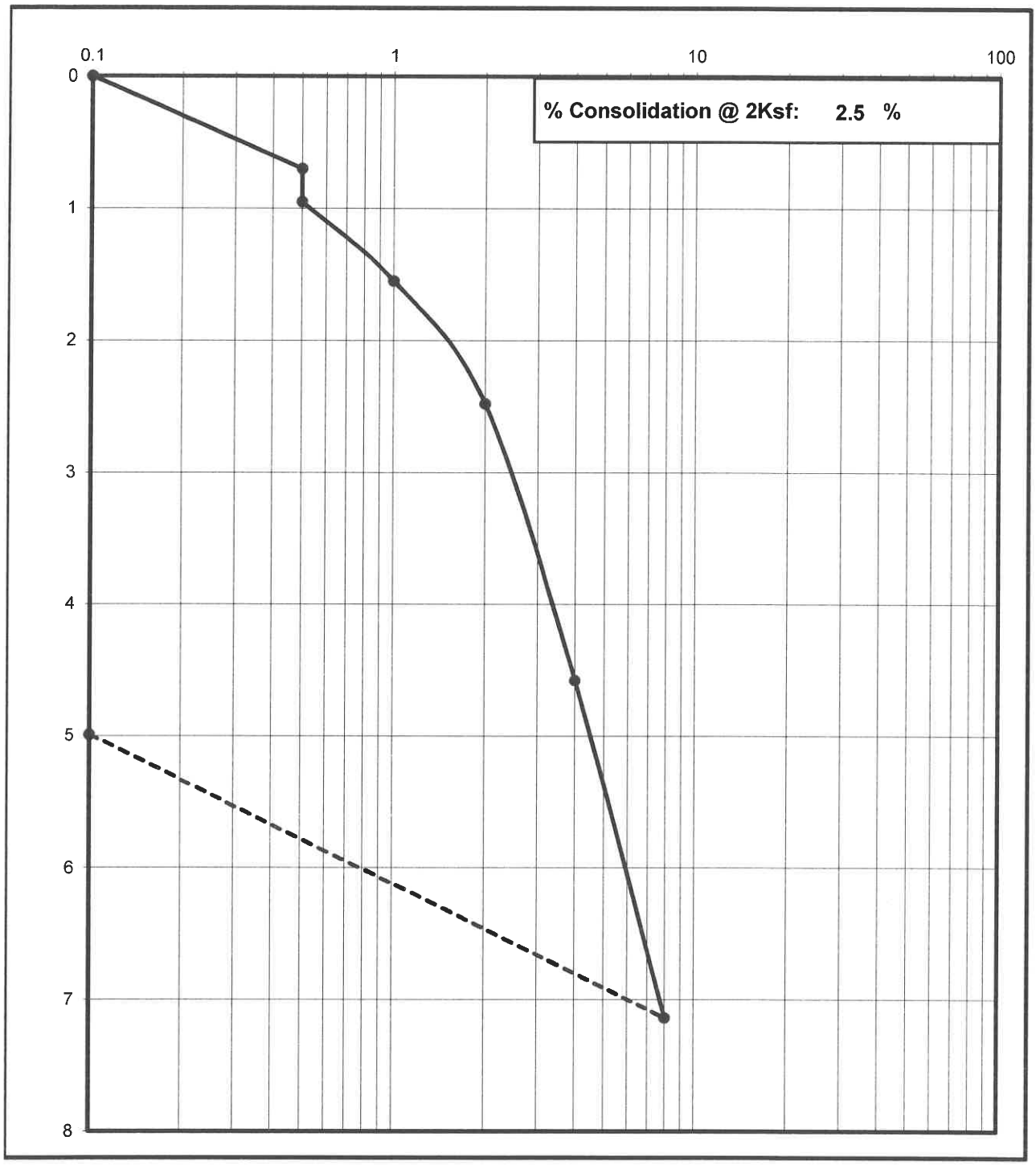
Hole Size: 4½ Inches

Elevation: 10 Feet

Sheet: 1 of 1

Consolidation Test

Project No	Boring No. & Depth	Date	Soil Classification
012-21125	B3 @ 2-3'	7/2/2021	SC-CL



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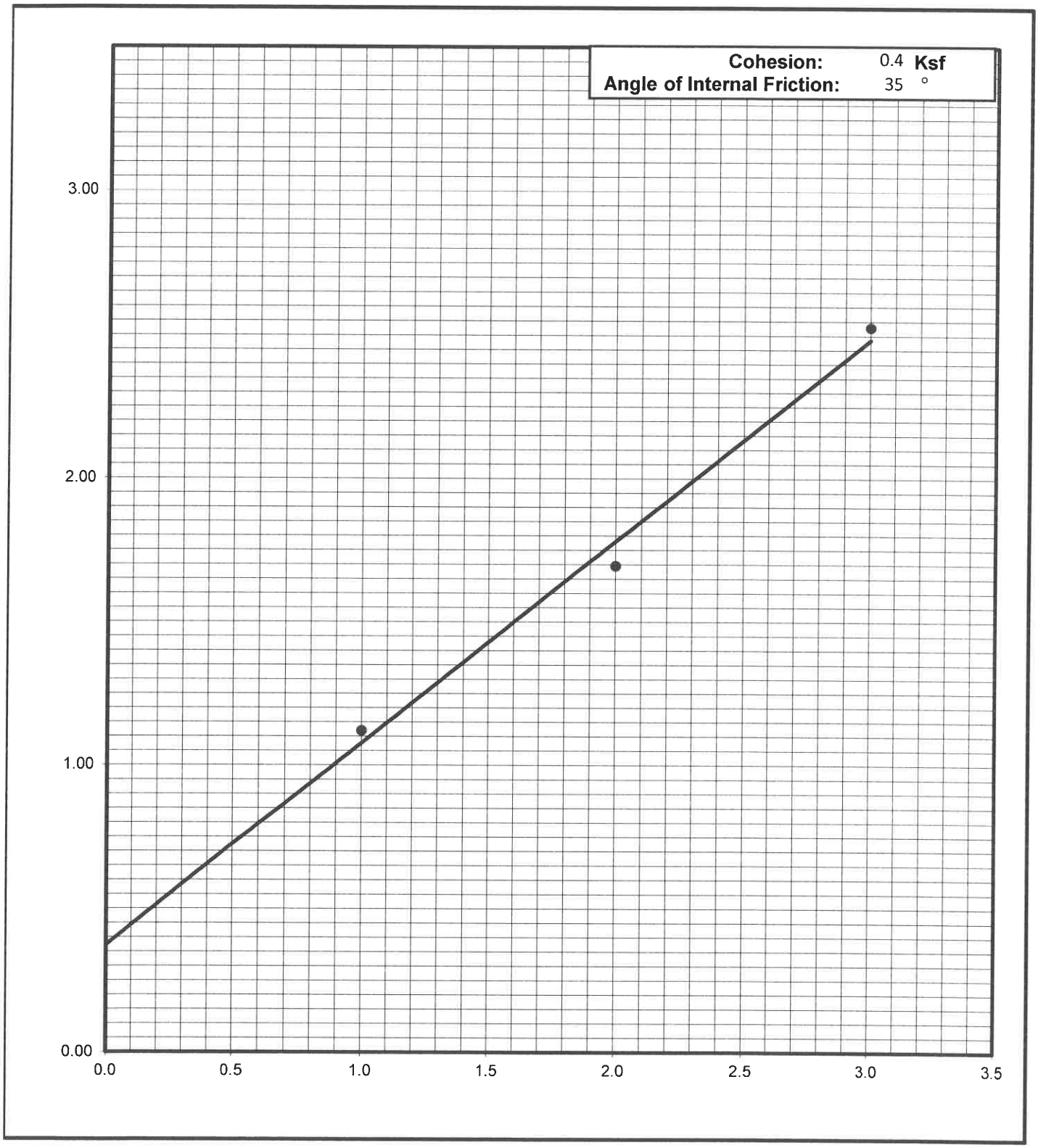
Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
012-21125	B5 @ 2-3'	SC	7/2/2021



Krazan Testing Laboratory

Grain Size Analysis

(Unified Soils Classification)

Project Name	Paloutzian Property
Project Number	012-21125
Soil Classification	SC-CL
Sample Number	B3 @ 2-3'

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Expansion Index Test

ASTM D - 4829

Project Number	: 012-21125
Project Name	: Paloutzian Property
Date	: 7/2/2021
Sample location/ Depth	: B1 @ 0-4'
Sample Number	: X1
Soil Classification	: SC

Trial #	**1**	**2**	**3**
Weight of Soil & Mold, gms	785.5		
Weight of Mold, gms	369.8		
Weight of Soil, gms	415.7		
Wet Density, Lbs/cu.ft.	125.4		
Weight of Moisture Sample (Wet), gms	200.0		
Weight of Moisture Sample (Dry), gms	184.0		
Moisture Content, %	8.7		
Dry Density, Lbs/cu.ft.	115.3		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	51.0		

Time	Inital	30 min	1 hr	6hrs	12 hrs	24 hrs
Dial Reading	0	--	--	--	--	0.0327

Expansion Index $_{measured}$ = 32.7

Expansion Index = 33

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

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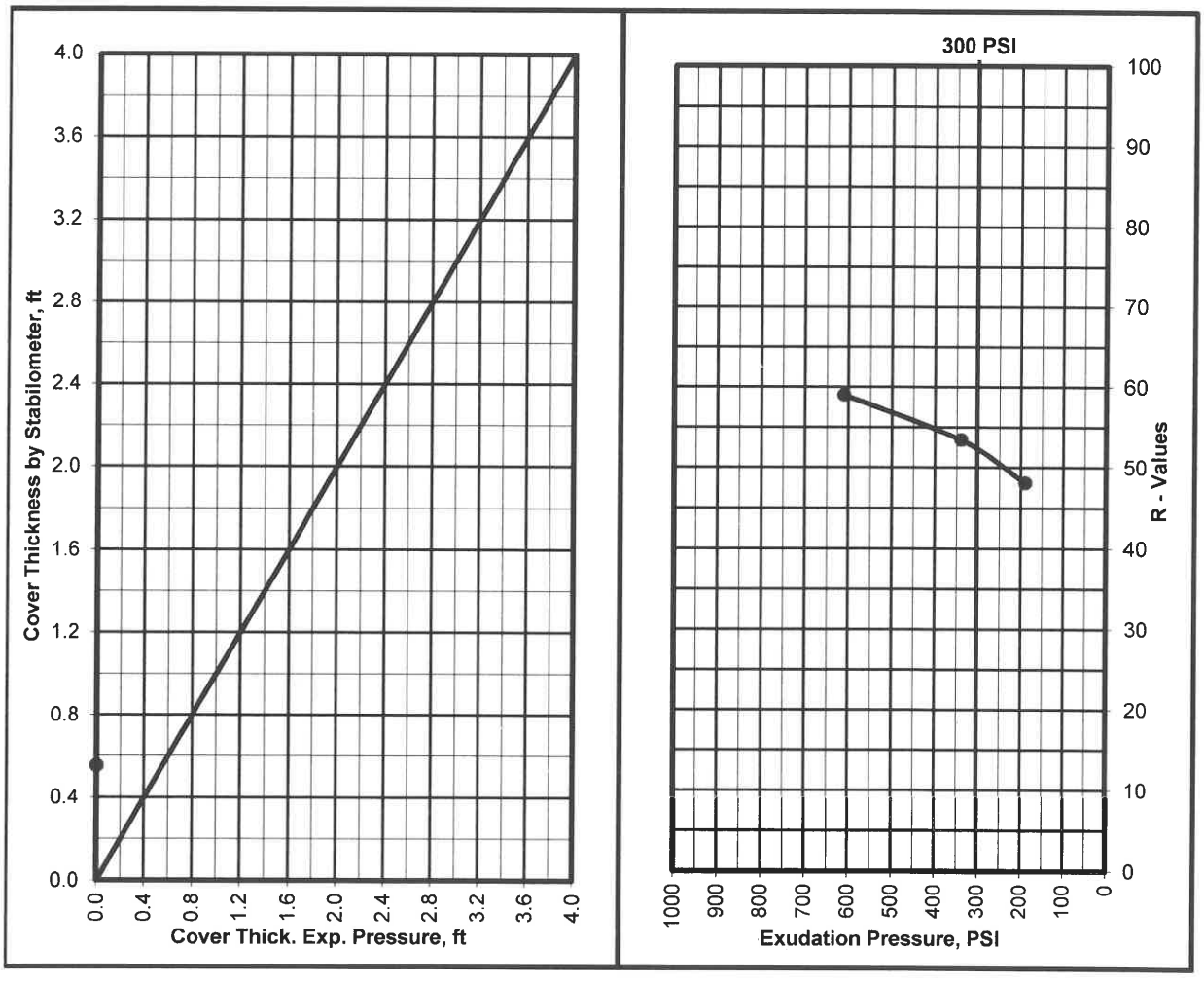
R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	012-21125
Project Name	:	Paloutzian Property
Date	:	7/13/2021
Sample Location/Curve Number	:	RV#1
Soil Classification	:	SM

TEST	A	B	C
Percent Moisture @ Compaction, %	9.5	8.5	8.1
Dry Density, lbm/cu.ft.	130.7	132.6	133.0
Exudation Pressure, psi	190	340	610
Expansion Pressure, (Dial Reading)	0	0	0
Expansion Pressure, psf	0	0	0
Resistance Value R	48	53	59

R Value at 300 PSI Exudation Pressure	**53**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



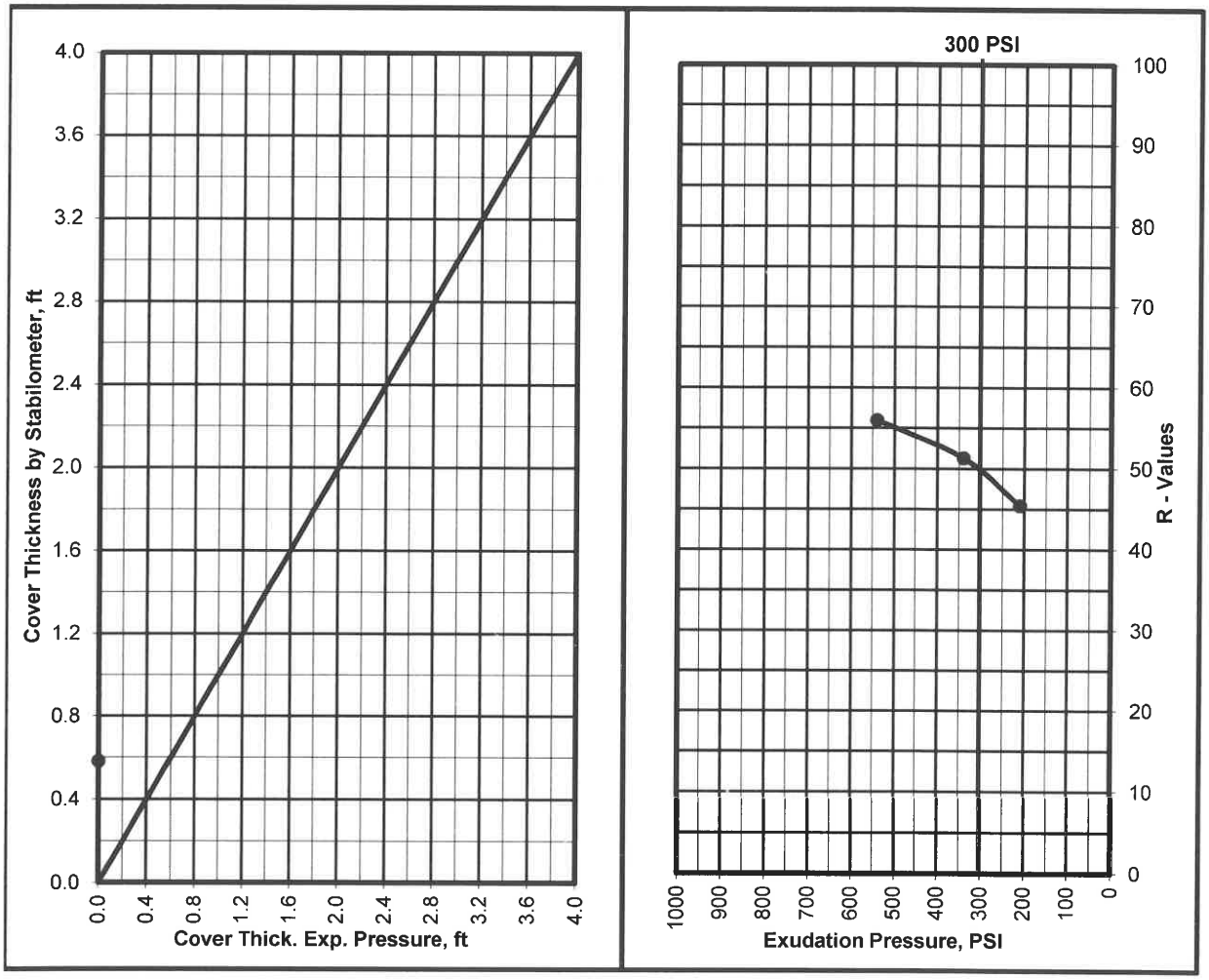
Krazan Testing Laboratory

R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	012-21125
Project Name	:	Paloutzian Property
Date	:	7/13/2021
Sample Location/Curve Number	:	RV#2
Soil Classification	:	SM

TEST	A	B	C
Percent Moisture @ Compaction, %	8.8	7.8	8.3
Dry Density, lbm/cu.ft.	132.0	133.9	132.7
Exudation Pressure, psi	210	540	340
Expansion Pressure, (Dial Reading)	0	0	0
Expansion Pressure, psf	0	0	0
Resistance Value R	45	56	51

R Value at 300 PSI Exudation Pressure	**50**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



Krazan Testing Laboratory

APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including but not limited to the furnishing of all labor, tools, and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans, and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Inc., hereinafter known as the Soils Engineer and/or Testing Agency. Attainment of design grades when achieved shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary readjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to a density not less than 90 percent relative compaction based on ASTM Test Method D1557 or CAL-216, as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be as determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the soil report.

The Contractor shall make his own interpretation of the data contained in said report, and the Contractor shall not be relieved of liability under the Contract documents for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or windblown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing and the preparations of foundation materials for receiving fill.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter, and all other matter determined by the Soils Engineer to be deleterious or otherwise unsuitable. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots larger than 1 inch. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations should not be permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

SUBGRADE PREPARATION: Surfaces to receive Engineered Fill, building or slab loads shall be prepared as outlined above, excavated/scarified to a depth of 12 inches, moisture-conditioned as necessary, and compacted to 90 percent relative compaction.

Loose soil areas, areas of uncertified fill, and/or areas of disturbed soils shall be moisture-conditioned as necessary and recompacted to 90 percent relative compaction. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any of the fill material.

EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. However, compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer.

Both cut and fill areas shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill are as specified.

APPENDIX C

PAVEMENT SPECIFICATIONS

1. DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications": hereinafter referred to is the 2018 Standard Specifications of the State of California, Department of Transportation, and the "Materials Manual" is the Materials Manual of Testing and Control Procedures, State of California, Department of Public Works, Division of Highways. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as defined in the applicable tests outlined in the Materials Manual.

2. SCOPE OF WORK - This portion of the work shall include all labor, materials, tools, and equipment necessary for, and reasonably incidental to the completion of the pavement shown on the plans and as herein specified, except work specifically noted as "Work Not Included."

3. PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 90 percent. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

4. UNTREATED AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, 1½ inches maximum size. The aggregate base material shall be spread and compacted in accordance with Section 26 of the Standard Specifications. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent.

5. AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class 2 material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent, and it shall be spread and compacted in accordance with Section 25 of the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

6. ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10. The mineral aggregate shall be Type B, ½ inch maximum size, medium grading and shall conform to the requirements set forth in Section 39. The drying, proportioning and mixing of the materials shall conform to Section 39.

The prime coat, spreading and compacting equipment and spreading and compacting mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50° F. The surfacing shall be rolled with a combination of steel wheel and pneumatic rollers, as described in Section 39-6. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

7. FOG SEAL COAT - The fog seal (mixing type asphaltic emulsion) shall conform to and be applied in accordance with the requirements of Section 37.

June 14, 2021 Project No. 014-21099

Mr. Bill Walls
Lennar Homes of California, Inc.
8080 N. Palm Avenue, Suite 110
Fresno, California 93711
bill.walls@lennar.com

RE: Phase I Environmental Site Assessment
Paloutzian Property
3518 N. Fowler Avenue (Anchor Address)
A Portion of APN 310-201-03
Fresno, California 93727

Dear Mr. Walls:

Krazan & Associates, Inc., (Krazan) completed a Phase I Environmental Site Assessment at the referenced site summarized in a report dated June 14, 2021. We appreciate the opportunity to serve your environmental due diligence needs. During the course of this assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13. However, the following potential areas of concern (PAOCs) and site development issues were identified in connection with the subject site:

PAOCs

- Krazan's review of historical aerial photographs indicates that two structures, the southernmost of which appears to be relatively small, were located in the northeastern corner of the subject site from at least 1946 until at least 1962. Additionally, historical aerial photographs of the subject site vicinity indicate that part/all of the subject site and the surrounding properties were utilized for agricultural purposes during this time interval. Ms. Lucy Paloutzian, one of the owners of the subject site familiar with the subject site since the early-1960s, stated that a well house was located in the northeastern portion of the subject site historically, and this portion of the subject site is currently occupied by agricultural water wells and irrigation water conveyance features. The southernmost structure noted in the referenced historical aerial photographs is of a size consistent with a well house and its location is consistent with an existing former agricultural water well observed during Krazan's site reconnaissance. Ms. Paloutzian stated that she did not recall the presence of a second structure and thus has no knowledge of the use/purpose of the larger second structure.

  Ms. Paloutzian indicated that she is not aware of underground storage tanks (USTs) being located at the subject site, and no records of USTs for the subject site are on file with the local regulatory agencies. However, USTs on rural or agricultural properties historically have been exempt from requirements for registration with regulatory agencies. Krazan's experience with such properties has shown that it is not uncommon for property owners/operators to install USTs for their

convenience, especially in the vicinity of structures, which are undocumented and whose presence would remain unknown in spite of the standard data research conducted in the course of this Phase I ESA. It is therefore possible that subsurface features such as unregistered USTs may exist in the vicinity of the former on-site structures which remain unknown based upon the absence of any regulatory, municipality, interview data, or other evidence indicating their presence or location. Consequently, despite an absence of data suggesting their presence, the presence or absence of USTs associated with the subject site prior to the current owner's knowledge of the subject site is unknown.

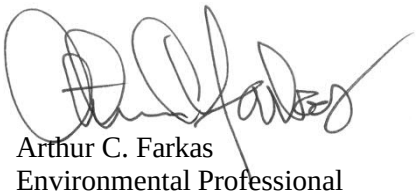
For a higher level of due diligence, Krazan recommends conducting a Phase II limited geophysical survey in the vicinity of the former on-site structures to assess the presence or absence of subsurface metallic anomalies characteristic of underground storage tanks. If a UST is identified, it should be removed in accordance with State and local guidelines.

Site Development Issues

- During Krazan's June 9, 2021 site reconnaissance, a non-operational apparent former agricultural water well, an apparent agricultural water well equipped with a submersible pump, and an apparent subsurface irrigation water conveyance feature which Ms. Paloutzian stated she believed to be an agricultural water well were observed in the northeastern portion of the subject site. If the on-site water wells are not to be used in the planned redevelopment of the subject site, they should be properly destroyed in accordance with State and local guidelines.

Our firm specializes in full-service Site Development Engineering with considerable project management experience. When you are interested in proceeding with the recommended work, Krazan can evaluate your unique circumstances and prepare a Phase II Proposal/Cost Estimate for the additional assessment including the proposed scope of work, budget, and anticipated project schedule. If you have any questions regarding the information presented in this report, please call me at (559) 348-2200.

Respectfully Submitted,
KRAZAN & ASSOCIATES, INC.



Arthur C. Farkas
Environmental Professional

ACF/mlt

PHASE I ENVIRONMENTAL SITE ASSESSMENT PALOUTZIAN PROPERTY 3518 N. FOWLER AVENUE (ANCHOR ADDRESS) A PORTION OF APN 310-201-03 FRESNO, CALIFORNIA 93727

Pursuant to ASTM E 1527-13

Project No. 014-21099
June 14, 2021

Prepared for:
Mr. Bill Walls
Lennar Homes of California, Inc.
8080 N. Palm Avenue, Suite 110
Fresno, California 93711
(559) 437-4269

Prepared by:
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Krazan & ASSOCIATES, INC.
SITE DEVELOPMENT ENGINEERS

TABLE OF CONTENTS
Project No. 014-21099

1.0 EXECUTIVE SUMMARY 1

2.0 PURPOSE AND SCOPE OF ASSESSMENT 2

2.1 Purpose 2
2.2 Scope of Work 2

3.0 SITE DESCRIPTION 3

3.1 Geology and Hydrogeology 4

4.0 SITE RECONNAISSANCE 4

4.1 Observations 4
4.2 Utilities 6
4.3 Adjacent Streets and Property Usage 7
4.4 ASTM Non-Scope Considerations 7

5.0 USER-PROVIDED INFORMATION 10

5.1 Title Report 10
5.2 Phase I Environmental Site Assessment User Questionnaire 11

6.0 SITE USAGE SURVEY 12

6.1 Site History 12
6.2 Interviews 15
6.3 Agricultural Chemicals 16
6.4 Regulatory Agency Interface 17
6.5 Regulatory Agency Lists Review 18

7.0 DISCUSSION OF FINDINGS 24

7.1 Evaluation of Data Gaps/Data Failure 25

8.0 CONCLUSIONS/OPINIONS 26

9.0 RELIANCE 27

10.0 LIMITATIONS 27

11.0 QUALIFICATIONS 29

REFERENCES 30

GLOSSARY OF TERMS 32

Maps
Figure No. 1: Vicinity Map ..... following Glossary of Terms
Figure No. 2: Site Map ..... following Figure No. 1
Figure No. 3: Topographic Map ..... following Figure No. 2

Color Photographs
Photographs ..... following Figure No. 3

TABLE OF CONTENTS (continued)
Project No. 014-21099

Appendices

Title Company Preliminary Title Report ..... A
Phase I ESA User Questionnaire ..... B
Environmental Data Resources, Inc. (EDR), Historical Aerial Photographs C
EDR, Cross-Reference Directory Report ..... D
EDR, Sanborn Fire Insurance Map *No Coverage* Letter ..... E
Phase I ESA Owner Questionnaire ..... F
EDR, Radius Map Report ..... G
Professional Resumes ..... H

June 14, 2021 Project No. 014-21099

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SITE ASSESSMENT
PALOUTZIAN PROPERTY
3518 N. FOWLER AVENUE (ANCHOR ADDRESS)
A PORTION OF APN 310-201-03
FRESNO, CALIFORNIA 93727

1.0 EXECUTIVE SUMMARY

Krazan & Associates, Inc. (Krazan) has conducted a Phase I Environmental Site Assessment (ESA) of the Paloutzian Property which is a portion of Fresno County Assessor's Parcel Number (APN) 310-201-03 located at the parcel/anchor address of 3518 N. Fowler Avenue in Fresno, California 93727 (subject site). It is incumbent upon the user to read this Phase I ESA report in its entirety. If not otherwise defined within the text of this report, please refer to the Glossary of Terms Section following the References Section for definitions of terms and acronyms utilized within this Phase I ESA report. Krazan conducted the Phase I ESA of the subject site in conformance with the American Society for Testing and Materials (ASTM) E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This Phase I ESA constitutes all appropriate inquiry (AAI) designed to identify recognized environmental conditions (RECs) in connection with the previous ownership and uses of the subject site as defined by ASTM E 1527-13.

ASTM E 1527-13 Section 1.1.1 *Recognized Environmental Conditions* – In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a parcel of property, the goal of the processes established by this practice is to identify recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

Krazan's findings of this Phase I ESA revealed no or the following evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13. However, the following potential areas of concern (PAOCs) and site development issues were identified in connection with the subject site:

PAOCs

- The potential presence of an unregistered underground storage tank (UST) located on the subject site associated with two structures historically located in the northeastern portion of the subject site from at least 1946 until at least 1962.

Site Development Issues

- The presence of water wells in the northeastern portion of the subject site which should be properly destroyed if not utilized in the planned redevelopment of the subject site.

Please refer to Section 8.0 Conclusions/Opinions for a discussion of the findings included in this summary.

2.0 PURPOSE AND SCOPE OF ASSESSMENT

2.1 Purpose

According to ASTM E 1527-13, the purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment* of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and *petroleum products.* As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner,* or *bona fide prospective purchaser* limitation on CERCLA liability (hereinafter, the *landowner liability protections,* or *LLPs*): that is, the practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B).

2.2 Scope of Work

The Phase I ESA includes the following scope of work: a) a site reconnaissance of existing on-site conditions and observations of adjacent property uses, b) a review of user-provided documents, c) a review of historical aerial photographs, a review of pertinent building permit records, cross-reference directories, historical Sanborn Fire Insurance Maps (SFIMs), and interview(s) with person(s) knowledgeable of the previous and current ownership and uses of the subject site, d) a review of local regulatory agency records, and e) a review of local, state, and federal regulatory agency lists compiled by Environmental Data Resources, Inc. (EDR). The scope of work for this Phase I ESA conforms to ASTM E 1527-13. Krazan was provided written authorization to conduct the Phase I ESA by Mr. Bill Walls with Lennar Homes of

California, Inc. on May 19, 2021 via P.O. 18447 and Krazan's May 11, 2021 Proposal/Cost Estimate No. P21-213.

3.0 SITE DESCRIPTION

The subject site is located north of Dakota Avenue and approximately 650 feet to the east of N. Fowler Avenue within the City of Fresno, Fresno County, California. The subject site consists of one rectangular-shaped parcel measuring approximately 10 acres which is the eastern half of Fresno County Assessor's Parcel Number 310-201-03. The subject site is currently vacant land which is associated with the parcel/anchor address of 3518 N. Fowler Avenue, an address it shares with the western adjoining property. The subject site does not appear to have been developed with any structures since at least 1937 except for two structures present in the northeastern corner of the subject site circa 1946 to 1962.

General property information and property use are summarized in the following Table I. Refer to Figures No. 1 – 3 following the Reference Section.

TABLE I
Subject Site Information Summary

Current Owner:	Lucy & Joyce Paloutzian
Assessor's Parcel Number:	A Portion of APN 310-201-03
Address:	3518 N. Fowler Avenue (Anchor Address) Fresno, California 93727
Historical Address:	None Identified
General Location:	North of Dakota Avenue and approximately 650 feet to the east of N. Fowler Avenue
Acreage:	10 acres (approximately)
Existing Use:	Vacant/Fallow Land
Number of Buildings:	None
Original Construction Date:	N/A
Proposed Use:	Residential
Topographic Map:	U.S. Geological Survey, 7.5-minute Clovis, California topographic quadrangle map, dated 1964, photorevised 1972
Topographic Map Location:	Northwestern quarter of Section 22, Township 13 South, Range 21 East, Mount Diablo Baseline and Meridian
Latitude/Longitude:	36.78762° / –119.67982°
Topography:	Relatively flat, approximately 350 feet above mean sea level
Approximate Depth to Groundwater:	85 feet below ground surface (bgs), State of California Department of Water Resources (DWR), SGMA Portal** (2020 data)
Regional Groundwater Flow Direction:	West-northwest, DWR** (2020 data)

** State of California, Department of Water Resources, Sustainable Groundwater Management Act Portal, 2020 data.

3.1 Geology and Hydrogeology

The subject site is located within the San Joaquin Valley, a broad structural trough bound by the Sierra Nevada and Coast Ranges of California. The San Joaquin Valley, which comprises the southern portion of the Great Valley of California, has been filled with several thousand feet of sedimentary deposits. Sediments in the eastern valley, derived from the erosion of the Sierra Nevada, have been deposited by major to minor west-flowing drainages and their tributaries. Near-surface sediments are dominated by sands and silty sands with lesser silts, minor clays, and gravel. The sedimentary deposits in the region form large coalescing alluvial fans with gentle slopes. Groundwater in the subject site vicinity was reported to be first encountered at a depth of approximately 85 feet bgs in 2020. The groundwater flow direction in the area of the subject site is generally toward the west-northwest.

4.0 SITE RECONNAISSANCE

A site reconnaissance, which included a visual observation of the subject site and surrounding properties, was conducted by Mr. Bill Vick, Krazan's Environmental Professional, on June 9, 2021. Ms. Lucy Paloutzian, one of the owners of the subject site, accompanied Krazan's Environmental Professional during the site reconnaissance. The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions, including hazardous substances and petroleum products, in connection with the property (including soils, surface waters, and groundwater).

4.1 Observations

The following Table II summarizes conditions encountered during our site reconnaissance. A discussion of visual observations is presented in the table below. Refer to the Site Map (Figure No. 2) and color photographs following the text for the locations of items discussed in this section of the report.

TABLE II
Summary of Site Reconnaissance

Feature	Observed	Not Observed
Structures (existing)		X
Evidence of Past Uses (foundations, debris)		X
Hazardous Substances and/or Petroleum Products (including containers)		X
Aboveground Storage Tanks (ASTs)		X
Underground Storage Tanks (USTs) or Evidence of USTs		X
Evidence of Underground Pipelines		X
Strong, Pungent, or Noxious Odors		X
Pools of Liquid Likely to be Hazardous Materials or Petroleum Products		X
Drums	X	
Unidentified Substance Containers		X

TABLE II (continued)
Summary of Site Reconnaissance

Feature	Observed	Not Observed
Potential Polychlorinated Biphenyl (PCB)-Containing Equipment		X
Subsurface Hydraulic Equipment		X
Heating/Ventilation/Air conditioning (HVAC)		X
Stains or Corrosion on Floors, Walls, or Ceilings		X
Floor Drains, Sumps, or Oil/Water Clarifiers		X
Storm Drains		X
Pits, Ponds, or Lagoons		X
Stained Soil and/or Pavement		X
Soil Piles/Mounds	X	
Mounded Material (Unknown Composition)	X	
Stressed Vegetation		X
Waste or Wastewater (including stormwater) Discharges to Surface/ Surface Waters		X
Wells (irrigation, domestic, dry, injection, abandoned, monitoring wells)	X	
Septic Systems		X

The subject site comprises approximately 10 acres (gross) of vacant/fallow land which is a portion of Fresno County APN 310-201-03. Refer to Figure No. 2, Site Map, for locations of the following referenced on-site features:

- The subject site was observed to be relatively flat, vacant land populated by native vegetation (See Photographs No. 1 - No. 8). No structures were observed on the subject site.

- Housekeeping conditions were observed to be good throughout the subject site. No obvious evidence of illegal dumping or surface waste disposal was observed on the subject site.

- A small tractor, a small trailer, a limited amount of farm equipment/materials, two empty drums, and a drum containing a small amount of trash were observed in the southwestern portion of the subject site (See Photographs No. 9 and No. 10). No hazardous materials or obvious evidence of an unauthorized release of hazardous materials were noted in association with the equipment and materials located in the southwestern portion of the subject site. Ms. Paloutzian, one of the owners of the subject site, stated that she intends to have the equipment and materials removed from this portion of the subject site prior to completion of the proposed property transaction.

- Mounded materials were observed in the southwestern portion of the subject site, including an elongated apparent soil mound located on/near the property boundary (See Photograph No. 11), and three smaller mounds of unknown composition located within the southwestern portion of the subject site (See Photograph No. 12). No odors, surface staining, stressed vegetation, or other obvious evidence of the presence of hazardous materials or hazardous waste was noted in association with the mounded materials. Ms. Paloutzian stated that she did not know definitively the composition of the mounded materials located in the southwestern portion of the subject site; however, she indicated that her father may have brought soil onto the property from other locations and he brought sand and manure onto the property historically. Ms. Paloutzian stated that she would have to consider the existing on-site mounds to be of unknown composition.

- Several agricultural water wells and/or irrigation system features were observed in the northeastern portion of the subject site, including: 1) a non-operational apparent former agricultural water well (See Photograph No. 13), 2) an apparent agricultural water well equipped with a submersible pump (See Photograph No. 14), and 3) an apparent subsurface irrigation water conveyance feature which Ms. Paloutzian stated she believed to be an agricultural water well (See Photograph No. 15). Krazan's review of historical aerial photographs of the subject site indicates that two small structures were present in this portion of the subject site circa 1940s to 1960s which may have been associated with these water wells/irrigation features. Ms. Paloutzian, familiar with the subject site since the early-1960s, stated that she recalled a well house in this portion of the subject site but did not recall the presence of a second structure.

- During the visual observations of the subject site, no hazardous materials or hazardous waste were observed. Exposed surface soils did not exhibit obvious signs of discoloration. No obvious evidence (vent pipes, fill pipes, dispensers, etc.) of USTs was noted within the areas observed. No standing water or major depressions were observed on the subject site. No indications of former structures, such as foundations, were observed on the subject site.

- No pole- or pad-mounted electrical transformers were observed on the subject site.

- No high-voltage, tower-mounted electrical transmission lines were observed on or within 100 feet of the subject site.

4.2 Utilities

Based on Krazan's research, the following Table III summarizes companies/municipalities that currently provide utility services to the subject site:

TABLE III
Municipal Service / Utility Providers

Service / Utility	Provider
Electricity	Pacific Gas & Electric (PG&E)
Natural Gas	PG&E
Potable Water	City of Fresno
Sanitary Sewer	City of Fresno

Water / Wells

Krazan's research indicates that no potable water has been historically supplied to the subject site. However, the water purveyor for the subject site vicinity is the City of Fresno. The City of Fresno's water quality monitoring is an on-going program with water samples obtained on a regular basis. It is the responsibility of the City of Fresno to provide customers with potable water in compliance with the California State Maximum Contaminant Levels (MCLs) for primary drinking water constituents in water supplied to the public.

During Krazan's June 9, 2021 site reconnaissance, a non-operational apparent former agricultural water well, an apparent agricultural water well equipped with a submersible pump, and an apparent subsurface irrigation water conveyance feature which Ms. Paloutzian, one of the owners of the subject site, stated she

believed to be an agricultural water well were observed in the northeastern portion of the subject site. If the on-site water wells are not to be used in the planned redevelopment of the subject site, they should be properly destroyed in accordance with State and local guidelines.

Sewer / Septic Systems

Krazan's research indicates that no sewage disposal systems have historically serviced the subject site.

4.3 Adjacent Streets and Property Usage

The following Table IV summarizes the current adjacent roads and adjacent property uses observed during the site reconnaissance:

TABLE IV
Adjacent Streets and Property Use

Direction	Adjacent Street	Adjacent Property Use
North	None	Church Facility (building and parking areas)
South	E. Dakota Avenue	Vacant Land
East	None	Rural Residence and Pasture
West	None	Greenhouses/Agricultural Land/Rural Residence

Based on the observed uses of the properties located immediately adjacent to the subject site, it is unlikely that significant quantities of hazardous materials are stored at the adjacent properties.

4.4 ASTM Non-Scope Considerations

According to ASTM E 1527-13, there may be environmental issues or conditions at the subject site that are outside the scope of the Phase I ESA practice (non-scope considerations). Some substances may be present at the subject site in quantities and under conditions that may lead to contamination of the subject site or of nearby properties but are not included in CERCLA's definition of hazardous substances (42 U.S.C. §9601[14]). ASTM non-scope considerations are discussed below.

Asbestos-Containing Materials

Asbestos is a group of naturally occurring mineral fibers that have been used commonly in a variety of building construction materials for insulation and as a fire-retardant. Because of its fiber strength and heat resistant properties, asbestos has been used for a wide range of manufactured goods, mostly in building materials, vehicle brakes, and heat-resistant fabrics, packaging, gaskets, and coatings. When asbestos-containing materials (ACMs) are damaged or disturbed by repair, remodeling, or demolition activities, microscopic asbestos fibers may become airborne and can be inhaled into the lungs, where they can cause significant health problems.

No structures are located on the subject site. Therefore, ACMs are not considered an on-site environmental concern at this time.

Lead-Based Paint

Although lead-based paint (LBP) was banned in 1978, many buildings constructed prior to 1978 have paint that contains lead. Lead from paint, chips, and dust can pose serious health hazards if not addressed properly.

No structures are located on the subject site. Therefore, lead-based paint is not considered an on-site environmental concern at this time.

Mold and Moisture Intrusion

A class of fungi, molds have been found to cause a variety of health problems in humans, including allergic, toxicological, and infectious responses. Molds are decomposers of organic materials, and thrive in humid environments, and produce spores to reproduce, just as plants produce seeds. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation and carpeting often play host to such growth. Moisture control is the key to mold control. Molds need both food and water to survive; since molds can digest most things, water is the factor that limits mold growth. The EPA recommends the following action to prevent the amplification of mold growth in buildings:

- Fix leaky plumbing and leaks in the building envelope as soon as possible.
- Watch for condensation and wet spots. Fix source(s) of moisture problem(s) as soon as possible.
- Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid).
- Keep heating, ventilation, and air conditioning (HVAC) drip pans clean, flowing properly, and unobstructed.
- Vent moisture-generating appliances, such as dryers, to the outside where possible.
- Maintain low indoor humidity, below 60% relative humidity (RH), ideally 30-50%, if possible.

- Perform regular building/HVAC inspections and maintenance as scheduled.
- Clean and dry wet or damp spots within 48 hours.
- Do not let foundations stay wet. Provide drainage and slope the ground away from the foundation.

No structures are currently located on the subject site. Therefore, microbial growth and moisture intrusion are not considered an on-site environmental concern at this time.

Radon

Radon is a radioactive gas that is found in certain geologic environments and is formed by the natural breakdown of radium, which is found in the earth's crust. A radon survey was not included within the scope of this investigation; however, the State of California Department of Public Health (CDPH) maintains a statewide database of radon results in designated geographic areas. Radon detection devices are placed in homes throughout the study region to determine geographic regions with elevated radon concentrations. The U.S. EPA has set the safety standard for radon gas in homes to be 4.0 pico Curies per liter (pCi/L).

The US EPA has prepared a map to assist National, State and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action Limit of 4.0 pCi/L. It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures. Review of the EPA Map of Radon Zones places the Property in Zone 2, where average predicted radon levels are between 2.0 and 4.0 pCi/L. Therefore, the available data suggests that the potential for radon to adversely impact the subject site appears to be low.

Environmental Non-Compliance Issues

No obvious material environmental non-compliance issues were identified in connection with the subject site in the process of preparing this report.

Activity and Use Limitations

No environmental activity and use limitations were identified in connection with the subject site in the process of preparing this report.

Wetlands

As defined by the U.S. EPA and the Department of Army, Corps of Engineers, wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Jurisdictional wetlands are regulated under Section 404 of the Clean Water Act (1972, 1977, and 1987, and also the 1985 and 1990 Farm Bills), and are important for protection of aquatic waterfowl and species, water purification, and flood control. According to current Corps of Engineers information, three basic criteria are currently used to define wetlands:

- Wetland hydrology - areas exhibiting surface or near-surface saturation or inundation at some point in time (greater than 12.5 percent of growing season defined on basis of frost-free days) during an average rainfall year.

- Hydrophilic vegetation - frequency of occurrence of wetland indicator plants (plant life growing in water, soil, or substrate that is periodically deficient in oxygen as a result of excessive water content).

- Hydric soil - landscape patterns identified by saturation, flooding, or ponding long enough during the growing season (generally seven days) which develop characteristic color changes in the upper part of the soil as a result of anaerobic conditions.

Based on Krazan's reconnaissance of the subject site, evidence was not apparent to suggest that the site contained a wetland. Furthermore, according to the U. S. Fish & Wildlife Service (USFWS) National Wetlands Inventory available via the USFWS Internet website, the subject site does not contain a designated wetland. Therefore, at this time, regulations pertaining to wetlands do not appear to impact the subject site.

5.0 USER-PROVIDED INFORMATION

A review of user-provided information was conducted in order to help identify pertinent information regarding potential environmental impacts associated with the subject site. A Final Title Report or Environmental Lien Search were not provided to or prepared by Krazan in conjunction with this assessment.

5.1 Title Report

A Preliminary Title Report (PTR) dated April 23, 2021, prepared for the subject site by Lennar Title, was provided to Krazan by Lennar Homes of California, Inc., Krazan's client and the Phase I ESA User. The subject site PTR was reviewed to identify potential environmental deed restrictions, environmental liens, or environmental activity and use limitations (AULs) which may have occurred on or exist in connection with the subject site. Krazan's review of the PTR indicated no environmental deed restrictions,

environmental liens or environmental AULs for the subject site. However, as quoted from the subject site PTR, "It is important to note that this Preliminary Title Report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land." The absence of a Final Title Report or Environmental Lien Search represents a data gap. Please refer to Appendix A for a copy of the PTR.

5.2 Phase I Environmental Site Assessment User Questionnaire

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiry* is not complete. The user is asked to provide information or knowledge of the following:

1. Environmental cleanup liens that are filed or recorded against the site.
2. Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.
3. Specialized knowledge or experience of the person seeking to qualify for the LLPs.
4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
5. Commonly known or *reasonably ascertainable* information about the *property*.
6. The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation.
7. The reason for preparation of this Phase I ESA.

On June 1, 2021, a completed Phase I ESA user questionnaire was received from Mr. Bill Walls with Lennar Homes of California, Inc., the Phase I ESA User. Please refer to Appendix B for a copy of the completed Phase I ESA user questionnaire.

According to the questionnaire responses, Mr. Walls, to the best of his knowledge as the user of this Phase I ESA, was not aware of any environmental cleanup liens and activity or land use limitations which have been filed or recorded against the subject site; and Mr. Walls has no specialized knowledge or experience of the prior nature of the business or chemical utilization on the subject site. Mr. Walls indicated that the subject site was historically utilized for residential and agricultural purposes. Mr. Walls indicated that he did not have knowledge of the past or current presence of specific chemicals or hazardous materials, unauthorized spills or chemical releases or of any environmental cleanups in connection with the subject

site. Mr. Walls indicated that he is not aware of any obvious indications pointing to the presence or likely presence of contamination of the subject property. Mr. Walls stated that the purchase price of the subject site reasonably reflects fair market value. Additionally, Mr. Walls indicated that the reason for preparation of this Phase I ESA is related to a proposed property purchase.

6.0 SITE USAGE SURVEY

The property usage survey included assessing property history, and reviewing local, state, and federal regulatory agency records.

6.1 Site History

A review of historical aerial photographs, a USGS topographic quadrangle map, City of Fresno Planning and Development Department records, and reasonably ascertainable cross-reference directories, a search for Sanborn Fire Insurance Maps (SFIMs), and a Phase I ESA interview were utilized to assess the history of the subject site.

Previous Environmental Assessment

No previous environmental assessments of the subject site were provided to Krazan for review during the course of this assessment.

Aerial Photograph Interpretation

Historical aerial photographs dated 1937, 1946, 1950, 1957, 1962, 1967, 1973, 1979, 1984, 1987, 1998, 2005, 2012, and 2019 were reviewed to assess the history of the subject site. These photographs were obtained from Environmental Data Resources, Inc. (EDR) and via the internet at Google Earth™. The aerial photograph summary is provided in the following Table V. Please refer to Appendix C for a copy of the Historical Aerial Photographs.

TABLE V
Summary of Aerial Photograph Review

Year/Scale	Site Use	Site and Adjacent Property Observation
1937 1" = 500'	Agricultural	The subject site appears to be utilized for agricultural purposes (grape vines) with no visible on-site structures. An open area visible in the northeastern corner of the subject site appears to be the location of an agricultural water well. The northern and western adjacent properties appear to be occupied by vineyards. The southern and eastern adjacent properties appear to be occupied by rural residences and utilized for agricultural purposes.

TABLE V (continued)
Summary of Aerial Photograph Review

Year/Scale	Site Use	Site and Adjacent Property Observation
1946 1" = 500'	Agricultural/ Small Structures (2)	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1937 aerial photograph except two small structures are visible in the northeastern corner of the subject site, and a similar structure is visible adjacent to the northwest of the subject site. Two water wells were observed in the northeastern corner of the subject site during Krazan's June 9, 2021 site reconnaissance.
1950 1" = 500'	Agricultural/ Small Structures (2)	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1946 aerial photograph except for the development of a rural residence on the western adjacent property.
1957 1" = 500'	Agricultural/ Small Structures (2)	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1950 aerial photograph.
1962 1" = 500'	Agricultural/ Small Structures (2)	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1957 aerial photograph except: 1) the agricultural use of the subject site appears to be non-vineyard row crops, 2) a residence has been developed on the eastern adjacent property, and 3) two greenhouses have been developed on the western adjacent property.
1967 1" = 500'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1962 aerial photograph except the small structures previously noted in the northeastern corner of the subject site and adjacent to the northwest of the subject site are no longer visible.
1973 1" = 500'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1967 aerial photograph except a residential subdivision has been developed to the west and southwest of the subject site.
1979 1" = 500'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1973 aerial photograph except the residential subdivision has been expanded to the west of the subject site.
1984 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1979 aerial photograph except: 1) the subject site appears to be vacant/fallow land, and 2) the existing church located adjacent to the north of the subject site appears to be under construction.
1987 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1984 aerial photograph except the construction of the existing church located on adjacent to the north of the subject site appears to been completed.
1998 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1987 aerial photograph.

TABLE V (continued)
Summary of Aerial Photograph Review

Year/Scale	Site Use	Site and Adjacent Property Observation
2005 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1998 aerial photograph except for the development of a residential subdivision to the north of the subject site.
2012 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 2005 aerial photograph.
2019 1" = 500'	Vacant/ Fallow Land	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 2012 aerial photograph except for the development of a residential subdivision to the northeast of the subject site.

USGS Topographic Quadrangle Map

Krazan's review of the USGS, 7.5-minute, Clovis, California topographic quadrangle map dated 1964, photorevised 1972, indicates that the subject site is depicted as vacant land in 1964 and in 1972. No structures are depicted on the subject site; however, a water well is depicted in the northeastern corner of the subject site. Refer to Figure No. 3, Topographic Map, for reference.

City of Fresno Planning and Development Department Records

On May 27, 2021, a building permit records request was submitted to the City of Fresno Planning and Development Department (CFPDD) for the subject site anchor address of 3518 N. Fowler Avenue and for APN 310-201-03 of which the subject site is a portion. According to a representative of City of Fresno, building permit records are on file with the CFPDD for the subject site anchor address of 3518 N. Fowler Avenue. However, Krazan's review of building permit records provided by the CFPDD revealed that the permit records are associated with the western adjacent property which shares the subject site parcel address of 3518 N. Fowler Avenue. Therefore, no permits for items such as underground storage tanks, septic systems, building demolition, or previous structures/features are on file with the City of Fresno Planning and Development Department for the subject site.

City Directories

Krazan contracted with EDR to provide a review of available cross-reference directories dated 1975 through 2017 for the subject site parcel/anchor address of 3518 N. Fowler Avenue which is shared with the western adjoining property. A summary of cross-reference directory information for the subject site anchor address of 3518 N. Fowler Avenue is presented in the following Table VI. Please refer to Appendix D for a copy of the EDR, City Directory Report.

TABLE VI
Haines Criss-Cross and/or Polk Guide Directory Summary

Address	Owner/Occupant	Years
Subject Site – Anchor Address		
	Harold Paloutzian (Residential Listing)	1975 to 1999
	Ana & James Paloutzian (Residential Listing)	2002
	Occupant Unknown	2004
	Harold Paloutzian (Residential Listing)	2009
	Joyce Paloutzian (Residential Listing)	2014
	Lucy Paloutzian (Residential Listing)	2017

Krazan's review of cross-reference directories indicates that the subject site anchor address of 3518 N. Fowler Avenue was associated with residential uses from at least 1975 until at least 2017. Information obtained from review of cross-reference directories is consistent with that obtained from other sources during the course of this assessment.

Sanborn Fire Insurance Maps

Krazan reviews Sanborn Fire Insurance Maps (SFIMs) to evaluate prior land use of the subject site and the adjacent properties. SFIMs typically exist for cities with populations of 2,000 or more, the coverage dependent on the location of the subject site within the city limits. Krazan contracted with EDR to provide copies of available SFIMs for the subject site and the adjacent properties as far back as 1867. EDR's search of SFIMs revealed no coverage for the subject site and the adjacent properties. Please refer to Appendix E for a copy of the EDR, SFIM *No Maps Available* Report.

6.2 Interviews

Krazan conducts interviews with the owner of the subject site, a key site manager, subject site occupants, and/or the previous owners/occupants of the subject site. The interviews are designed to provide pertinent information regarding potential environmental impacts associated with the subject site.

Subject Site Owner – An interview was conducted with Ms. Lucy Paloutzian, one of the owners of the subject site, via her completion of an environmental questionnaire. According to questionnaire responses, Ms. Paloutzian indicated that she has been familiar with the subject site for the past 66 years (Ms. Paloutzian indicated that she is 66 years old and lived on the western adjoining property all of her life). Ms. Paloutzian indicated that the subject site is barren land and she is not aware of any structures previously located on site. Ms. Paloutzian indicated that she does not have knowledge of the historical uses of the subject site prior to approximately 60 years ago. Ms. Paloutzian indicated that one dry well is located on the subject

site which, upon further questioning, was revealed to mean a non-operational agricultural well which no longer produces water.

According to Ms. Paloutzian, to the best of her knowledge, no use, storage, or disposal of hazardous materials; no existing or former ASTs or USTs; no hazardous materials spills, no environmental cleanups, no on-site treatment and/or discharge of waste; no environmental liens, AULs, engineering or institutional controls, no on-site leach fields, sumps, or disposal ponds; no buried materials; no monitoring wells; or any items of environmental concern are associated with the subject site. Ms. Paloutzian indicated that she is not aware of any obvious indications pointing to the presence or likely presence of contamination of the subject property. Ms. Paloutzian indicated that the reason for preparation of this Phase I ESA is related to a proposed development. Please refer to Appendix F for a copy of the environmental questionnaire completed by Mr. Paloutzian and to Section 4.1 of this report for responses to questions posed during the site reconnaissance.

Previous Subject Site Owners/Occupants – An interview with a previous owner/occupant of the subject site was not reasonably ascertainable. Consequently, information regarding the history and historical uses of the subject site obtained from an interview of a previous owner and/or occupant constitutes a data gap.

6.3 Agricultural Chemicals

Review of historical aerial photographs indicates that the subject site was utilized for agricultural purposes from at least 1937 until at least 1979. Although the potential exists that environmentally persistent pesticides/herbicides were historically applied to crops grown on the subject site circa 1940s to 1960s; 1) no material evidence of the use of environmentally persistent pesticides/herbicides was obtained during the course of this assessment, and 2) it is anticipated that any environmentally persistent pesticides/herbicides potentially located on site will be dislocated and diluted as a result of the grading and trenching operations which will be conducted in conjunction with the redevelopment of the property. Consequently, given the above-referenced factors and Krazan's experience in the subject site vicinity which generally indicates that the potential is low for elevated concentrations of environmentally persistent pesticides/herbicides related to crop cultivation to exist in the near-surface soils of common agricultural ground at concentrations which would require regulatory action, despite the absence of specific data, the potential for elevated concentrations of environmentally persistent pesticides or herbicides to currently exist in the near-surface soils of the subject site at concentrations which would require regulatory action appears to be low.

6.4 Regulatory Agency Interface

A review of regulatory agency records was conducted to help determine if hazardous materials have been handled, stored, or generated on the subject site and/or the adjacent properties and businesses.

Regulatory records are reviewed based on the following criteria: 1) properties with known soils and/or groundwater releases considered to represent the potential for impact to the subject site that are located within 1,760 feet of the subject site for constituents of concern impacts or 528 feet of the subject site for petroleum hydrocarbon impacts; 2) properties that are adjacent or in proximity to the subject site included within the EDR regulatory database report or noted during the site reconnaissance to possibly handle, store, or generate hazardous materials.

Fresno County Department of Public Health – Environmental Health Division

The Fresno County Department of Public Health, Environmental Health Division (FCEHD) is the lead regulatory agency or Certified Unified Program Agency (CUPA) for hazardous materials handling facilities in Fresno County. Krazan's review of the FCEHD CUPA and Solid Waste Programs Resource List (CUPA List) dated April 9, 2021 and May 27, 2021 review of the FCEHD on-line Environmental Health Document Portal indicated that no hazardous materials storage, hazardous waste generator, AST, UST, leaking UST (LUST), environmental cleanup site/site mitigation, and/or hazardous materials release incident records are on file with the FCEHD for the subject site. Additionally, according to the California Environmental Reporting System (CERS) database available via the CalEPA Regulated Site Portal at the CalEPA website, no HMBP chemical inventory records and no CUPA compliance evaluation inspection records are included in the database for the adjacent properties suggesting that hazardous materials are not stored in reportable quantity and that hazardous waste is not generated in reportable quantity at the adjacent properties.

State of California Regional Water Quality Control Board - Geotracker

Krazan's May 247, 2021 review of the State of California Regional Water Quality Control Board (RWQCB) Geotracker database available via the RWQCB Internet Website indicated that no cleanup sites including LUST sites, cleanup program sites, land disposal sites, or military sites are listed for the subject site, the adjacent properties, or properties located within the subject site vicinity. Additionally, no permitted UST sites were determined to be located on or adjacent to the subject site.

State of California Environmental Protection Agency

Krazan's May 27, 2021 review of the State of California Environmental Protection Agency (CalEPA) – Department of Toxic Substances Control (DTSC) Envirostor database available via the DTSC's Internet Website indicated that no records of cleanup sites including State response sites, voluntary cleanup sites,

school cleanup sites, or military or school evaluation sites are listed for the subject site, the adjacent properties, or properties located within 500 feet of the subject site. Additionally, no Federal Superfund – National Priorities List (NPL) sites were determined to be located within a one-mile radius of the subject site.

City of Fresno Fire Department

The City of Fresno Fire Department (CFFD) has jurisdiction for fire protection for the subject site and the immediate vicinity. On May 27, 2021, the City of Fresno Fire Department was contacted regarding potential records of hazardous materials storage in aboveground storage tanks and/or hazardous materials spill/release incidents for the subject site. According to a representative of the City of Fresno Fire Department, no records related to the storage of hazardous materials in aboveground tanks or hazardous materials spill incidents are on file with the CFFD for the subject site anchor address of 3518 N. Fowler Avenue.

California Department of Conservation, California Geologic Energy Management Division

Krazan's June 8, 2021 review of the State of California Department of Conservation, California Geologic Energy Management Division (CalGEM) Online Mapping System indicated that no plugged and abandoned or producing oil wells are located on or adjacent to the subject site.

Local Area Tribal Records

No Indian reservations, USTs on Indian land, or LUSTs on Indian land were reported on the subject site, adjacent properties, or vicinity properties in the EDR-provided government database report.

6.5 Regulatory Agency Lists Review

Several agencies have published documents that list businesses or properties which have handled hazardous materials or waste or may have experienced site contamination. The lists consulted in the course of our assessment were compiled by EDR and Krazan and represent reasonably ascertainable current listings. Krazan did not verify the locations and distances of every property listed by EDR. Krazan verified the location and distances of the properties Krazan deemed as having the potential to adversely impact the subject site. The actual location of the listed properties may differ from the EDR listing. Refer to the following Table VII for a summary of the listed properties considered to have the potential to impact the subject site located within the specified ASTM Search Radii. The actual distances of the listed properties (which are summarized below) are based on observations during Krazan's site reconnaissance. No EDR-listed unmapped (non-geocoded) sites were determined to be located on or adjacent to the subject site. Please refer to the Appendix G for a copy of the EDR, Radius Map report.

TABLE VII
Listed Properties

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	0	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

TABLE VII (continued)
Listed Properties

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

TABLE VII (continued)
Listed Properties

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	4	NR	NR	NR	6
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

TABLE VII (continued)
Listed Properties

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	2	6	0	2	0	10

TABLE VII (continued)
Listed Properties

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:
TP = Target Property
NR = Not Requested at this Search Distance
Sites may be listed in more than one database

The subject site anchor address/location were not listed in the EDR regulatory database report.

Hazardous Materials Migration in Soils and/or Groundwater

No sites with reported releases of hazardous materials to the subsurface were reported within a 4,000-foot radius of the subject site. In general, potentially hazardous materials or petroleum products released from facilities located approximately hydraulically upgradient within the subject site vicinity, or in a hydraulically cross-gradient direction in proximity to the site, may have a reasonable potential of migrating to the subject site via groundwater flow. This opinion is based on the assumption that non-vaporous hazardous materials generally do not migrate large distances laterally within the soil, but rather tend to migrate with groundwater in the general direction of groundwater flow. However, the potential for migration of volatile hazardous materials may include movement within soils, groundwater flow or potentially omni-directionally if present in a vaporous state.

Hazardous Materials Migration in Vapor

Hazardous materials or petroleum product vapors which may have the potential to migrate into the subsurface of the subject site may be caused by the release of vapors from contaminated soil or groundwater either on or in the vicinity of the subject site from current or historical uses of the subject site and/or adjacent or vicinity properties. Current or past land uses such as gasoline stations (using petroleum hydrocarbons), dry cleaning establishments (using chlorinated volatile organic compounds), former manufactured gas plant sites (using volatile and semi-volatile organic compounds), and former industrial sites such as those that had vapor degreasing or other parts-cleaning operations (using chlorinated volatile organic compounds) are of particular concern. Constituent of concern vapors are capable of migrating great distances omni-

directionally along subsurface conduits such as pipelines, utility lines, sewer and stormwater lines, and building foundations.

Based on Krazan's observations and review of State and local regulatory agency records and the EDR regulatory database report, no listings of concern related to potential vapor migration were determined to be associated with the subject site, adjacent properties, or properties located within the subject site vicinity. Review of vicinity properties listed by EDR as release sites within the applicable search radii suggests that these properties do not represent a significant potential for vapor migration in conjunction with the subject site. The rationale supporting this opinion includes the following:

- None of the reported sites were in close proximity to the subject site.
- Relevant sites had undergone investigation and remediation sufficient to receive regulatory agency closure.
- Sites with reported releases of minor quantities of COCs or COCs of limited volatility impacting soil only were considered of minimal concern.
- The lateral migration of the COCs in groundwater is reported to be limited and COCs were not detected in groundwater samples collected downgradient of the release and several hundred feet upgradient of the subject site.
- Sites with reported releases of COCs including volatile organic compounds (VOCs) were either of sufficient distance or hydraulically down- or cross-gradient from the subject site such that they do not appear to represent a significant potential for vapor migration on the subject site.

No engineering control sites, sites with institutional controls, or sites with deed restrictions were listed for the subject site, adjacent sites or vicinity properties in the EDR Report.

7.0 DISCUSSION OF FINDINGS

TABLE VIII
Summary of Conclusions

Apparent Evidence of RECs or PAOCs From	Not Noted	Noted
Historical Uses		X
Current Uses	X	
Adjacent or Vicinity Property Uses	X	

Historical Uses

Based on Krazan's review of historical aerial photographs, a site reconnaissance, contacts with the local regulatory agencies, and an interview with the owner of the subject site, there is no evidence that recognized environmental conditions exist in connection with the historical uses of the subject site. However, potential areas of concern (PAOCs) were identified in connection with the historical uses of the subject site which are discussed in the Conclusions/Opinions section of this report.

Current Use

Based on Krazan's site reconnaissance, contacts with local regulatory agencies, and an interview with the owner of the subject site, there is no evidence that recognized environmental conditions exist in connection with the current uses of the subject site. However, site development issues were identified in connection with the subject site which are discussed in the Conclusions/Opinions section of this report.

Adjacent or Vicinity Property Uses

Based on Krazan's field observations, review of the EDR government database report, and consultation with local regulatory agencies, there is no evidence that recognized environmental conditions exist in connection with the subject site from adjacent property uses.

7.1 Evaluation of Data Gaps/Data Failure

In accordance with ASTM E 1527-13 guidance, data gaps represent a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice. Data failure represents the failure to achieve the historical research objectives of this practice even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.

The following is a summary of data gaps encountered in the process of preparing this report including an observation as to the presumed significance of that data gap to the conclusions of this assessment:

- <u>Absence of Final Title Report or Environmental Lien Search (Section 5.1)</u>

  A Final Title Report or Environmental Lien Search were not provided by the Phase I ESA user; therefore, a preliminary title report with attendant limitations was utilized in preparation of this report. Taken in consideration with the available information obtained in the course of preparing this report in conjunction with professional experience, there is no evidence to suggest that this data

gap might alter the conclusions of this assessment. However, the contents of a Final Title Report or Environmental Lien Search are unknown.

- Absence of Interview with Previous Property Owner/Occupant (Section 6.1)

  A Phase I ESA interview with the previous owner/occupant of the subject site was not reasonably ascertainable. Consequently, information regarding the history and historical uses of the subject site obtained from an interview of a previous owner and/or occupant constitutes a data gap. Taken in consideration with the available information obtained in the course of preparing this report in conjunction with professional experience, there is no evidence to suggest that this data gap might alter the conclusions of this assessment. However, the contents of an interview with a previous property owner/occupant are unknown.

8.0 CONCLUSIONS/OPINIONS

We have conducted a Phase I ESA of the subject site in conformance with the scope and limitations of the ASTM E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* guidance documents. Any deviations from this practice were previously described in this report. During the course of this assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13. However, the following potential areas of concern (PAOCs) and site development issues were identified in connection with the subject site:

PAOCs

- Krazan's review of historical aerial photographs indicates that two structures, the southernmost of which appears to be relatively small, were located in the northeastern corner of the subject site from at least 1946 until at least 1962. Additionally, historical aerial photographs of the subject site vicinity indicate that part/all of the subject site and the surrounding properties were utilized for agricultural purposes during this time interval. Ms. Lucy Paloutzian, one of the owners of the subject site familiar with the subject site since the early-1960s, stated that a well house was located in the northeastern portion of the subject site historically, and this portion of the subject site is currently occupied by agricultural water wells and irrigation water conveyance features. The southernmost structure noted in the referenced historical aerial photographs is of a size consistent with a well house and its location is consistent with an existing former agricultural water well observed during Krazan's site reconnaissance. Ms. Paloutzian stated that she did not recall the presence of a second structure and thus has no knowledge of the use/purpose of the larger second structure.

Ms. Paloutzian indicated that she is not aware of underground storage tanks (USTs) being located at the subject site, and no records of USTs for the subject site are on file with the local regulatory agencies. However, USTs on rural or agricultural properties historically have been exempt from requirements for registration with regulatory agencies. Krazan's experience with such properties has shown that it is not uncommon for property owners/operators to install USTs for their convenience, especially in the vicinity of structures, which are undocumented and whose presence would remain unknown in spite of the standard data research conducted in the course of this Phase I ESA. It is therefore possible that subsurface features such as unregistered USTs may exist in the vicinity of the former on-site structures which remain unknown based upon the absence of any regulatory, municipality, interview data, or other evidence indicating their presence or location. Consequently, despite an absence of data suggesting their presence, the presence or absence of USTs associated with the subject site prior to the current owner's knowledge of the subject site is unknown.

Site Development Issues

- During Krazan's June 9, 2021 site reconnaissance, a non-operational apparent former agricultural water well, an apparent agricultural water well equipped with a submersible pump, and an apparent subsurface irrigation water conveyance feature which Ms. Paloutzian stated she believed to be an agricultural water well were observed in the northeastern portion of the subject site. If the on-site water wells are not to be used in the planned redevelopment of the subject site, they should be properly destroyed in accordance with State and local guidelines.

9.0 RELIANCE

This report was prepared solely for use by Client and should not be provided to any other person or entity without Krazan & Associates' prior written consent. No party other than Client may rely on this report without Krazan & Associates' express prior written consent. Reliance rights for third parties will only be in effect once requested by Client and authorized by Krazan & Associates with authorization granted by way of a Reliance Letter. The Reliance Letter will require that the relying party(ies) agree to be bound to the terms and conditions of the agreement between Client and Krazan & Associates as if originally issued to the relying party(ies), or as so stipulated in the Reliance Letter.

10.0 LIMITATIONS

The site reconnaissance and research of the subject site has been limited in scope. This type of assessment is undertaken with the calculated risk that the presence, full nature, and extent of contamination would not be revealed by visual observation alone. Although a thorough site reconnaissance was conducted in accordance with ASTM Guidelines and employing a professional standard of care, no warranty is given,

either expressed or implied, that hazardous material contamination or buried structures, which would not have been disclosed through this investigation, do not exist at the subject site. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

The findings presented in this report were based upon field observations during a single property visit, review of available data, and discussions with local regulatory and advisory agencies. Observations describe only the conditions present at the time of this investigation. The data reviewed and observations made are limited to accessible areas and currently available records searched. Krazan cannot guarantee the completeness or accuracy of the regulatory agency records reviewed. Additionally, in evaluating the property, Krazan has relied in good faith upon representations and information provided by individuals noted in the report with respect to present operations and existing property conditions, and the historical uses of the property. It must also be understood that changing circumstances in the property usage, proposed property usage, subject site zoning, and changes in the environmental status of the other nearby properties can alter the validity of conclusions and information contained in this report. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

This report is provided for the exclusive use of the client noted on the cover page and shall be subject to the terms and conditions in the applicable contract between the client and Krazan. Any third party use of this report, including use by Client's lender, shall also be subject to the terms and conditions governing the work in the contract between the client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report without the express written consent of Krazan is strictly prohibited and will be without risk or liability to Krazan.

Conclusions and recommendations contained in this report are based on the evaluation of information made available during the course of this assessment. It is not warranted that such data cannot be superseded by future environmental, legal, geotechnical or technical developments. Consequently, given the possibility for unanticipated hazardous conditions to exist on a subject site which may not have been discovered, this Phase I ESA is not intended as the basis for a buyer or developer of real property to waive their rights of recovery based upon environmental unknowns. Parties that choose to waive rights of recovery prior to site development do so at their own risk.

Parties who seek to rely upon Phase I Environmental Site Assessment reports dated more than 180 days prior to the date of reliance do so at their own risk. This limitation in reliance is based on the potential for physical changes at the site, changes in circumstances, technological and professional advances, and guidance related to the continued viability of Environmental Site Assessment reports, User's

responsibilities, and requirements for updating of components of the inquiry as stated in the ASTM Standard E 1527-13.

11.0 QUALIFICATIONS

This Phase I ESA was conducted under the supervision or responsible charge of Krazan's undersigned environmental assessor with oversight from the undersigned environmental professional. The work was conducted in accordance with ASTM E 1527-13 guidance, generally accepted industry standards for environmental due diligence in place at the time of the preparation of this report, and Krazan's quality-control policies.

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

William Vick, PhD
Environmental Professional

Arthur C. Farkas
Environmental Professional

WHV/ACF/mlt

REFERENCES

Aerial photographs obtained from Environmental Data Resources, Inc. (EDR), Microsoft® Research Maps, and Google Earth™.

American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment (ESA) Process*, ASTM Designation: E 1527-13.

ASTM, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, ASTM Designation E 2600-10.

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City of Fresno Planning and Development Department

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State of California Department of Toxic Substances Control, Envirostor Website: http://www.envirostor.dtsc.ca.gov/public

State of California Environmental Protection Agency (CalEPA), California Environmental Reporting System (CERS) Database, CalEPA Regulated Site Portal.

State of California Office of Emergency Services (Cal OES), Spill Reports Database, Cal OES website.

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State of California, Department of Water Resources, *Lines of Equal Elevation of Water in Wells Unconfined Aquifer, San Joaquin Valley, Spring 2010.*

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REFERENCES (continued)

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U.S. Environmental Protection Agency (EPA) *Map of Radon Zones*.

U.S. Fish & Wildlife Service National Wetland Inventory *Wetlands Mapper:* http://www.fws.gov/wetlands/Data/Mapper.html

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Mr. Walls, Mr. Bill, Lennar Homes of California, Inc., Phase I ESA User Questionnaire.

GLOSSARY OF TERMS

Subject Site: The real property being investigated under this Phase I ESA.

Adjacent Properties: Properties which are contiguous with the subject site, or would be contiguous except for a street, road, or other public thoroughfare.

Subject Site Vicinity: Properties located within a 500-foot radius of the subject site.

Environmental Professional: A person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b). The EP may be an independent contractor or an employee of the user.

User: The party seeking to use Practice E 1527 to complete an environmental site assessment of the subject site. A user may include, without limitation, a potential purchaser of the subject site, a potential tenant of the subject site, an owner of the subject site, a lender, or a property manager.

Recognized Environmental Condition (REC): In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a parcel of property, the goal of the processes established by this practice is to identify recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

Controlled Recognized Environmental Condition (CREC): A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). For example, if a leaking underground storage tank has been cleaned up to a commercial use standard, but does not meet unrestricted residential cleanup criteria, this would be considered a CREC. The "control" is represented by the restriction that the property use remain commercial. A condition considered by the environmental professional to be a CREC shall be listed in the findings section of the Phase I ESA report and as an REC in the conclusions section. A condition identified as a CREC does not imply that the environmental professional has evaluated or confirmed the adequacy, implementation, or continued effectiveness of the required control that has been, or is intended to be, implemented.

Historical Recognized Environmental Condition (HREC): A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release an HREC, the environmental professional must determine whether the past release is an REC at the time the Phase I ESA is conducted (for example, if there has been change in the regulatory criteria). If the EP considers the past release to be an REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as an REC.

GLOSSARY OF TERMS (continued)

Potential Area of Concern (PAOC): A term adopted to provide an alternative designation to the REC and HREC for a range of environmental issues related to current subject site uses, historical subject site uses, or from adjacent and/or vicinity property uses. The PAOC is utilized to emphasize full disclosure and provide the User with conclusions and recommendations related to potential environmental issues in connection with the subject site based on Krazan's professional experience in cases where official documentation or other evidence may be absent in order to identify an REC or HREC, thereby aiding the User's considerations of environmental due diligence risk tolerance.

Migrate/migration: For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface. Vapor migration in the subsurface is described in ASTM E 2600-10 guidance; however, nothing in the E 1527-13 practice should be construed to require application of the E 2600-10 standard to achieve compliance with AAI.

De minimis condition: A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Condition determined to be *de minimis conditions* are not RECS or CRECs.

Data Gap: A lack of or inability to obtain information required by this practice despite good faith efforts by the Environmental Professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to the site reconnaissance and interviews.

Data Failure: A failure to achieve the historical research objectives even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.

GLOSSARY OF TERMS (continued)

AAI	All Appropriate Inquiries
AC	Asphalt Concrete
ACM	Asbestos-Containing Materials
AOC	Area of Concern
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
AS	Air Sparging
AUL	Activity & Use Limitations
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
COCs	Constituents of Concern
DEULs	Declaration of Environmental Use Restrictions
DOGGR	Division of Oil, Gas & Geothermal Resources (CA)
DTSC	Department of Toxic Substances Control (CA)
EC	Engineering Control
EDR	Environmental Data Resources, Inc.
EP	Environmental Professional
EPA	United States Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
FOIA	Freedom of Information Act
GPR	Ground Penetrating Radar
HCCD	Haines Criss-Cross Directory
SFIM	Sanborn Fire Insurance Map
HMBP	Hazardous Materials Business Plan
HREC	Historical Recognized Environmental Condition
HVAC	Heating, Ventilation, Air Conditioning
IC	Institutional Control
LBP	Lead-Based Paint
LLP	Landowner Liability Protection
LQG	Large Quantity Generator
LUC	Land Use Control
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
µg/L	Micrograms Per Liter
mg/kg	Milligrams Per Kilogram
mg/L	Milligrams Per Liter
MSDS	Material Safety Data Sheet
MTBE	Methyl Tertiary Butyl Ether
MFR	Multi-Family Residential
ND	Nondetectable
NFA	No Further Action (letter)
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
O&M	Operations & Maintenance Plan
PAOC	Potential Area of Concern
PCB	Polychlorinated Biphenyl
PCC	Portland Cement Concrete
PCE	Perchloroethylene
PEC	Potential Environmental Concern (TS)
PGD	Polk Guide Directory
PG&E	Pacific Gas & Electric
PHCs	Petroleum Hydrocarbon Constituents
PID	Photoionization Detector
ppb	Parts Per Billion
ppm	Parts Per Million
PRG	Preliminary Remediation Goal
PRP	Potentially Responsible Party
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RP	Responsible Party
RWQCB	Regional Water Quality Control Board (CA)
SBA	Small Business Administration
SFR	Single-Family Residential
SPCC	Spill Prevention Control and Countermeasure Plan
SQG	Small Quantity Generator
SCE	Southern California Edison
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWRCB	State Water Resources Control Board
TCE	Trichloroethylene
TPH	Total Petroleum Hydrocarbons
TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-MO	Total Petroleum Hydrocarbons as Motor Oil
TS	Transaction Screen
USGS	United States Geological Survey
USFWS	United States Fish & Wildlife Service
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
VES	Vapor Encroachment Screening
VOCs	Volatile Organic Compounds

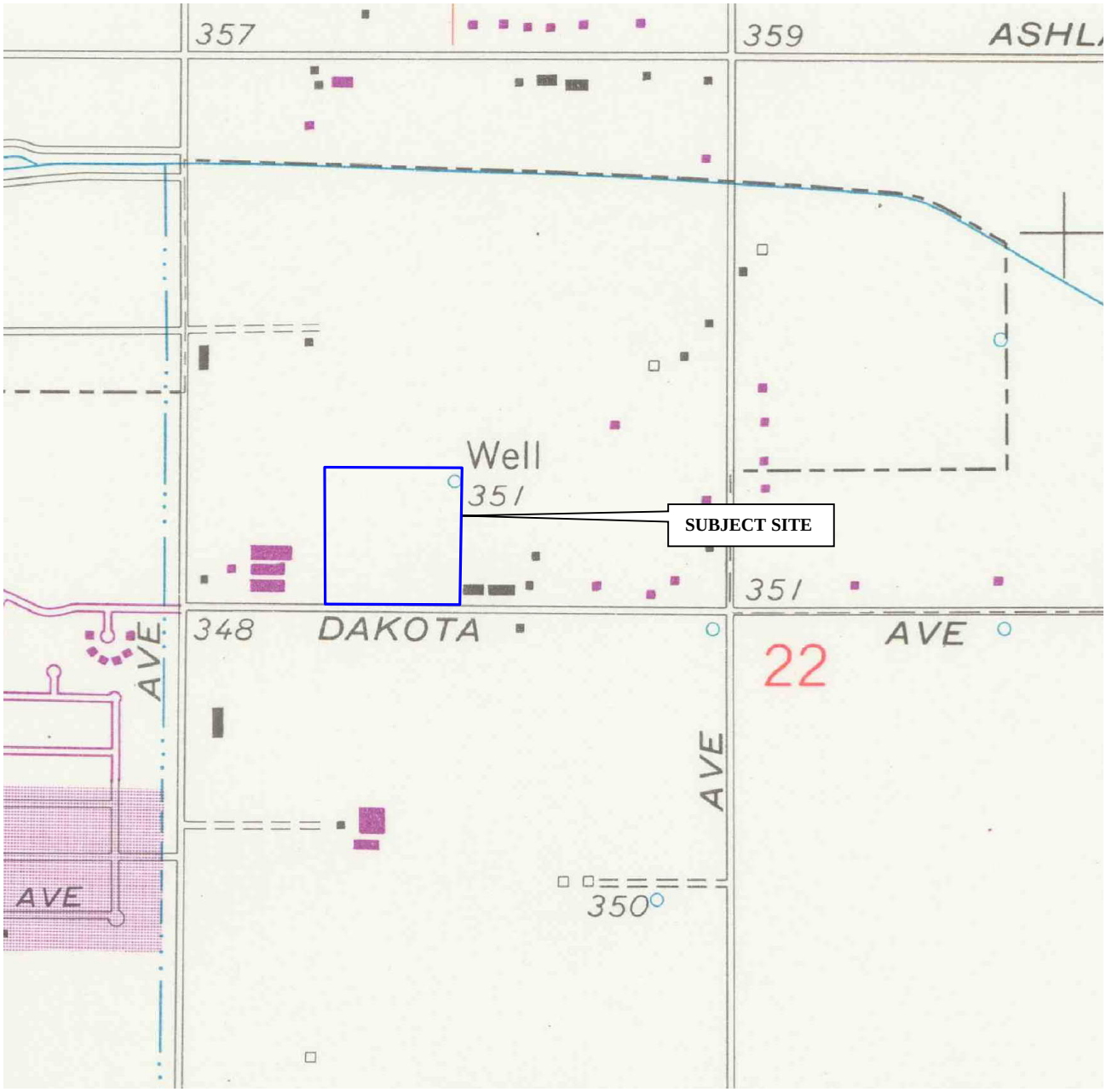
= SUBJECT SITE BOUNDARY

VICINITY MAP	Scale: NTS	Date: June 2021	Krazan
PALOUTZIAN PROPERTY 3518 N. FOWLER AVENUE (ANCHOR ADDRESS) A PORTION OF APN 310-201-03 FRESNO, CALIFORNIA 93727	Drawn By: BV	Approved by: BV	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western U. S.*
	Project No. 014-21099	Figure No. 1	

= SUBJECT SITE BOUNDARY (APPROXIMATE)

= MOUNDED SOIL/MATERTIAL OF UNKNOWN COMPOSITION
= NON-OPERATIONAL AGRICULTURAL WATER WELL
= APPARENT AGRICULTURAL WATER WELL (SUBMERSIBLE PUMP)
= SUBSURFACE IRRIGATION-TYPE FEATURE REPORTED TO BE AN AGRICULTURAL WATER WELL
= APPROXIMATE LOCATION OF HISTORICAL STRUCTURES (1950 AERIAL PHOTOGRAPH)

SITE MAP	Scale: NTS	Date: June 2021	Krazan
PALOUTZIAN PROPERTY 3518 N. FOWLER AVENUE (ANCHOR ADDRESS) A PORTION OF APN 310-201-03 FRESNO, CALIFORNIA 93727	Drawn By: BV	Approved by: BV	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western U. S.*
	Project No. 014-21099	Figure No. 2	



7.5-MINUTE SERIES
USGS TOPOGRAPHIC MAP
CLOVIS, CALIFORNIA
DATED 1964
PHOTOREVISED 1972

= SUBJECT SITE BOUNDARY

TOPOGRAPHIC MAP **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** NTS	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***With Offices Serving the Western U. S.***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Figure No.** 3	

Photo 1: Eastern-facing view of the southwestern and central-southern portions of the subject site.

Photo 2: Northern-facing view of the central-southern and central portions of the subject site.

Photo 3: Southern-facing view of the central-eastern and southeastern portions of the subject site.

Photo 4: Northern-facing view of the northeastern and central-eastern portions of the subject site.

Photo 5: Western-facing view of the northeastern and central-northern portions of the subject site.

Photo 6: Southern-facing view of the central-northern and central portions of the subject site.

Photo 7: Southern-facing view of the northwestern and central-western portions of the subject site.

Photo 8: Eastern-facing view of the central-western and central portions of the subject site.

Photo 9: View of materials and equipment located in the southwestern portion of the subject site.

Photo 10: View of two empty drums and a drum partially filled with trash located in the southwestern portion of the subject site.

Photo 11: View of mounded soil located in the southwestern portion of the subject site on/near the property boundary.

Photo 12: View of mounded materials of unknown composition and farm equipment located in the southwestern portion of the subject site.

Photo 13: View of a non-operational apparent former agricultural water well located in the northeastern portion of the subject site.

Photo 14: View of a potential agricultural water well with submersible pump located in the northeastern portion of the subject site.

Photo 15: View of an apparent irrigation feature located in the northeastern portion of the subject site reported by the property owner to be an agricultural water well.

Photo 16: View of the equipment and materials storage area located adjacent to the west of the subject site.

Photo 17: View of the greenhouses and fallow/vacant land located adjacent to the west of the subject site.

Photo 18: View of the fallow/vacant land located adjacent to the south of the subject site.

Photo 19: View of the church facility located adjacent to the north of the subject site.

Photo 20: View of the pasture and rural residence located adjacent to the east of the subject site.

Appendix A

7555 N. Palm Ave., Ste 210
Fresno, CA 93711
Office Phone: (559)225-1761
Office Fax: (559)229-6478
Robin.Davis@lennartitle.com

Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.
7555 N. Palm Ave., Ste 210
Fresno, CA 93711
Attn: Robin Davis

Your Ref:
Our Order No.: 155602-000203
Version No. 1
Property Address: 3518 North Fowler Avenue, Fresno, CA 93727

Preliminary Report Dated as of April 23, 2021 at 07:30 AM.

IN RESPONSE TO THE ABOVE REFERENCED APPLICATION FOR A POLICY OF TITLE INSURANCE,

North American Title Insurance Company

Hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and limitations on covered risks of said Policy or Policies are set forth in Exhibit A attached. The Policy to be issued may contain an Arbitration Clause. When the amount of insurance is less than that set forth in the Arbitration Clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the Parties. Limitations on covered risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a deductible amount and a maximum dollar limit of liability for certain coverages are also set forth in Exhibit A. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The form of Policy of title insurance contemplated by this report is:

Please note that the America First Homeowner's Policy (CLTA/ ALTA Homeowner's Policy) can only be issued on transactions involving individuals as purchasers and residential 1-4 properties. Any indication that the America First Homeowner's Policy (CLTA/ ALTA Homeowner's Policy) will be issued in a transaction that does not meet these criteria is hereby revised to state that the policy contemplated is a Standard Coverage Policy.

Pam Duerr, Title Officer

SCHEDULE A

1. The estate or interest in the land herein after described or referred to covered by this report is:

   Fee Simple

2. Title to said estate or interest at the date hereof is vested in:

   Lucy Anne Paloutzian, Joyce Paloutzian and James Paloutzian

3. Real Property in the City of Fresno, County of Fresno, State of California, described as follows:

See attached Legal Description

LEGAL DESCRIPTION

Real Property in the City of Fresno, County of Fresno, State of California, described as follows:

SOUTH ONE-HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 13 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN

APN: 310-201-03

SCHEDULE B

At the date hereof exceptions to coverage in addition to the printed exceptions and exclusions in the policy form designated on the face page of this report would be as follows:

NOTE: IT IS THE RESPONSIBILITY OF ALL PARTIES INVOLVED TO REVIEW EVERY ITEM CONTAINED IN THIS PRELIMINARY REPORT, INCLUDING BUT NOT LIMITED TO THE ITEM(S) HIGHLIGHTED HEREIN FOR YOUR IMMEDIATE ATTENTION TO BE PAID AND/OR RESOLVED AT OR BEFORE CLOSING, BEFORE A TITLE POLICY IS ISSUED.

1. General and special taxes and assessments for the fiscal year 2021-2022, a lien not yet due or payable.

2. Taxes for proration purposes only for the fiscal year 2020-2021.
First Installment: $2,155.67, PAID
Second Installment: $2,155.67, PAID
Tax Rate Area: 005-162
APN: 310-201-03

3. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

4. Water rights, claims or title to water, whether or not shown by the public records.

5. Rights of the public in and to any portion of said lands lying within N. Fowler or E. Dakota roadways

6. An easement for installing and operating underground storm drainage pipelines and incidental purposes, recorded December 21, 1984 as Instrument No. 84123986 of Official Records.

   In Favor of: Fresno Metropolitan Flood Control District, a California public agency
   Affects: The East 20.00 feet

7. The effect of an instrument entitled "Before the Board of Directors of the Fresno Metropolitan Flood Control District Resolution Providing for the Recordation of a Map Identifying Areas Subject to Payment of Drainage Fees and/or Requirements to Construct Planned Local Drainage Facilities", executed by Fresno Metropolitan Flood Control District and City of Fresno, recorded July 31, 1995 as instrument no. 95092128 of Official Records.

8. Any lien, assessment, and/or violation or enforcement of any law, ordinance, permit or governmental regulation arising from the document entitled “Notice of Public Nuisance or Housing Violation Abatement Action” recorded “February 20, 2004” as “Instrument No. 2004-0039340“ of Official Records.

9. The terms and provisions contained in the document entitled "Sierra and Navelencia Resource Conservation District Consolidation", recorded February 18, 2009 as Instrument No. 2009-0023421 of Official Records.

   Reference is hereby made to said document for full particulars

10. The effect of a document entitled "Revocable Transfer on Death (TOD) Deed", recorded August 21, 2019 as Instrument No. 2019-93961 of Official Records.

    Said deed will not be relied upon without underwriting approvals.

11. We find no open deeds of trust, and will require the Open Loans Affidavit form to be submitted for review prior to close.

12. Any rights, interests, or claims of parties in possession of the land not shown by the public records.

**********END OF REPORT**********

**********NOTES**********

NOTICE OF RECORDING PROCEDURE
Pursuant to Cal. Revenue & Tax Code §480.3, all Deeds and other Documents that reflect a change in ownership must be accompanied by a Preliminary Change of Ownership Report to be completed by the transferee. If this special report is not presented at the time of recording, an additional recording fee of $20.00, as required by law, will be charged. Preliminary Change in Ownership forms, instructions on how to complete them, and a nonexclusive list of documents that are affected by this change, are available from the County Recorder's Office or the Office of the County Assessor.

Effective January 1, 2018, Cal. Government Code §27388.1 imposes an additional fee of $75.00 to be paid at the time of recording for every real estate instrument, paper, or notice required or permitted by law to record, except those expressly exempted from payment.

GOOD FUNDS LAW
Under Section 12413.1 of the California Insurance Code, **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.** may only make funds available for disbursement in accordance with the following rules:

Same day availability. Disbursement on the date of deposit is allowed only when funds are deposited to **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.** by Cash or Electronic Transfer (Wire). Cash will be accepted only under special circumstances and upon approval by management.

Next business day availability. If funds are deposited to **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.** by cashier's checks, certified checks or teller's checks, disbursement may be on the next business day following deposit. A “teller's check” is one drawn by an insured financial institution against another insured financial institution (e.g., a savings and loan funding with a check drawn against a FDIC insured bank).

Second business day availability. If the deposit is made by checks other than those described in paragraphs 1 and 2 above, disbursement may occur on the day when funds must be made available to depositors under Federal Reserve Regulation CC. In most cases, these checks will be available on the second business day following deposit. (For further details, consult California Insurance Code Section 12413, et seq. and Regulation CC).

These are the minimum periods before funds will be made available. **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. i**s not obligated to disburse funds at the expiration of the time periods above, and expressly reserves the right to require additional time before disbursing on deposited funds. Close of escrow and final disbursement will not be made based on deposits in the form of personal checks, corporate checks, credit union checks, money market checks, travelers checks and official checks until confirmation of final clearance of the funds.

Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. will not be responsible for accruals of interest or other charges resulting from compliance with the disbursement restrictions imposed by state law.

Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. charges for recording the transaction documents include charges for services performed by **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.,** in addition to an estimate of payments to be made to governmental agencies.

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

The map attached, if any, may or may not be a survey of the land depicted hereon. **Lennar Title, Inc. f/k/a CalAtlantic Title, Inc.** expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

Additional Notes:

AFFILIATED BUSINESS ARRANGEMENT DISCLOSURE

Referring Party: Lennar Title, Inc., CalAtlantic Title, Inc., Lennar Title, LLC, or Lennar Closing Services, Inc., as applicable ("Lennar Title")

This is to give notice that Lennar Title has a business relationship with North American Title Insurance Company ("NATIC") and Lennar Insurance Agency, LLC ("LIA") because Lennar Title's parent, Lennar Title Group, LLC ("LTG"), has an indirect 20% ownership interest in NATIC's parent company and an 80% ownership interest in LIA. Because of this relationship, this referral of services may provide Lennar Title a financial or other benefit.

Set forth below are the estimated charges or range of charges for the settlement services provided by NATIC and LIA. You are NOT required to use NATIC or LIA as a condition for closing your transaction and obtaining insurance.

THERE ARE FREQUENTLY OTHER SETTLEMENT SERVICE PROVIDERS AVAILABLE WITH SIMILAR SERVICES. YOU ARE FREE TO SHOP AROUND TO DETERMINE THAT YOU ARE RECEIVING THE BEST SERVICES AND THE BEST RATE FOR THESE SERVICES.

Title Insurance Fees

Lennar Title provides closing services and title insurance through numerous title insurance underwriters, one of which is NATIC. If NATIC is selected as the title insurer, the following fees apply:

10% - 40% of costs for lender's and/or owner's title insurance, as applicable, depending on the property state, and as shown on the Loan Estimate and/or Closing Disclosure provided by your lender.

Contact your local CAT representative for a more detailed title insurance quote based on your specific transaction.

Insurance

Lennar Insurance Agency, LLC (LIA) is an insurance agent that provides, among other products, homeowner's/hazard and flood insurance. Set forth below are the estimated range of charges by LIA for the settlement services listed.

Description of Settlement Service	Range of Charges - Annual Premium
Homeowner's/Hazard Insurance	0.2% - 2.5% of purchase price amount
Flood Insurance	0.1% - 0.5% of purchase price amount

NOTE: The above premium ranges for homeowner's/hazard and flood insurance are from LIA. If enhancements to the standard policy such as increased limits, scheduled articles, and/or earthquake coverage are required, the premium may increase. Actual quote and acceptance by LIA is subject to LIA's application of their underwriting guidelines, including but not limited to verification of your credit score and previous loss history. Of course, the cost of your insurance may vary due to many factors including, without limitation, the size, location and cost of your home.

ACKNOWLEDGMENT

I/we have read this disclosure form, and understand that Lennar Title is referring me/us to purchase the above-described settlement service and may receive a financial or other benefit as the result of this referral.

Buyer/Borrower:

_____

_____

Date: _____

Seller:

_____

_____

Date: _____

LENNAR TITLE, INC. F/K/A CALATLANTIC TITLE, INC.
7555 N. Palm Ave., Ste 210
Fresno, CA 93711
Office Phone: (559)225-1761
Office Fax:

Attention:

Your Ref:
Our Order No.: 155602-000203

LENDERS SUPPLEMENTAL REPORT

Dated as of April 23, 2021 at 07:30 AM.

Title Officer: Pam Duerr

The above numbered report (including any supplements or amendments thereto) is hereby modified and/or supplemented in order to reflect the following additional items relating to the issuance of an American Land Title Association loan form policy of Title Insurance:

Our ALTA Loan Policy, when issued, will contain ALTA 9-06, ALTA 8.2-08 and ALTA 22-06
There is located on said land a Single Family
Known as: 3518 North Fowler Avenue, Fresno, CA 93727
City of Fresno
County of FresnoState of California.

NOTE: According to the public records, there have been no Deeds conveying the land described herein within a period of 24 months prior to the date of this Report, except as follows: **none**

Privacy Notice

Rev. December 2020

Lennar Title Group Family of Companies

FACTS	WHAT DOES LENNAR TITLE GROUP, LLC FAMILY OF COMPANIES ("LTG") DO WITH YOUR PERSONAL INFORMATION?
Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some, but not all, sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: • Social Security number and income • Transaction history and payment history • Purchase history and account balances When you are *no longer* our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information, the reasons LTG chooses to share, and whether you can limit this sharing.

Reasons we can share your personal information	Does LTG share?	Can you limit this sharing?
For our everyday business purposes – such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes – to offer our products and services to you	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes – information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes – information about your creditworthiness	No	We don't share
For our affiliates to market to you	Yes	Yes
For nonaffiliates to market to you	No	We don't share

To limit our sharing	• Send an email with your name, property address, and/or file # to privacy@lennartitle.com • Mail the form below
Questions?	Call 1 (844) 654-5408 or go to https://www.lennartitle.com

✂----------

Mail-in Form	
If you have a joint account, your choice(s) will apply to everyone on your account unless you mark below. ☐ Apply my choices only to me.	Mark any/all you want to limit: ☐ Do not allow your affiliates to use my personal information to market to me. Name Address City, State, Zip Account #

Mail To: **Lennar Title Group, LLC Family of Companies**
ATTN: Corporate Counsel
730 Northwest 107th Avenue, Suite 400
Miami, FL 33172

Who we are	
Who is providing this notice?	LTG (identified below), which offers title insurance and settlement services and property and casualty insurance.
What we do	
How does LTG protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secure files and buildings.
How does LTG collect my personal information?	We collect your personal information, for example, when you • apply for insurance or apply for financing • give us your contact information or provide your mortgage information • show your government-issued ID We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.
Why can't I limit all sharing?	Federal law gives you the right to limit only • sharing for affiliates' everyday business purposes – information about your creditworthiness • affiliates from using your information to market to you • sharing for nonaffiliates to market to you State laws and individual companies may give you additional rights to limit sharing.
Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. • *Our affiliates include companies with a Lennar name; financial companies such as Lennar Mortgage, LLC, CalAtlantic Mortgage, Inc., and Northwest Mortgage Alliance, North American Title Insurance Company, and Lennar Insurance Agency, LLC; and nonfinancial companies, such as Lennar Corporation, Lennar Multifamily Companies, Lennar Commercial, Lennar Homes USA, Lennar Family of Builders, CalAtlantic Homes, Lennar Sales Corp., SPH Title, Inc., Sunstreet Energy Group, and Five Point Communities*.
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. • *Nonaffiliates we share with can include collection agencies, IT and telecommunication service providers, appraisers, companies that perform marketing services on our behalf, and consumer reporting agencies*.
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you. • *LTG doesn't jointly market.*

LTG consists of the following entities:

Lennar Title, Inc.

Lennar Title, Inc. d/b/a Lennar Closing Services, Inc.

CalAtlantic Title, LLC

Lennar Title, LLC

CalAtlantic National Title Solutions, LLC

CalAtlantic Title, Inc.

CLTA Preliminary Report Form - Exhibit A (Rev. 05-06-16)

CLTA STANDARD COVERAGE POLICY - 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

13. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

    (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

14. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.

15. Defects, liens, encumbrances, adverse claims or other matters:
    (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
    (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
    (c) resulting in no loss or damage to the insured claimant;
    (d) attaching or created subsequent to Date of Policy; or
    (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate

    or interest insured by this policy.

16. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.

17. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.

18. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:

a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
c. that result in no loss to You; or
d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.

5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.
   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or $5,000 (whichever is less)	$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or $2,500 (whichever is less)	$5,000

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14);
   or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

   The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II,[t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.]

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
1. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
2. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
3. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
4. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:
[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown in the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY - ASSESSMENTS PRIORITY (04-02-15)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

OPEN LOANS AFFIDAVIT

Order No.: 155602-000203
Escrow No.: 155602-000203

_____ of legal age, hereby declares and swears, under penalty of perjury that the following information, declarations, representations and answers are true, correct and complete:

1. I am the current owner of the property in this transaction which has an address of:

   3518 North Fowler Avenue, Fresno, CA 93727

2. That the following is a complete and comprehensive list of all open loans taken out against said land:
   (If no open loans, please write NONE on the 1st Current Lender Line and initial).

   1.) Current Lender: _____ Loan Balance $_____
   Original Lender: _____ Original Loan Amount: $_____
   Are you in default of this Loan: ☐ YES ☐ NO IF YES, how long (____) MONTHS

   2.) Current Lender: _____ Loan Balance $_____
   Original Lender: _____ Original Loan Amount: $_____
   Are you in default of this Loan: ☐ YES ☐ NO IF YES, how long (____) MONTHS

   3.) Current Lender: _____ Loan Balance $_____
   Original Lender: _____ Original Loan Amount: $_____
   Are you in default of this Loan: ☐ YES ☐ NO IF YES, how long (____) MONTHS

   4.) Current Lender: _____ Loan Balance $_____
   Original Lender: _____ Original Loan Amount: $_____
   Are you in default of this Loan: ☐ YES ☐ NO IF YES, how long (____) MONTHS

3. I understand and acknowledge that this Affidavit is made for the protection and benefit of Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. and for all other parties hereafter dealing with or who may acquire an interest in said Property and for the purpose of inducing Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. (including its affiliates and underwriters) to insure title to said Property. I am fully aware and know that Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. will rely on this Affidavit and would not insure title without it. We also hereby agree to indemnify and hold Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. harmless and to become fully financially responsible for any loss that may occur to Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. or any other parties if any of the information, declarations, representations and answers turn out to not be true, correct and/or complete, whether by accidental omission or actual deceit and/or fraud.

Date: _____

By: _____ **By:** _____

File No.: 155602-000203

OWNER'S DECLARATION

The undersigned Owner(s), of legal age, being duly sworn, deposes and states under penalty of perjury under the laws of the State of California.

1. That certain real property (the "Property") as described in that certain Commitment of Title Insurance/Preliminary Report No. 155602-000203 dated as of ("Commitment/Report") issued by or on behalf of Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. is improved by the following (check all that apply)

   ☐ Single family residences
   ☐ Apartment building
   ☐ Commercial building
   ☐ Industrial building
   ☐ One-to-four family residences
   ☐ Office building
   ☐ Combination office/commercial building
   ☐ Vacant Land
   ☐ Other: _____

2. WORK OF IMPROVEMENT: Please respond to A, B and C below:

   A. For the period of 90-days prior to the date of this Affidavit, no repairs or work of improvement has been conducted on, nor any materials supplied to, the Property except as follows:

   _____

   _____

   _____
   (Enter "None" if such is true.)

   If you have described any work of improvement above, please complete the following:

   ☐ Started on _____, 20_____.
   ☐ Completed on _____, 20_____.
   ☐ Will be completed on _____, 20_____.

   B. Cessation of Labor (Please place an "X" by 1 or 2 below):

   ☐ 1. There has been a cessation of labor where a work of Improvement was discontinued before completion within 150 days of the date of this Affidavit.
   PLEASE DESCRIBE THE NATURE OF THE WORK THAT DISCONTINUED:

   _____

   _____

   _____

   ☐ 2. There has not been a cessation of labor where a work of improvement was discontinued before completion within 150 days of the date of this Affidavit.

   C. There are no unpaid bills for labor or material because of any improvements made to the Property except:

   _____

   _____

   _____

(Enter "None" if such is true.)

3. No one is in possession of, or has any right to possession of, the Property except:

   ☐ Declarant as owner.
   ☐ Tenants based only on month-to-month rental agreements.
   ☐ Tenants based upon existing leases as listed on the Rent Roll attached hereto as **Exhibit A** and incorporated herein by reference.
   ☐ Other: _____

4. No person(s) or entitles, have (i) any options to purchase or rights of first refusal, including but not limited to lessees under any leases referred to in Paragraph 3 above, and/or (ii) easements, licenses, agreements or other rights allowing them to use, encroach on, or access to the Property except (i) as shown in the Commitment/Report, and (ii)

   _____

   _____

   _____

   (Enter "None" if such is true.)

5. Those certain lease(s) shown as exception number(s) _____ in the Commitment/Report have either: (a) expired by their own terms, or (b) if they have not expired, the lessee(s) have vacated the Property and Declarant has been notified of the vacation of the Property either by correspondence from the lessee or by physical inspection of the property.

6. To the best of Declarant's knowledge, there are no unrecorded real property taxes or assessments against the Property.

   The undersigned is not aware of any release reports or commitment statements which have been issued pertaining to any environmental issues or liens.

7. This Affidavit is given for the purpose of inducing Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. and its agents to issue policy(ies) of title insurance which may provide coverage with respect to all matters set forth herein. If Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. elects, in its discretion, to (a) accept this Affidavit, and (b) issue title insurance policy(ies) to third parties, Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. will do so in material reliance on this Affidavit and the representation and covenants in this Affidavit.

8. Declarant acknowledges that he/she has read this Affidavit, that all the statements made in this Affidavit are true and correct of his/her own actual knowledge, and fully understands the legal aspects of any misrepresentations or untrue statements made in this Affidavit. Declarant, both personally and on behalf of Owner, covenants and agrees to defend, indemnify, and hold Lennar Title, Inc. f/k/a CalAtlantic Title, Inc. harmless from and against any and all claims, actions, suits (including arbitration), liabilities, losses, damages, costs, charges, attorney's fees and other expenses of every nature and character as a result of its reliance on this Affidavit.

Executed on _____, 20_____, at _____, _____
(City) (State)

"Declarant"

_____
Owner

_____
Owner

A notary public or other Officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA) SS
COUNTY OF _____)

On _____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

_____

This area for official notarial seal

LENNAR TITLE

formerly known as CalAtlantic Title

Congratulations! We're excited that your closing appointment has been set.

Our Customers' and Associates' safety are our #1 priority at our Company. With that said, prior to your upcoming visit to our title office, we would like to ask you a few questions:

1. *Have you returned from international travel within the last 14 days?*

2. *Have you or household family members had close contact with or cared for someone diagnosed with COVID-19 within the last 14 days?*

3. *Have you experienced any cold or flu-like symptoms in the last 14 days (fever, cough, sore throat, respiratory illness, difficulty breathing)?*

If the answer is NO to all of the above, please reply to confirm your appointment.

If the answer is YES to any of the above, please reply to this email and call your escrow officer to coordinate an alternative for the closing of your home.

Thank you for letting us know and if for any reason the situation in your home changes relative to any of the above, please let us know in advance of our upcoming visit.

7555 N. Palm Ave., Ste 210
Fresno, CA 93711
Phone (559)225-1761 Fax (559)229-6478

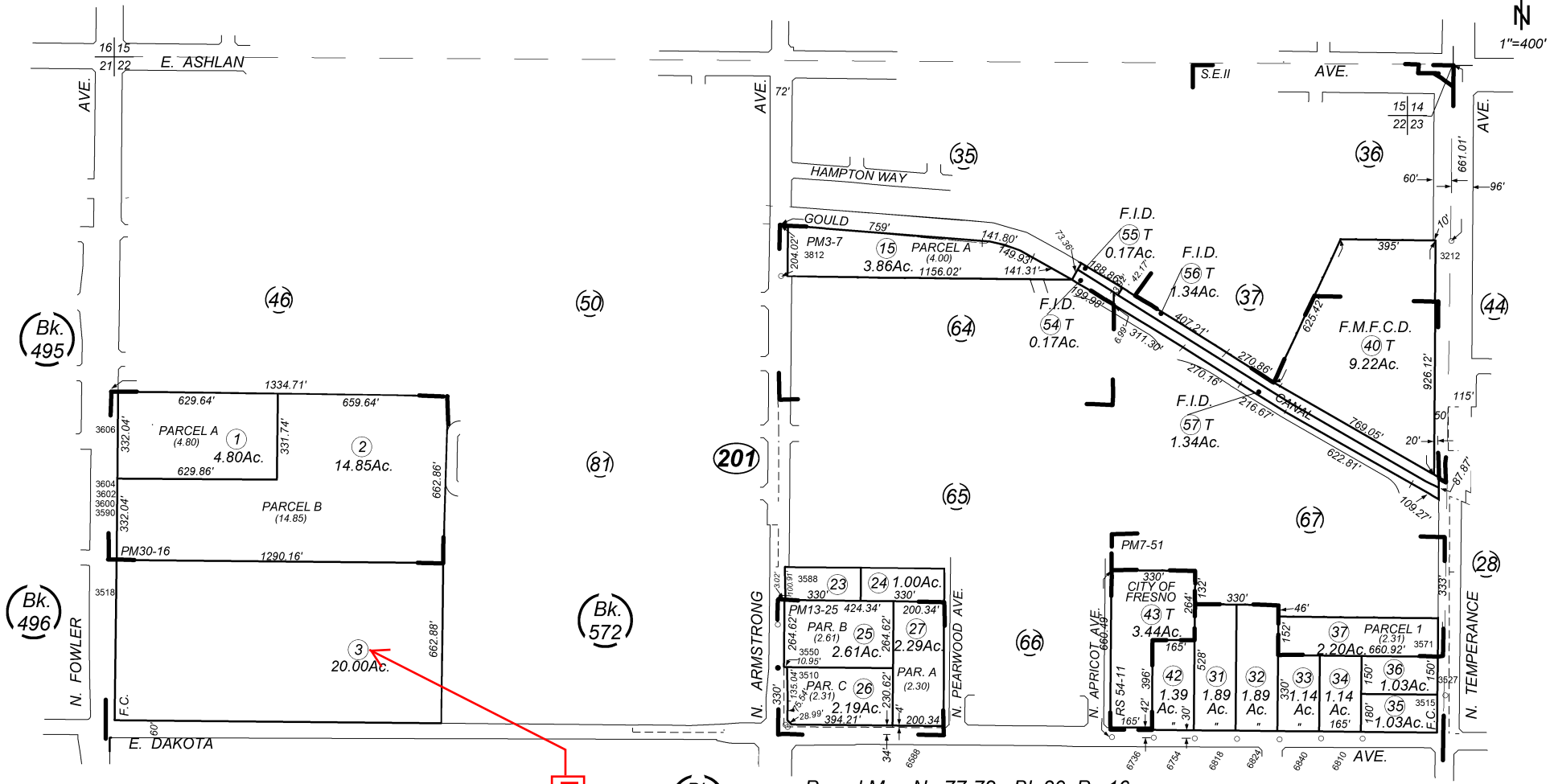
Description: Fresno,CA Assessor Map - Book.Page 310.20 Page: 1 of 1
Order: 2 Comment:

-NOTE-
This map is for Assessment purposes only. It is not to be construed as portraying legal ownership or divisions of land for purposes of zoning or subdivision law.

SUBDIVIDED LAND IN POR. SEC.22, T.13 S., R.21 E., M.D.B. & M.

Tax Rate Area
1-043
5-162
5-331
5-348

310-20



Fincher's Colony - Plat Bk.4, Pg.63
Parcel Map - Bk.3, Pg.7
Parcel Map No.1231 - Bk.7, Pg.51
Parcel Map No.2083 - Bk.13, Pg.25

Parcel Map No.77-72 - Bk.30, Pg.16
Seville Estates II - Tr. No.4195 - Plat Bk.52, Pgs.24 & 25
Record of Survey - Bk. 54, Pg. 11

Assessor's Map Bk.310 - Pg.20
County of Fresno, Calif.

Note - Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

4/2/2019

Appendix B

Phase I ESA User Questionnaire
Paloutzian Property
3518 N. Fowler Avenue; APN 310-201-03
Fresno, California 93727

Respondent Information:

Name: Bill Walls
Company: Lennar Homes of California, Inc.
Date: June 1, 2021
Phone: 559-437-4269

Introduction

"In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfield Revitalization Act of 2001 (the 'Brownfields Amendments'), the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that 'all appropriate inquiry' is not completed"- American Society for Testing and Materials (ASTM) E1527-05 Appendix X3: User Questionnaire

1. Are you aware of any environmental cleanup liens against the subject site that are filed or recorded under federal, tribal, state, or local law?

I am not aware of any envinmental cleanup liens agains the subject site that are filed or recorded under federal, tribal, state, or local law.

2. Are you aware of any activity use limitations (AULs) such as engineering controls, land use restrictions, or institutional controls that are in place at the subject site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

I am not aware of any activity use limitations such as engineering controls, land use restrictions, institutional controls that are that are in place at the subject site and/or have filed or recorded in a registry under federal, tribal, state, or local law.

3. As the user of the Phase I Environmental Site Assessment (ESA), do you have any specialized knowledge or experience related to the subject site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject site or an adjacent property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Lennar is currently developing the Sterling Acres community directly across the street from the subject site the improvements for the Sterling Acres community did not impact the subject site.

4. Does the purchase price being paid for the subject site reasonably reflect the fair market value of the subject site? (Yes) No

   A. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the subject site?

   At this time we have not considered a lower purchase price if contamination is know or believed to be present at the subject site.

5. Are you aware of commonly known or reasonably ascertainable information about the subject site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

A. Do you know the past uses of the subject site? If so, briefly explain.
The past uses of the property include rural residential and agricultural uses.

B. Do you know of specific chemicals that are present or once were present at the subject site? If so, briefly explain.
I am not aware of any specific chemicals that are present or once were present at the subject site.

C. Do you know of spills or other chemical releases that have taken place at the subject site? If so, briefly explain.
I am not aware of any spills or other chemical releases that have taken place at the subject site.

D. Do you know of any environmental cleanups that have taken place at the subject site? If so, briefly explain.
I am not aware of any environmental cleanups that have taken place at the subject site.

6. As the user of the Phase I ESA, based on your knowledge and experience related to the subject site, are there any obvious indicators that point to the presence or likely presence of contamination at the subject site?
As the user of the Phase I ESA, I am not aware of any obvious indicators that point to the presence or likely presence of contamination at the subject site.

7. What is the reason for preparation of this Phase I ESA? (Property purchase/sale; bank loan; proposed development; etc.)
The request for the preparation of the Phase I ESA is related to the due diligence for the purchase of the property.

I, the user of this Phase I ESA (or authorized representative of the User), do hereby attest that I have carefully considered the questions herein and have presented answers to the best of my knowledge and ability based upon the Responsibilities of the User as required within ASTM E1527-05 guidance.

Name Bill Walls Date June 1, 2021
(Please Print)

Signature _____

Appendix C

= **Subject Site Boundary (Approximate)**

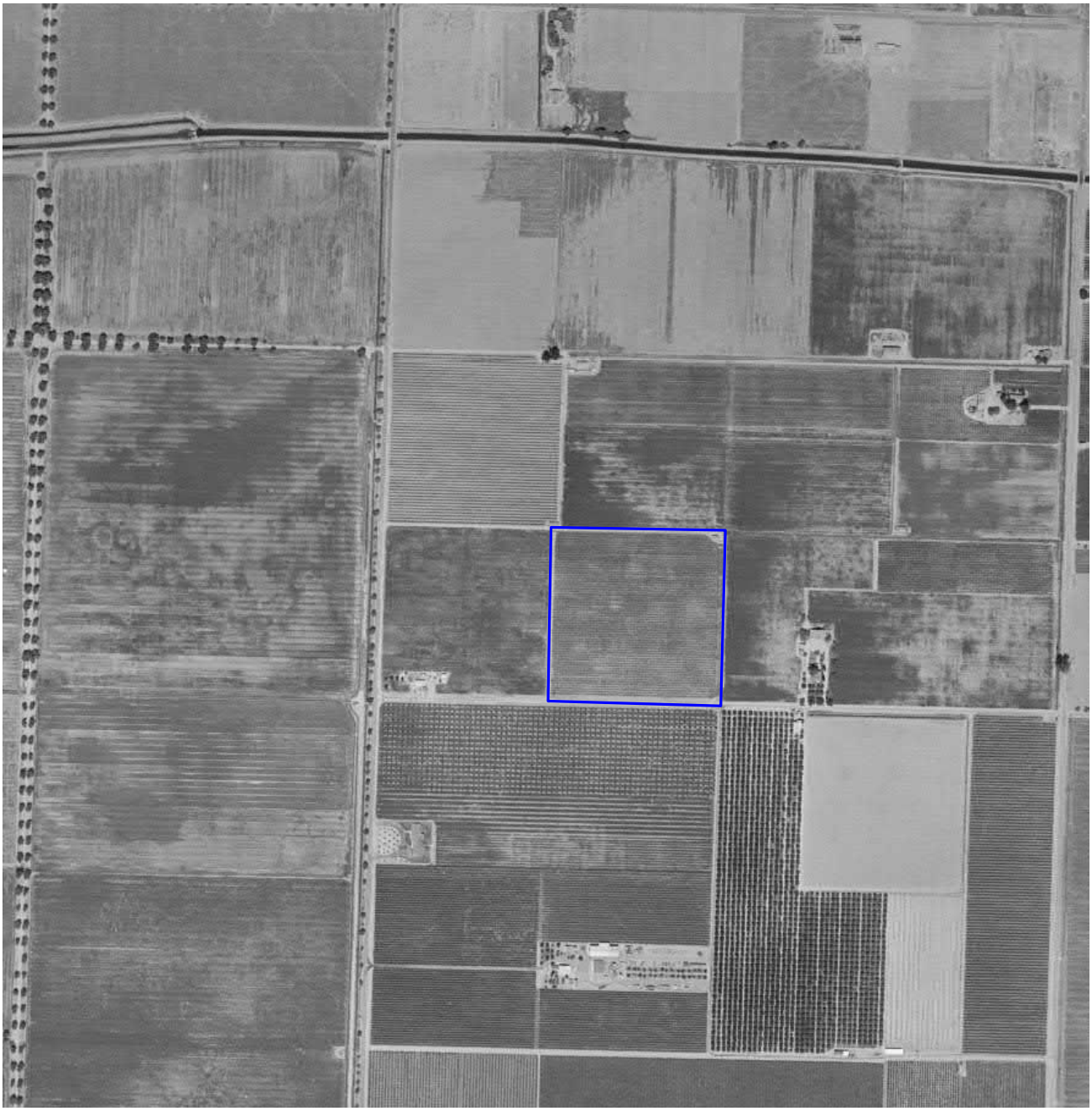
1937 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1946 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1950 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

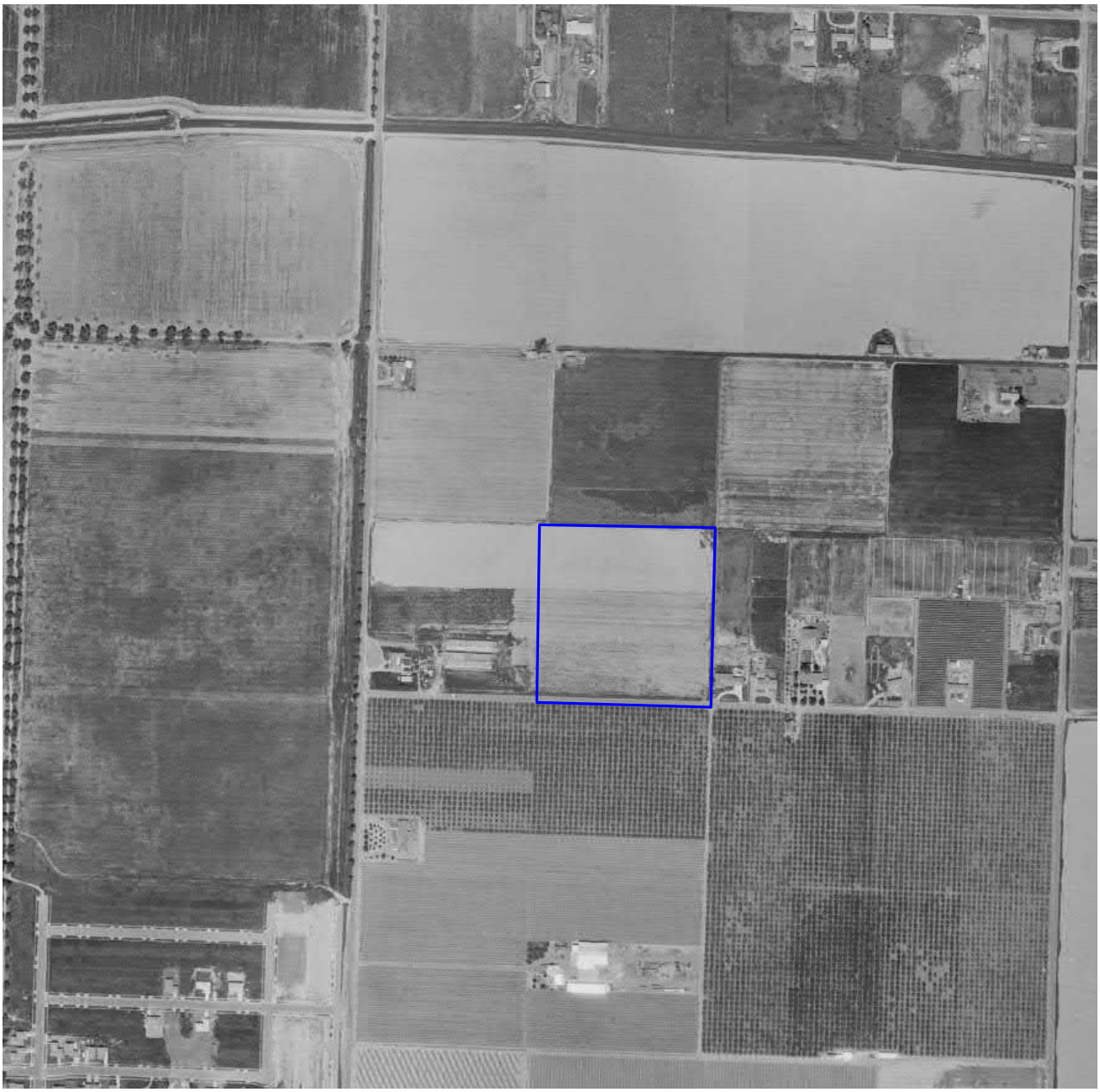


= **Subject Site Boundary (Approximate)**

1957 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1962 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	



= **Subject Site Boundary (Approximate)**

1967 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1973 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1979 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1984 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

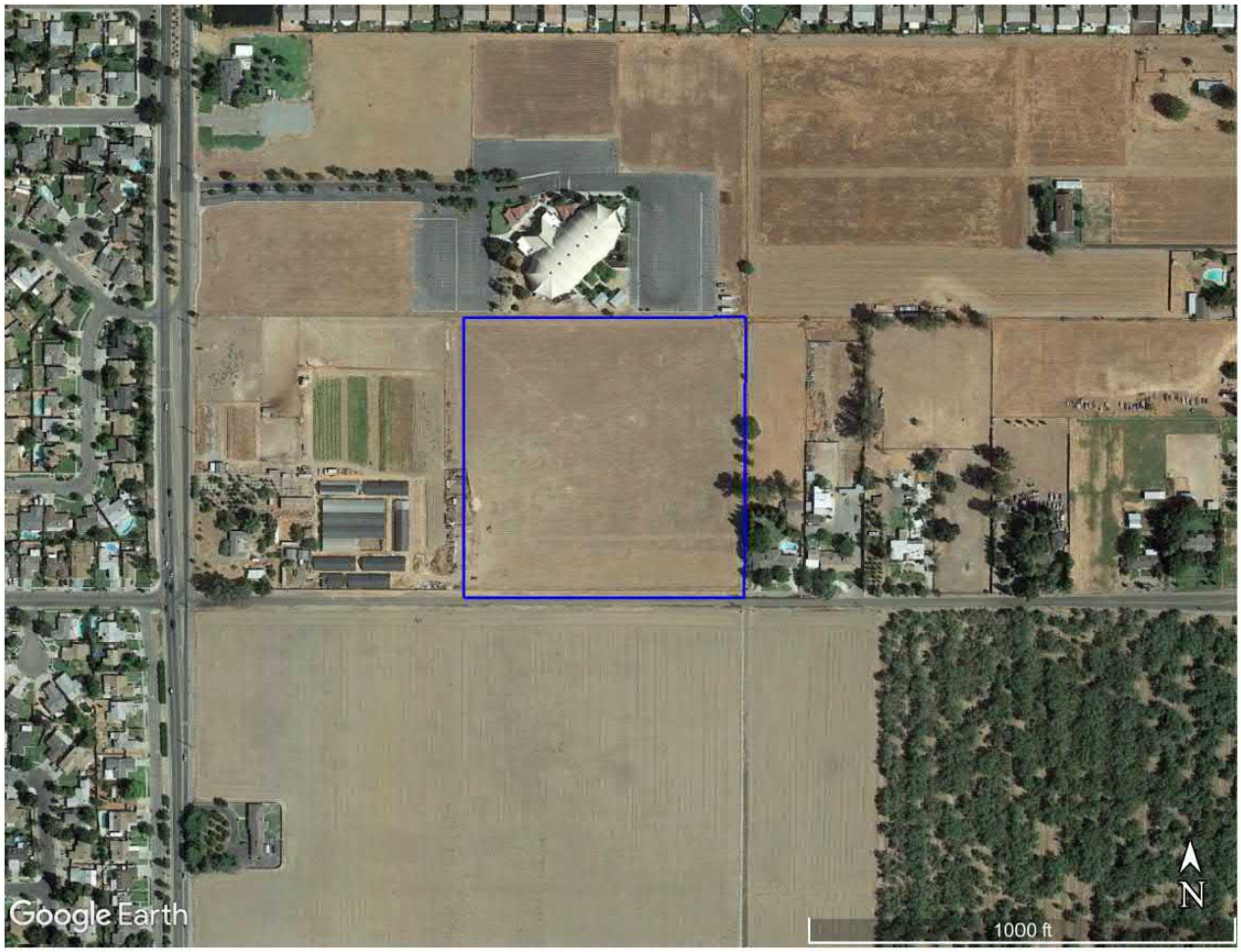
1987 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** 1" = 500'	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

= **Subject Site Boundary (Approximate)**

1998 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** See Image	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

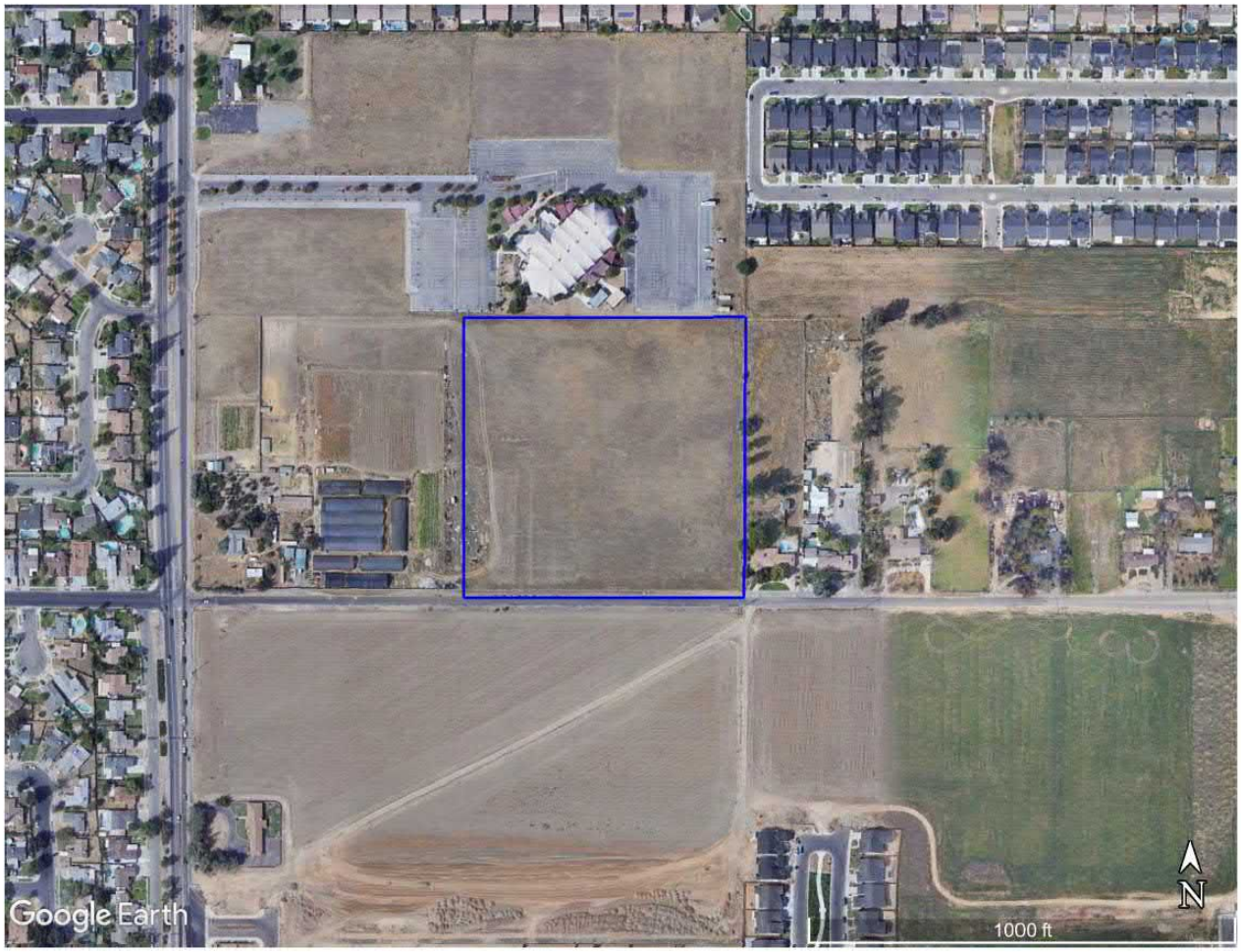
= **Subject Site Boundary (Approximate)**

2005 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** See Image	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	



= **Subject Site Boundary (Approximate)**

2012 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** See Image	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	



= **Subject Site Boundary (Approximate)**

2019 AERIAL PHOTOGRAPH **PALOUTZIAN PROPERTY** **3518 N. FOWLER AVENUE** **(ANCHOR ADDRESS)** **A PORTION OF APN 310-201-03** **FRESNO, CALIFORNIA 93727**	**Scale:** See Image	**Date:** June 2021	Krazan **SITE DEVELOPMENT ENGINEERS** ***Offices Serving the Western United States***
	Drawn By: BV	**Approved by:** BV	
	Project No. 014-21099	**Source:** EDR	

Appendix D

Paloutzian Property
3518 N. Fowler Avenue
Fresno, CA 93727

Inquiry Number: 6512846.5
May 27, 2021

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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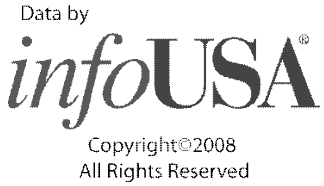

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2017	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2004	Cole Information Services	X	X	X	-
2002	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-
1999	Cole Information Services	X	X	X	-
1996	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-
1994	Cole Information Services	X	X	X	-
1990	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1986	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-
1980	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-
1975	R.L. Polk & Co Publishers	-	X	X	-
	R.L. Polk & Co Publishers	X	X	X	-
1970	R.L. Polk & Co Publisher	-	-	-	-
1965	R.L. Polk & Co Publisher	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1958	R.L. Polk & Co Publishers	-	-	-	-
1952	R.L. Polk & Co Publishers	-	-	-	-
1947	R.L. Polk & Co Publishers	-	-	-	-
1942	R.L. Polk & Co Publishers	-	-	-	-
1937	R.L. Polk & Co Publishers	-	-	-	-
1932	R.L. Polk & Co Publishers	-	-	-	-
1927	R.L. Polk & Co Publishers	-	-	-	-
1922	Polk: Husted Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
3396 N. Fowler Avenue	Client Entered	X
3590 N. Fowler Avenue	Client Entered	
6250 E. Dakota Avenue	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

3518 N. Fowler Avenue
Fresno, CA 93727

FINDINGS DETAIL

Target Property research detail.

N FOWLER AVE

3518 N FOWLER AVE

Year	*Uses*	*Source*
2017	LUCY PALOUTZIAN	Cole Information Services
2014	JOYCE PALOUTZIAN	Cole Information Services
2009	HAROLD PALOUTZIAN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Paloutzian Ann & James 81+ a	R.L. Polk & Co Publishers
1999	HAROLD PALOUTZIAN	Cole Information Services
1996	Paloutzian Harold	R.L. Polk & Co Publishers
1994	PALOUTZIAN, HAROLD	Cole Information Services
1990	Palutzian Harold	R.L. Polk & Co Publishers
1986	Paloutzian Joyce S Mrs	R.L. Polk & Co Publishers
1980	Paloutzian Harold	R.L. Polk & Co Publishers
1975	Paloutzian Harold	R.L. Polk & Co Publishers

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

E DAKOTA AVE

5942 E DAKOTA AVE

Year	Uses	Source
2017	KENNETH RUSSELL	Cole Information Services
2014	ANGIE LUNA	Cole Information Services
2009	LINDA STERNFELS	Cole Information Services
2004	CHRISTOPHER HOWE	Cole Information Services
2002	Jones Maristela	R.L. Polk & Co Publishers
	Jones Christopher S	R.L. Polk & Co Publishers
1999	LINDA STERNFELS	Cole Information Services
1990	No Return	R.L. Polk & Co Publishers
1986	Wilkinson Jerold L	R.L. Polk & Co Publishers
1980	Wilkinson Jerold L	R.L. Polk & Co Publishers
1975	Davis Floyd	R.L. Polk & Co Publishers

5946 E DAKOTA AVE

Year	Uses	Source
2017	DOUGLAS PELLEY	Cole Information Services
2014	VERA TUDOR	Cole Information Services
2009	DOUGLAS PELLEY	Cole Information Services
2004	ANTHONY SCOTT	Cole Information Services
2002	Scott Anthony L & Natalie 83 A	R.L. Polk & Co Publishers
1999	DOUGLAS PELLEY	Cole Information Services
1990	No Return	R.L. Polk & Co Publishers
1986	Pierce Dan	R.L. Polk & Co Publishers
1980	Mendoza Conrad	R.L. Polk & Co Publishers
1975	Vacant	R.L. Polk & Co Publishers

5953 E DAKOTA AVE

Year	Uses	Source
2017	RONALD BILLER	Cole Information Services
2014	RONALD BILLER	Cole Information Services
2009	RONALD BILLER	Cole Information Services
2004	RONALD BILLER	Cole Information Services

FINDINGS

Year	Uses	Source
2002	Biller Ronald N 8 E+ A	R.L. Polk & Co Publishers
1999	RONALD BILLER	Cole Information Services
1996	Blter Ronald N	R.L. Polk & Co Publishers
1994	BILLER, RONALD N	Cole Information Services
1990	Biller Ronald N	R.L. Polk & Co Publishers
1980	Biller Ronald N	R.L. Polk & Co Publishers

5956 E DAKOTA AVE

Year	Uses	Source
2017	JEREMY CHA	Cole Information Services
2014	JEREMY CHA	Cole Information Services
2009	LU CHA	Cole Information Services
2004	CHAO CHA	Cole Information Services
	LU CHA	Cole Information Services
2002	Cha Lu 83 A	R.L. Polk & Co Publishers
1999	LU CHA	Cole Information Services
1994	RODRIGUEZ, JOSEPH	Cole Information Services
1990	Rodriguez Joseph A	R.L. Polk & Co Publishers
1986	Rodriguez Joe A	R.L. Polk & Co Publishers
1980	Jungling R E	R.L. Polk & Co Publishers

5957 E DAKOTA AVE

Year	Uses	Source
2017	FELIPE CAMPOS	Cole Information Services
2009	FELIPE CAMPOS	Cole Information Services
2004	FELIPE CAMPOS	Cole Information Services
2002	Campos Felipe C 83+ A	R.L. Polk & Co Publishers
	Campos Mariadejesu D	R.L. Polk & Co Publishers
1990	Martin Steve	R.L. Polk & Co Publishers
1986	Day Ronald	R.L. Polk & Co Publishers
1980	No Return	R.L. Polk & Co Publishers
1975	Jansaen Wm	R.L. Polk & Co Publishers

5958 E DAKOTA AVE

Year	Uses	Source
2017	DALISAY RICHTER	Cole Information Services
2014	ERLINDA RICHTER	Cole Information Services
2004	ERLINDA RICHTER	Cole Information Services
2002	Richter Erlinda S 8 L A	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1990	Silva Geo B	R.L. Polk & Co Publishers
1986	Silva Gao B	R.L. Polk & Co Publishers
1980	Silva Geo B	R.L. Polk & Co Publishers
1975	Vacant	R.L. Polk & Co Publishers

5961 E DAKOTA AVE

Year	Uses	Source
2017	JEANNETTE GONZALES	Cole Information Services
2014	JEANNETTE GONZALES	Cole Information Services
2009	JEANNETTE GONZALES	Cole Information Services
2004	JEANNETTE GONZALES	Cole Information Services
2002	Gonzales Jeannette F S 3 A	R.L. Polk & Co Publishers
1999	JEANNETTE GONZALES	Cole Information Services
1990	Brown Leonard	R.L. Polk & Co Publishers
1986	Brown Leonard	R.L. Polk & Co Publishers
1980	Brown Leonard	R.L. Polk & Co Publishers
1975	Brown Leonard	R.L. Polk & Co Publishers

5962 E DAKOTA AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JERONIMO HERNANDEZ	Cole Information Services
2002	Cotton Eric J Sr & April oh A	R.L. Polk & Co Publishers
1996	Carr Michael	R.L. Polk & Co Publishers
	Carr Dorian 791$ C	R.L. Polk & Co Publishers
1994	CARR, MICHAEL	Cole Information Services
1990	No Return	R.L. Polk & Co Publishers
1986	Lake Darrell	R.L. Polk & Co Publishers
1980	E DAKOTA AV Contd	R.L. Polk & Co Publishers
	Lake Darrell	R.L. Polk & Co Publishers
1975	Vacant	R.L. Polk & Co Publishers

5963 E DAKOTA AVE

Year	Uses	Source
1975	Biller Ronald N	R.L. Polk & Co Publishers

5964 E DAKOTA AVE

Year	Uses	Source
2017	CURTIS WALKER	Cole Information Services

FINDINGS

Year	Uses	Source
2014	CURTIS WALKER	Cole Information Services
2009	CURTIS WALKER	Cole Information Services
2004	CURTIS WALKER	Cole Information Services
2002	Ward Dave A 83+ A	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
	CURTIS WALKER	Cole Information Services
1996	Lancaster K	R.L. Polk & Co Publishers
1994	LANCASTER, K	Cole Information Services
1990	Brind David	R.L. Polk & Co Publishers
1986	Ward Dave	R.L. Polk & Co Publishers
1980	Arant Donald M	R.L. Polk & Co Publishers
1975	Arant Donald M	R.L. Polk & Co Publishers

5965 E DAKOTA AVE

Year	Uses	Source
1990	Boodeker Geo R	R.L. Polk & Co Publishers

5966 E DAKOTA AVE

Year	Uses	Source
2014	SOMKITH TAEMTA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	STEVEN MACIEL	Cole Information Services
2002	f DPinkney Everett	R.L. Polk & Co Publishers
	Owens Edward R Sr 83+ A	R.L. Polk & Co Publishers
	Laycook Julie M 83+ A	R.L. Polk & Co Publishers
1986	Boodeker Geo R	R.L. Polk & Co Publishers
1980	Steele Richd	R.L. Polk & Co Publishers
1975	Broadway I C	R.L. Polk & Co Publishers

5967 E DAKOTA AVE

Year	Uses	Source
2014	MANUEL MAREZ	Cole Information Services
2009	LOUIE BEARD	Cole Information Services
2004	LOUIE BEARD	Cole Information Services
2002	Beard Louie P Jr & Pamela G 3 A	R.L. Polk & Co Publishers
1999	LOUIE BEARD	Cole Information Services
1990	Mc Laughlin Dennis	R.L. Polk & Co Publishers
1986	Mc Laughlin Dennis	R.L. Polk & Co Publishers
1980	No Return	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1975	Me Laughlin Dennis H	R.L. Polk & Co Publishers

5968 E DAKOTA AVE

Year	Uses	Source
2017	KHALID MAHMOUD	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	DAVID LOWE	Cole Information Services
2004	DAVID LOWE	Cole Information Services
2002	Lowe David Sr 2 A	R.L. Polk & Co Publishers
	Lowe Evette S	R.L. Polk & Co Publishers
1999	DAVID LOWE	Cole Information Services
1996	Cline Harry C	R.L. Polk & Co Publishers
1994	CLINE, HARRY C	Cole Information Services
1990	Cline Harry	R.L. Polk & Co Publishers
1986	Cline Harry C	R.L. Polk & Co Publishers
1980	Cline Harry C	R.L. Polk & Co Publishers
1975	Oeser Edwin	R.L. Polk & Co Publishers

5970 E DAKOTA AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	MONROE CELESTIN	Cole Information Services
2004	ANDREW MATA	Cole Information Services
2002	Spencer Scott G & Pratima S 3+ A	R.L. Polk & Co Publishers
1999	MONROE CELESTIN	Cole Information Services
1986	Juarez Margarita	R.L. Polk & Co Publishers
1980	Bear Gerry W	R.L. Polk & Co Publishers
1975	Ballou C	R.L. Polk & Co Publishers

5971 E DAKOTA AVE

Year	Uses	Source
2014	DAYA SINGH	Cole Information Services
2009	KAMAL SINGH	Cole Information Services
2004	NARENDAR BAHIA	Cole Information Services
2002	Bahia Narendar K	R.L. Polk & Co Publishers
1999	KAMAL SINGH	Cole Information Services
1990	Singh Ram	R.L. Polk & Co Publishers
1986	Siogh Ram	R.L. Polk & Co Publishers
1980	Singh Ram	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1975	Elderkin W L	R.L. Polk & Co Publishers

5972 E DAKOTA AVE

Year	Uses	Source
2017	ROGER TORRES	Cole Information Services
2014	ROGER TORRES	Cole Information Services
2009	ROGER TORRES	Cole Information Services
2004	ROGER TORRES	Cole Information Services
2002	Torres Roger 83 A	R.L. Polk & Co Publishers
1999	ROGER TORRES	Cole Information Services
1990	Predika Rae A	R.L. Polk & Co Publishers
1986	Predika Rae A	R.L. Polk & Co Publishers
1980	Vacant	R.L. Polk & Co Publishers

5975 E DAKOTA AVE

Year	Uses	Source
2017	FIDEL ELIZARRARAZ	Cole Information Services
2014	FIDEL ELIZARRARAZ	Cole Information Services
2009	FIDEL LOPEZ	Cole Information Services
2004	GREGG MCGREGOR	Cole Information Services
2002	Mc Gregor Gregg W ! EA	R.L. Polk & Co Publishers
	Mc Gregor Billie D	R.L. Polk & Co Publishers
	Boftz Richard	R.L. Polk & Co Publishers
1999	FIDEL LOPEZ	Cole Information Services
1994	SORONDO, MICHAEL V	Cole Information Services
1990	No Return	R.L. Polk & Co Publishers
1986	Giddens B L	R.L. Polk & Co Publishers
1980	Boltz Richd	R.L. Polk & Co Publishers
1975	Bottz	R.L. Polk & Co Publishers

5981 E DAKOTA AVE

Year	Uses	Source
2017	EDDIE PECINA	Cole Information Services
2014	EDDIE PECINA	Cole Information Services
2009	JOHN RODMAN	Cole Information Services
2004	TOUSHER THAO	Cole Information Services
2002	Thao Leng 81+ A	R.L. Polk & Co Publishers
1990	Hobbs Ridred	R.L. Polk & Co Publishers
1986	Schaffer Steve T	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1980	Nishomoto Henry	R.L. Polk & Co Publishers
1975	Nishomoto Henery	R.L. Polk & Co Publishers

6250 E DAKOTA AVE

Year	Uses	Source
2017	EDDIE MORALES	Cole Information Services
2014	GRETA KATEN	Cole Information Services
2009	ERIC KATEN	Cole Information Services
2004	ERIC KATEN	Cole Information Services
1999	ERIC KATEN	Cole Information Services
1994	KATEN, RICHARD	Cole Information Services

E LANSING WAY

5962 E LANSING WAY

Year	Uses	Source
2017	ERICA LOZANO	Cole Information Services
2014	DAILYNN PILLOUD	Cole Information Services
2009	DALE WARD	Cole Information Services
2004	DALE WARD	Cole Information Services
2002	Ward Dale W & Carolyn 21+ A	R.L. Polk & Co Publishers
	Tannen Miko	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
	DALE WARD	Cole Information Services
1996	Ward Dale	R.L. Polk & Co Publishers
1990	Vacant	R.L. Polk & Co Publishers
1986	Tobler Donald D	R.L. Polk & Co Publishers
1980	Tannen Mike	R.L. Polk & Co Publishers

5966 E LANSING WAY

Year	Uses	Source
2017	DONALD THAO	Cole Information Services
2014	DONALD THAO	Cole Information Services
2002	6stltund Debbie	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
1990	Weatherby Terrence	R.L. Polk & Co Publishers
1986	Weatherby Terrance E	R.L. Polk & Co Publishers
1980	No Return	R.L. Polk & Co Publishers

FINDINGS

5970 E LANSING WAY

Year	Uses	Source
2017	ERIC WOODS	Cole Information Services
2014	DIANA GUZMAN	Cole Information Services
2009	LESLIE SCHNEIDER	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Nikitin Beth	R.L. Polk & Co Publishers
1999	LESLIE SCHNEIDER	Cole Information Services
1990	Sexton Dan	R.L. Polk & Co Publishers
1986	Leigh James T	R.L. Polk & Co Publishers
1980	Jurado Mario J	R.L. Polk & Co Publishers

5976 E LANSING WAY

Year	Uses	Source
2017	JENNIFER BERTSCH	Cole Information Services
2014	JENNIFER BERTSCH	Cole Information Services
2009	JAMES GALLARDO	Cole Information Services
2004	JEFFREY NAY	Cole Information Services
2002	Nay Jennifer K	R.L. Polk & Co Publishers
	Nay Jeffery D 21 A	R.L. Polk & Co Publishers
1990	Whitney Sharon Mrs	R.L. Polk & Co Publishers
1986	Whitney Sharon Mrs	R.L. Polk & Co Publishers
1980	Whitney Scott M	R.L. Polk & Co Publishers

5982 E LANSING WAY

Year	Uses	Source
2017	GARY DELSIMONE	Cole Information Services
2014	GARY DELSIMONE	Cole Information Services
2009	GARY DELSIMONE	Cole Information Services
2004	GARY DELSIMONE	Cole Information Services
2002	Delalmone Gary B & Victoria 21+ A	R.L. Polk & Co Publishers
	Kaufman Robert R	R.L. Polk & Co Publishers
1999	GARY DELSIMONE	Cole Information Services
1990	Delsmone Gary	R.L. Polk & Co Publishers
1986	Dalsmone Gary	R.L. Polk & Co Publishers
1980	Kausham Robt R	R.L. Polk & Co Publishers

FINDINGS

E PONTIAC WAY

5983 E PONTIAC WAY

Year	Uses	Source
2017	JOSEPH CHAVEZ	Cole Information Services
2014	JOSEPH CHAVEZ	Cole Information Services
2009	JOSEPH CHAVEZ	Cole Information Services
2004	JOSEPH CHAVEZ	Cole Information Services
2002	Chavez Joseph A & Karel 1+ A	R.L. Polk & Co Publishers
1999	JOSEPH CHAVEZ	Cole Information Services
1986	Kelly Robt M	R.L. Polk & Co Publishers
1980	Kelly Robt M	R.L. Polk & Co Publishers

5988 E PONTIAC WAY

Year	Uses	Source
2017	DAVID BRON	Cole Information Services
2014	JACKIE MURPHY	Cole Information Services
2009	WILLIAM CATCHING	Cole Information Services
2004	WILLIAM CATCHING	Cole Information Services
2002	Catching Jason M	R.L. Polk & Co Publishers
	Catching William D + A	R.L. Polk & Co Publishers
1986	Richardson Edw L	R.L. Polk & Co Publishers
1980	E PONTIAC WAY Contd	R.L. Polk & Co Publishers
	Gentry S Lynn	R.L. Polk & Co Publishers

5989 E PONTIAC WAY

Year	Uses	Source
2017	CARLOS VARGAS	Cole Information Services
2014	TIM BANE	Cole Information Services
2009	TIM BANE	Cole Information Services
2004	TIM BANE	Cole Information Services
2002	Horner Paul G & Nancy 83+ A	R.L. Polk & Co Publishers
1990	Homner Paul	R.L. Polk & Co Publishers
1986	Homner Paul	R.L. Polk & Co Publishers
1980	Homer Paul	R.L. Polk & Co Publishers

5991 E PONTIAC WAY

Year	Uses	Source
2017	CHRIS YORK	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

Year	Uses	Source
2004	MARY FLOYD	Cole Information Services
	WES BLEVINS DRYWALL	Cole Information Services
2002	Not Verified	R.L. Polk & Co Publishers
1990	Wesoldwaki David F	R.L. Polk & Co Publishers
1986	Wesoldwski David F	R.L. Polk & Co Publishers
1980	Wesoldwski David F	R.L. Polk & Co Publishers

E. Dakota Avenue

6250 E. Dakota Avenue

Year	Uses	Source
2002	Katen Eric M	R.L. Polk & Co Publishers
	Katen Greta J 83+ A	R.L. Polk & Co Publishers
1996	Katen Richard	R.L. Polk & Co Publishers
1990	Katen Richd W	R.L. Polk & Co Publishers
1986	Katen Richd W	R.L. Polk & Co Publishers
1980	Vacant Katen Richd W	R.L. Polk & Co Publishers
1975	Exer Genie Exerciser distr retail sales	R.L. Polk & Co Publishers

N FOWLER AVE

3396 N FOWLER AVE

Year	Uses	Source
2017	JONATHAN ANDERSEN	Cole Information Services
2014	GREGORY FRENCH	Cole Information Services
2009	GREGORY FRENCH	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	GREGORY FRENCH	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

3397 N FOWLER AVE

Year	Uses	Source
2002	Not Verified	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
1990	Flores Manual L	R.L. Polk & Co Publishers
1986	Flores Manual L	R.L. Polk & Co Publishers
1980	Caren Harold	R.L. Polk & Co Publishers
1975	Flores Manuel	R.L. Polk & Co Publishers

FINDINGS

3409 N FOWLER AVE

Year	Uses	Source
2017	URIEL GUTIERREZ	Cole Information Services
2014	URIEL GUTIERREZ	Cole Information Services
2009	URIEL GUTIERREZ	Cole Information Services
2004	URIEL GUTIERREZ	Cole Information Services
2002	Gutierrez Uriel & Silvia 81 A	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
	URIEL GUTIERREZ	Cole Information Services
1996	Kawamoto Richard T	R.L. Polk & Co Publishers
1994	KAWAMOTO, RICHARD T	Cole Information Services
1990	Kawamoto Richd T i	R.L. Polk & Co Publishers
1986	Tugwell Richd	R.L. Polk & Co Publishers
1980	Tugwell Richd	R.L. Polk & Co Publishers
1975	Tugwell Richd	R.L. Polk & Co Publishers

3421 N FOWLER AVE

Year	Uses	Source
2017	BRITTNAE SANDHU	Cole Information Services
2014	BRITTNAE SANDHU	Cole Information Services
2009	MARY LOPEZ	Cole Information Services
2004	EDWARD AGUERRIA	Cole Information Services
2002	Murphy Jeanette M & Fred El A	R.L. Polk & Co Publishers
1999	MARY LOPEZ	Cole Information Services
1990	Ferreira Thos R	R.L. Polk & Co Publishers
1986	Ferreira Thos R	R.L. Polk & Co Publishers
1980	Ferreira Thos R	R.L. Polk & Co Publishers
1975	Dignan L S	R.L. Polk & Co Publishers

3433 N FOWLER AVE

Year	Uses	Source
2017	PATRICIA BENAVIDES	Cole Information Services
2014	VICTORIA BENAVIDES	Cole Information Services
2009	PETER BENAVIDES	Cole Information Services
2004	PETER BENAVIDES	Cole Information Services
2002	Benavides Elvira M	R.L. Polk & Co Publishers
	Benavides John T Jr 81+ A	R.L. Polk & Co Publishers
1999	PETER BENAVIDES	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1990	Benavides John T	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1986	Benavides John T	R.L. Polk & Co Publishers
1980	Benevides John T	R.L. Polk & Co Publishers
1975	Benavides John T	R.L. Polk & Co Publishers

3445 N FOWLER AVE

Year	Uses	Source
2017	ALEXANDER FRANCO	Cole Information Services
2014	ALEXANDER FRANCO	Cole Information Services
2009	ALEXANDER FRANCO	Cole Information Services
2004	ALEXANDER FRANCO	Cole Information Services
2002	Franco Alexander C Sr & Idalia E	R.L. Polk & Co Publishers
1999	ALEXANDER FRANCO	Cole Information Services
1990	Franco Alex	R.L. Polk & Co Publishers
1986	Franco Alex	R.L. Polk & Co Publishers
1980	Franco Alex	R.L. Polk & Co Publishers
1975	Franco D F	R.L. Polk & Co Publishers

3457 N FOWLER AVE

Year	Uses	Source
2017	STEVEN NOBLE	Cole Information Services
2014	STEVEN NOBLE	Cole Information Services
2009	STEVEN NOBLE	Cole Information Services
2004	STEVEN NOBLE	Cole Information Services
2002	Noble Steven C 81 A	R.L. Polk & Co Publishers
1999	STEVEN NOBLE	Cole Information Services
1990	Marmolejo Richd	R.L. Polk & Co Publishers
1986	Sorrells W Mike	R.L. Polk & Co Publishers
1980	Davis Jim	R.L. Polk & Co Publishers
1975	Vacant	R.L. Polk & Co Publishers

3469 N FOWLER AVE

Year	Uses	Source
2017	ARTIST MORGAN	Cole Information Services
2014	ARTIST MORGAN	Cole Information Services
2009	ROBERT MORGAN	Cole Information Services
2004	ARTIST MORGAN	Cole Information Services
2002	Morgan Artist G Jr & Bonnie 81+ A	R.L. Polk & Co Publishers
1990	Morgan Art	R.L. Polk & Co Publishers
1986	Morgan Art	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1980	Nelson Roy	R.L. Polk & Co Publishers
1975	Vacant	R.L. Polk & Co Publishers

N RENN AVE

3806 N RENN AVE

Year	Uses	Source
2017	DUTCHESS ANDERSON	Cole Information Services
2014	ELIZABETH GARCIA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DOUA VANG	Cole Information Services
2002	Vang Doua 81 A	R.L. Polk & Co Publishers
1986	Berrnudez Felix M	R.L. Polk & Co Publishers
1980	Sanders Virgil	R.L. Polk & Co Publishers

3810 N RENN AVE

Year	Uses	Source
2009	OFELIA MIRELES	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Liscano Frank M Jr & Maria 11+ A	R.L. Polk & Co Publishers
1999	OFELIA MIRELES	Cole Information Services
1986	Lucas Andrew E Jr	R.L. Polk & Co Publishers
1980	Sloan Randy	R.L. Polk & Co Publishers

3816 N RENN AVE

Year	Uses	Source
2017	KAREN BALSKE	Cole Information Services
2014	KAREN BALSKE	Cole Information Services
2009	RONALD BALSNE	Cole Information Services
2004	RONALD BALSKE	Cole Information Services
2002	Balske Ronald E 81+ A	R.L. Polk & Co Publishers
	Balske Karen L	R.L. Polk & Co Publishers
1986	Balske Ronald E	R.L. Polk & Co Publishers
1980	Balske R	R.L. Polk & Co Publishers

3820 N RENN AVE

Year	Uses	Source
2009	FRANK LISCANO	Cole Information Services
2004	FRANK LISCANO	Cole Information Services
1999	FRANK LISCANO	Cole Information Services

FINDINGS

3843 N RENN AVE

Year	Uses	Source
2017	THOMAS WALL	Cole Information Services
2014	THOMAS WALL	Cole Information Services
2009	THOMAS WALL	Cole Information Services
2004	THOMAS WALL	Cole Information Services
2002	Wall Thomas F & Cynthia Rl A	R.L. Polk & Co Publishers
1999	THOMAS WALL	Cole Information Services
1996	APPLIANCE & AIR COND	R.L. Polk & Co Publishers
1986	No Return	R.L. Polk & Co Publishers
1980	Bedrosian Brian	R.L. Polk & Co Publishers

3844 N RENN AVE

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	ALAN SUNAHARA	Cole Information Services
2002	Sunahara Alan K Sr 81+ A	R.L. Polk & Co Publishers
1996	Sunahara Alan K	R.L. Polk & Co Publishers
1994	SUNAHARA, ALAN K	Cole Information Services
1986	Sunahara Alan K	R.L. Polk & Co Publishers
1980	Sunahara Alan K	R.L. Polk & Co Publishers

3851 N RENN AVE

Year	Uses	Source
2017	MORGAN SMITH	Cole Information Services
2014	MORGAN SMITH	Cole Information Services
2009	MORGAN SMITH	Cole Information Services
2002	Lewis Kenneth R & Carol	R.L. Polk & Co Publishers
1999	MORGAN SMITH	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1986	Vacant	R.L. Polk & Co Publishers
1980	Van Hoosen Mary	R.L. Polk & Co Publishers

3852 N RENN AVE

Year	Uses	Source
2017	SERINA RAYGOZA	Cole Information Services
2014	SARAH HERNANDEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	ANTHONY GONZALES	Cole Information Services
2002	Gardner Richard E & Kelly CB A A	R.L. Polk & Co Publishers

FINDINGS

Year	Uses	Source
1986	Pepin Jeff	R.L. Polk & Co Publishers
1980	Jenkins Mel	R.L. Polk & Co Publishers

3861 N RENN AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	JOSEPH STASIKONIS	Cole Information Services
2004	JOSEPH STASIKONIS	Cole Information Services
2002	Slasikonis Joseph A 81+ A	R.L. Polk & Co Publishers
1999	JOSEPH STASIKONIS	Cole Information Services
1986	Mixon Michl J	R.L. Polk & Co Publishers
1980	Villavicencio Sandy	R.L. Polk & Co Publishers

3862 N RENN AVE

Year	Uses	Source
2014	BRYSON PAGH	Cole Information Services
2009	JAIME BARRERA	Cole Information Services
2004	ROBERT REGEHR	Cole Information Services
2002	Regehr Robert L	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Verdugo R A	R.L. Polk & Co Publishers
1980	Wapiennik Rod N	R.L. Polk & Co Publishers

3869 N RENN AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOHN GIMBARTI	Cole Information Services
2002	Gimbarti John T & Patti 81+ A	R.L. Polk & Co Publishers
1996	Gimbarti John T	R.L. Polk & Co Publishers
1994	GIMBARTI, JOHN T	Cole Information Services
1986	Gimbarti John T	R.L. Polk & Co Publishers
1980	Gimbarti John T	R.L. Polk & Co Publishers

3870 N RENN AVE

Year	Uses	Source
2017	JOSE PALAFOX	Cole Information Services
2014	JOSE PALAFOX	Cole Information Services
2004	JOSE PALAFOX	Cole Information Services
	MR MOW MAN	Cole Information Services

FINDINGS

Year	Uses	Source
2002	Preuss Jay M & Usa	R.L. Polk & Co Publishers
1986	Garcia Joseph	R.L. Polk & Co Publishers
1980	Garcia J	R.L. Polk & Co Publishers

3878 N RENN AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	HENRY HAWKINS	Cole Information Services
2004	TREVA JOSLEYN	Cole Information Services
2002	Josleyn Ernest E	R.L. Polk & Co Publishers
	Josleyn Treva L 1 S+ A	R.L. Polk & Co Publishers
1996	Huffman Fred	R.L. Polk & Co Publishers
1994	HUFFMAN, FRED	Cole Information Services
1986	Anderson Maurice Rev	R.L. Polk & Co Publishers
1980	King Douglas V	R.L. Polk & Co Publishers

N SHIRLEY AVE

3830 N SHIRLEY AVE

Year	Uses	Source
2017	DALE ROSADO	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2004	LINDA ROSADO	Cole Information Services
2002	Rosado Linda A	R.L. Polk & Co Publishers
1986	I Morton T	R.L. Polk & Co Publishers
1980	Reeves Charles II	R.L. Polk & Co Publishers

3838 N SHIRLEY AVE

Year	Uses	Source
2017	HOUA LEE	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	JASON TAYLOR	Cole Information Services
2004	JASON TAYLOR	Cole Information Services
2002	Taylor Jason L 121 A	R.L. Polk & Co Publishers
	Taylor Marisa S	R.L. Polk & Co Publishers
1999	JASON TAYLOR	Cole Information Services
1986	Driggers Paula Mrs	R.L. Polk & Co Publishers
1980	Driggers Chester	R.L. Polk & Co Publishers

FINDINGS

3845 N SHIRLEY AVE

Year	Uses	Source
2014	HAROLD CRAIN	Cole Information Services
2009	HAROLD CRAIN	Cole Information Services
2004	HAROLD CRAIN	Cole Information Services
2002	Crain Harold W Jr & Cheryl 11+ A	R.L. Polk & Co Publishers
1999	HAROLD CRAIN	Cole Information Services
1996	Crain Harold W	R.L. Polk & Co Publishers
1994	CRAIN, HAROLD W JR	Cole Information Services
1986	Crain Harold W Jr	R.L. Polk & Co Publishers
1980	Crain Harold W Jr	R.L. Polk & Co Publishers

3846 N SHIRLEY AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Guzman Rosemary	R.L. Polk & Co Publishers
	Duggins Kelli J	R.L. Polk & Co Publishers
1994	MORALES, FELIX	Cole Information Services
1986	Morales Felix	R.L. Polk & Co Publishers
1980	Morales Felix	R.L. Polk & Co Publishers

3853 N SHIRLEY AVE

Year	Uses	Source
2014	DANIEL GARNER	Cole Information Services
2009	BEVERLY BLOUNT	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Fagundes Deborah S	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
	BEVERLY BLOUNT	Cole Information Services
1986	I Seib Gerald H	R.L. Polk & Co Publishers
1980	Sherwood Eben	R.L. Polk & Co Publishers

3854 N SHIRLEY AVE

Year	Uses	Source
2017	STEVE NIMMO	Cole Information Services
2014	STEVE NIMMO	Cole Information Services
2009	STEVE NIMMO	Cole Information Services
2004	STEVE NIMMO	Cole Information Services

FINDINGS

Year	Uses	Source
2002	Nimmo Steve A & Gloria El A	R.L. Polk & Co Publishers
	Weaver Janice C	R.L. Polk & Co Publishers
1999	STEVE NIMMO	Cole Information Services
1986	Vacant	R.L. Polk & Co Publishers
1980	Levy Sanford	R.L. Polk & Co Publishers

3863 N SHIRLEY AVE

Year	Uses	Source
2014	PATRICK SCHMAL	Cole Information Services
2009	PATRICK SCHMAL	Cole Information Services
	ALL REPAIRS GREAT & SCHMAL	Cole Information Services
2004	PATRICK SCHMAL	Cole Information Services
	ALL REPAIRS GREAT & SCHMAL	Cole Information Services
2002	Schmal Rebecca M	R.L. Polk & Co Publishers
	Schmal Patrick W M	R.L. Polk & Co Publishers
1999	PATRICK SCHMAL	Cole Information Services
1996	Guinn Doe	R.L. Polk & Co Publishers
1994	GUINN, DON	Cole Information Services
1986	Guinn Don R	R.L. Polk & Co Publishers
1980	Blake Robt J	R.L. Polk & Co Publishers

3864 N SHIRLEY AVE

Year	Uses	Source
2017	SANDRA MILLER	Cole Information Services
2014	SANDRA MILLER	Cole Information Services
2009	RANDALL MILLER	Cole Information Services
2004	RANDALL MILLER	Cole Information Services
2002	Miller Randall B MI+ A	R.L. Polk & Co Publishers
	Miller Kristin D	R.L. Polk & Co Publishers
1999	RANDALL MILLER	Cole Information Services
1986	Miller Randy	R.L. Polk & Co Publishers
1980	Lovell Jas W	R.L. Polk & Co Publishers

3871 N SHIRLEY AVE

Year	Uses	Source
2017	DAVID RAMIREZ	Cole Information Services
2014	DAVID RAMIREZ	Cole Information Services
2009	DAVID RAMIREZ	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

Year	Uses	Source
2002	Ramirez David X & Margaret 1+ A	R.L. Polk & Co Publishers
1999	DAVID RAMIREZ	Cole Information Services
1986	Ramirez Raul	R.L. Polk & Co Publishers
1980	Lowry Robt	R.L. Polk & Co Publishers

3872 N SHIRLEY AVE

Year	Uses	Source
2017	DEBRA CARVER	Cole Information Services
2014	DEBRA CARVER	Cole Information Services
2009	BRIAN CARVER	Cole Information Services
2002	Not Verified	R.L. Polk & Co Publishers
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	No Return	R.L. Polk & Co Publishers
1980	Kane R	R.L. Polk & Co Publishers

3879 N SHIRLEY AVE

Year	Uses	Source
2017	DEBORAH HASKIN	Cole Information Services
2014	DEBORAH HASKIN	Cole Information Services
2009	GEORGE HASKIN	Cole Information Services
2004	JOHN HASKIN	Cole Information Services
2002	Haskin John M Sr & Deborah S 1 A	R.L. Polk & Co Publishers
1996	Rowan A	R.L. Polk & Co Publishers
1986	Lange Lauretta	R.L. Polk & Co Publishers
1980	Miller C	R.L. Polk & Co Publishers

3880 N SHIRLEY AVE

Year	Uses	Source
2017	OFELIA CARDONA	Cole Information Services
2014	CHARLES BERNARD	Cole Information Services
2009	CHARLES BERNARD	Cole Information Services
2004	BEVERLY SHERILL	Cole Information Services
2002	Sherrill Michael J 31 A	R.L. Polk & Co Publishers
1999	CHARLES BERNARD	Cole Information Services
1986	Walker Mike	R.L. Polk & Co Publishers
1980	Mercer Floyd W	R.L. Polk & Co Publishers

FINDINGS

N. Fowler Avenue

3396 N. Fowler Avenue

Year	*Uses*	*Source*
2002	French Gregory A 81 A	R.L. Polk & Co Publishers
1990	Ricchiuti T	R.L. Polk & Co Publishers
1986	Ricchiuti Pat	R.L. Polk & Co Publishers
1980	Ricchuiti Pat	R.L. Polk & Co Publishers
1975	Ricchiuti Pat	R.L. Polk & Co Publishers

RENN AVE N

3843 RENN AVE N

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3844 RENN AVE N

Year	*Uses*	*Source*
1990	Sunahara Alan K	R.L. Polk & Co Publishers

3851 RENN AVE N

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3852 RENN AVE N

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3862 RENN AVE N

Year	*Uses*	*Source*
1990	Henribsen Paul	R.L. Polk & Co Publishers

SHIRLEY AVE

3830 SHIRLEY AVE

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3838 SHIRLEY AVE

Year	*Uses*	*Source*
1990	Driggers Paula Mrs	R.L. Polk & Co Publishers

FINDINGS

3845 SHIRLEY AVE

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3863 SHIRLEY AVE

Year	*Uses*	*Source*
1990	Guinn Don R	R.L. Polk & Co Publishers

3864 SHIRLEY AVE

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

3879 SHIRLEY AVE

Year	*Uses*	*Source*
1990	Rowan Arlene K	R.L. Polk & Co Publishers

3880 SHIRLEY AVE

Year	*Uses*	*Source*
1990	No Return	R.L. Polk & Co Publishers

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
3396 N FOWLER AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3396 N. Fowler Avenue	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3397 N FOWLER AVE	2017, 2014, 2009, 2004, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3397 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3409 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3409 N FOWLER AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3421 N FOWLER AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3421 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3433 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3433 N FOWLER AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3445 N FOWLER AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3445 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3457 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3457 N FOWLER AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3469 N FOWLER AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3469 N FOWLER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3590 N. Fowler Avenue	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3806 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3806 N RENN AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3810 N RENN AVE	2017, 2014, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3810 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
3816 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3816 N RENN AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3820 N RENN AVE	2017, 2014, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3830 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3830 N SHIRLEY AVE	2009, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3830 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3838 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3838 N SHIRLEY AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3838 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3843 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3843 N RENN AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3843 RENN AVE N	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3844 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3844 N RENN AVE	2017, 2014, 2002, 1999, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3844 RENN AVE N	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3845 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3845 N SHIRLEY AVE	2017, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3845 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3846 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3846 N SHIRLEY AVE	2017, 2002, 1999, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3851 N RENN AVE	2004, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3851 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3851 RENN AVE N	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3852 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
3852 N RENN AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3852 RENN AVE N	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3853 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3853 N SHIRLEY AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3854 N SHIRLEY AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3854 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3861 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3861 N RENN AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3862 N RENN AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3862 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3862 RENN AVE N	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3863 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3863 N SHIRLEY AVE	2017, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3863 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3864 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3864 N SHIRLEY AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3864 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3869 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3869 N RENN AVE	2017, 2002, 1999, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3870 N RENN AVE	2009, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3870 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3871 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3871 N SHIRLEY AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3872 N SHIRLEY AVE	2004, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
3872 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3878 N RENN AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3878 N RENN AVE	2017, 2002, 1999, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3879 N SHIRLEY AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3879 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3879 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3880 N SHIRLEY AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3880 N SHIRLEY AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
3880 SHIRLEY AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5942 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5942 E DAKOTA AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5946 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5946 E DAKOTA AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5953 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5953 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1994, 1986, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5956 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5956 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5957 E DAKOTA AVE	2014, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5957 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5958 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5958 E DAKOTA AVE	2009, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5961 E DAKOTA AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5961 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5962 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
5962 E DAKOTA AVE	2017, 2002, 1999, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5962 E LANSING WAY	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5962 E LANSING WAY	2017, 2014, 2009, 2004, 1999, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5963 E DAKOTA AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5964 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5964 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5965 E DAKOTA AVE	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5966 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5966 E DAKOTA AVE	2017, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5966 E LANSING WAY	2009, 2004, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5966 E LANSING WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5967 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5967 E DAKOTA AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5968 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5968 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5970 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5970 E DAKOTA AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5970 E LANSING WAY	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5970 E LANSING WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5971 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5971 E DAKOTA AVE	2017, 2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5972 E DAKOTA AVE	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5972 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5975 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
5975 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5976 E LANSING WAY	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5976 E LANSING WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5981 E DAKOTA AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5981 E DAKOTA AVE	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5982 E LANSING WAY	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5982 E LANSING WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5983 E PONTIAC WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5983 E PONTIAC WAY	2002, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5988 E PONTIAC WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1990, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5988 E PONTIAC WAY	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5989 E PONTIAC WAY	2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5989 E PONTIAC WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5991 E PONTIAC WAY	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
5991 E PONTIAC WAY	2009, 2002, 1999, 1996, 1994, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
6250 E DAKOTA AVE	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
6250 E. Dakota Avenue	2017, 2014, 2009, 2004, 1999, 1994, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
3518 N. Fowler Avenue	1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

Appendix E

Paloutzian Property
3518 N. Fowler Avenue
Fresno, CA 93727

Inquiry Number: 6512846.3
May 27, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/27/21

Site Name:

Paloutzian Property
3518 N. Fowler Avenue
Fresno, CA 93727
EDR Inquiry # 6512846.3

Client Name:

Krazan & Associates, Inc.
4320 Orange Grove Avenue Suite E
Sacramento, CA 95841
Contact: William Vick

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Krazan & Associates, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 50ED-4C48-A257

PO # NA

Project 014-21099

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 50ED-4C48-A257

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix F

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

PHASE I ENVIRONMENTAL SITE ASSESSMENT
PROPERTY OWNER INTERVIEW QUESTIONNAIRE

Date: May 27, 2021 Krazan Project Manager: Bill Vick

Project No: 014-21099 Project Name: Paloutzian Property

Site Address: 3518 N. Fowler Avenue, Fresno, California 93727; APN 310-201-03

Interview With: LUCY PALOUTZIAN RV

Telephone No: _____ Fax No: _____

Knowledge of Previous Owner(s) and Phone Number? NO

How are you associated with the subject property? (Property Owner) / Property Owner's Representative

How long have you been associated with the subject property? 66 yrs

What is the subject property currently used for? bacon

Are there structures on the subject property? NO How Many? —

Do you know of any previous structures on the subject property? NO

Do you have knowledge of the presence of underground storage tanks being located on the subject property either historically or currently? NO

Do you have knowledge of the presence of aboveground storage tanks being located on the subject property either historically or currently? NO

Do you have knowledge of the presence of imported soil on the subject property? If so, please indicate the origin/location of the imported soil. NO

Do you know of any chemicals, hazardous materials, and/or environmentally persistent pesticides/herbicides being used, stored or discharged on the subject property? NO

Do you know of any buried materials such as garbage dumps or burn pits located on the subject property? NO

Do you know of any septic systems located on the subject property (current or historical)? Yes (No)
If yes, how many currently? _____ If yes, how many historically? _____

Do you know of any water wells located on the subject property (current or historical)? Yes (No) ?
If yes, how many currently? _____ If yes, how many historically? _____

Do you know of any dry wells located on the subject property (current or historical)? (Yes) No

Do you know of any environmental monitoring wells located on the subject property (current or historical)? **Yes** **No**

Do you know of any drainage or disposal ponds located on the subject property? NO

Is the subject property connected to municipal water and sewer systems? NO

Do you know of obvious indications pointing to the presence or likely presence of contamination of the subject property?
NO

Do you have any concerns about adjacent property usage such as gasoline stations, industrial uses, or USTs/ASTs on adjacent properties? NO

Are you aware of any environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law? NO

Please list previous commercial and/or industrial (non-residential) tenants/occupants of the on-site building:
NONE

Are you aware of any activity use limitations (AULs) such as engineering controls, land use restrictions, or institutional controls that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law?
NO

Do you have any specialized knowledge or experience related to the subject property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject property or an adjacent property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
NO

Does the purchase price being paid for the subject property reasonably reflect the fair market value of the subject property?
Yes **No**

Do you know the past uses of the subject property? If so, briefly explain.
NO

Do you have knowledge of the current or historical presence of vehicle repair-related features (i.e., sumps, oil/water clarifiers, subsurface hydraulic vehicle hoists, etc.)?
If so, briefly explain.
NO

Do you know of specific chemicals that are present or once were present at the subject property?
If so, briefly explain.
NO

Do you know of spills or other chemical releases that have taken place at the subject property?

If so, briefly explain.

NO

Do you know of spills or other chemical releases that have taken place at the subject property?

NO

Are you aware of, or have you been notified of, any contamination issues to soil or groundwater either at the subject site or in the vicinity of the subject site?

If so, briefly explain.

NO

What is the reason for preparation of this Phase I ESA? (Property purchase/sale; bank loan; proposed development; etc.)

Name: Lucy Paloutzian (Please Print) Date: 6/9/2021

Signature: Lucy Paloutzian

Appendix G

Paloutzian Property
3518 N. Fowler Avenue
Fresno, CA 93727

Inquiry Number: 6512846.2s
May 27, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	85
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3518 N. FOWLER AVENUE
FRESNO, CA 93727

COORDINATES

Latitude (North):	36.7876160 - 36° 47' 15.41''
Longitude (West):	119.6798170 - 119° 40' 47.34''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	260868.2
UTM Y (Meters):	4074460.0
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5603160 CLOVIS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140618
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
3518 N. FOWLER AVENUE
FRESNO, CA 93727

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	BONNIE MORGAN	3469 N. FOWLER AVE	RCRA NonGen / NLR	Lower	200, 0.038, WSW
2	DANIEL COLLINS	1748 GRIFFITH AVE	RCRA NonGen / NLR	Higher	599, 0.113, WNW
3	JOHN FEASEL	3317 N FOWLER AVE	RCRA NonGen / NLR	Lower	939, 0.178, SSW
A4	MARY GROVE	6416 EAST DAKOTA AVE	RCRA NonGen / NLR	Higher	1047, 0.198, East
5	MARTIN ORIGEL	5979 EAST FEDORA AVE	RCRA NonGen / NLR	Lower	1238, 0.234, SW
6	VANGSOUA SAYAOVANG	5906 E DAKOTA AVE	RCRA NonGen / NLR	Lower	1267, 0.240, West
A7	DAKOTA/ARMSTRONG SIT	DAKOTA/ARMSTRONG AVE	ENVIROSTOR, SCH	Higher	1318, 0.250, East
8	DUNCAN ENTERPRISES	5715 EAST FOUNTAIN W	ENVIROSTOR, VCP, CUPA Listings	Lower	4308, 0.816, WSW
9	DUNCAN ENTERPRISES	5673 EAST SHIELDS AV	SEMS-ARCHIVE, RCRA-LQG, ENVIROSTOR, CPS-SLIC, CERS	Lower	4959, 0.939, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ..... Underground Storage Tank Listing
UST ..... Active UST Facilities
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
CERS HAZ WASTE ---- CERS HAZ WASTE
US CDL ---- National Clandestine Laboratory Register
PFAS ---- PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CA FID UST ---- Facility Inventory Database
CERS TANKS ---- California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees

INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
MINES MRDS	Mineral Resources Data System
HWTS	Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations

EXECUTIVE SUMMARY

EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DAKOTA/ARMSTRONG SIT	***DAKOTA/ARMSTRONG AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***A7***	***24***
Facility Id: 10070076				
Status: No Further Action				

Lower Elevation	Address	Direction / Distance	Map ID	Page
DUNCAN ENTERPRISES	***5715 EAST FOUNTAIN W***	***WSW 1/2 - 1 (0.816 mi.)***	***8***	***27***
Facility Id: 10320045				
Status: Certified / Operation & Maintenance				
DUNCAN ENTERPRISES	***5673 EAST SHIELDS AV***	***WSW 1/2 - 1 (0.939 mi.)***	***9***	***36***

Facility Id: 71002247
Status: Inactive - Needs Evaluation

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 01/25/2021 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DAKOTA/ARMSTRONG SIT	***DAKOTA/ARMSTRONG AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***A7***	***24***
Facility Id: 10070076				
Status: No Further Action				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there are 6 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DANIEL COLLINS	1748 GRIFFITH AVE	WNW 0 - 1/8 (0.113 mi.)	2	11
EPA ID:: CAC002968522				
MARY GROVE	6416 EAST DAKOTA AVE	E 1/8 - 1/4 (0.198 mi.)	A4	16

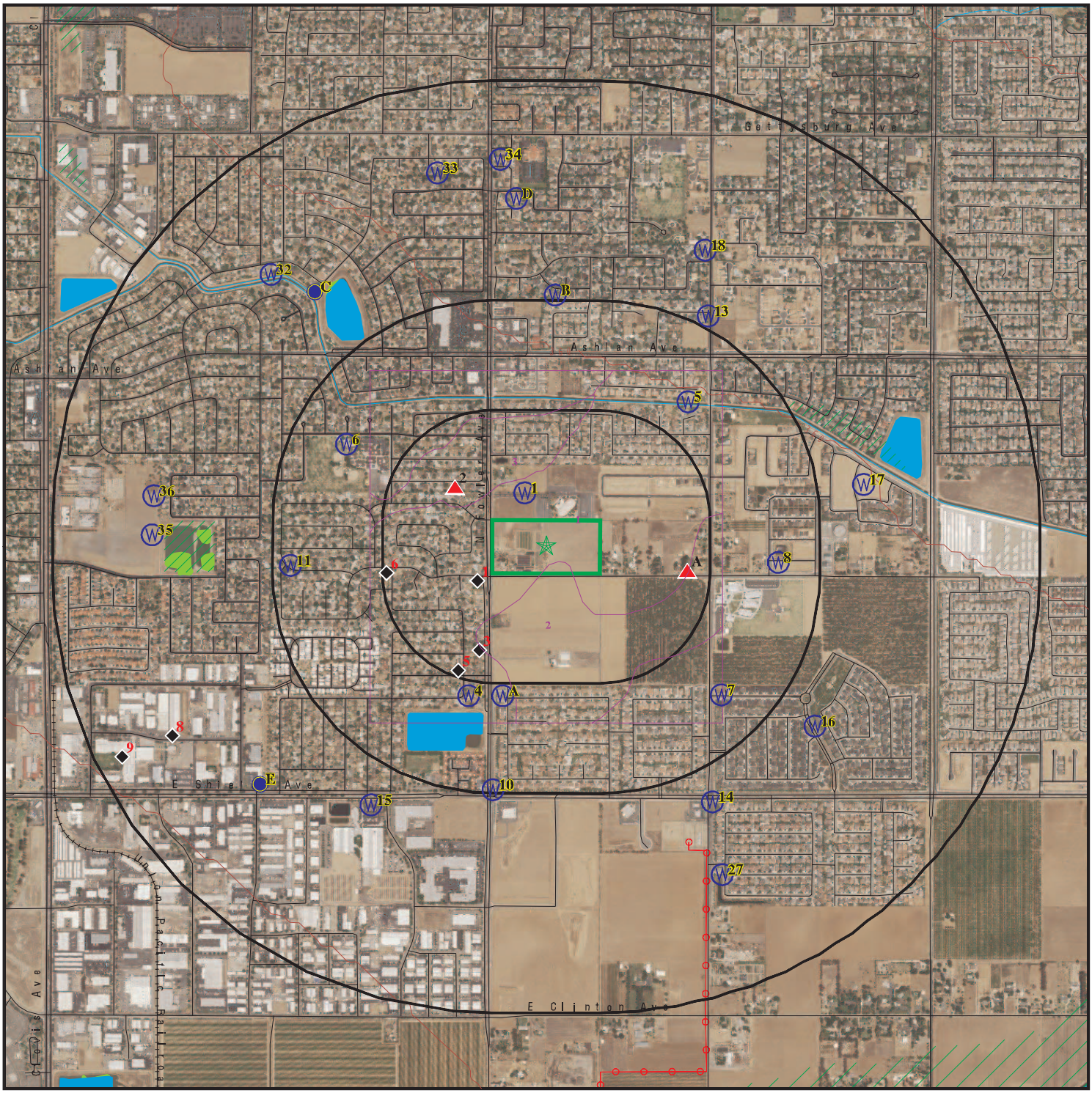
Lower Elevation	Address	Direction / Distance	Map ID	Page
BONNIE MORGAN	3469 N. FOWLER AVE	WSW 0 - 1/8 (0.038 mi.)	1	9
JOHN FEASEL	3317 N FOWLER AVE	SSW 1/8 - 1/4 (0.178 mi.)	3	14
EPA ID:: CAC002975611				
MARTIN ORIGEL	5979 EAST FEDORA AVE	SW 1/8 - 1/4 (0.234 mi.)	5	19
VANGSOUA SAYAOVANG	5906 E DAKOTA AVE	W 1/8 - 1/4 (0.240 mi.)	6	21
EPA ID:: CAC003036877				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
FOWLER-MCKINLEY ELEMENTARY SCHOOL	ENVIROSTOR, SCH
PROPOSED TEMPERANCE ELEMENTARY SCH	ENVIROSTOR, SCH

OVERVIEW MAP - 6512846.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Paloutzian Property	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	3518 N. Fowler Avenue Fresno CA 93727	CONTACT:	William Vick
LAT/LONG:	36.787616 / 119.679817	INQUIRY #:	6512846.2s
		DATE:	May 27, 2021 2:50 pm

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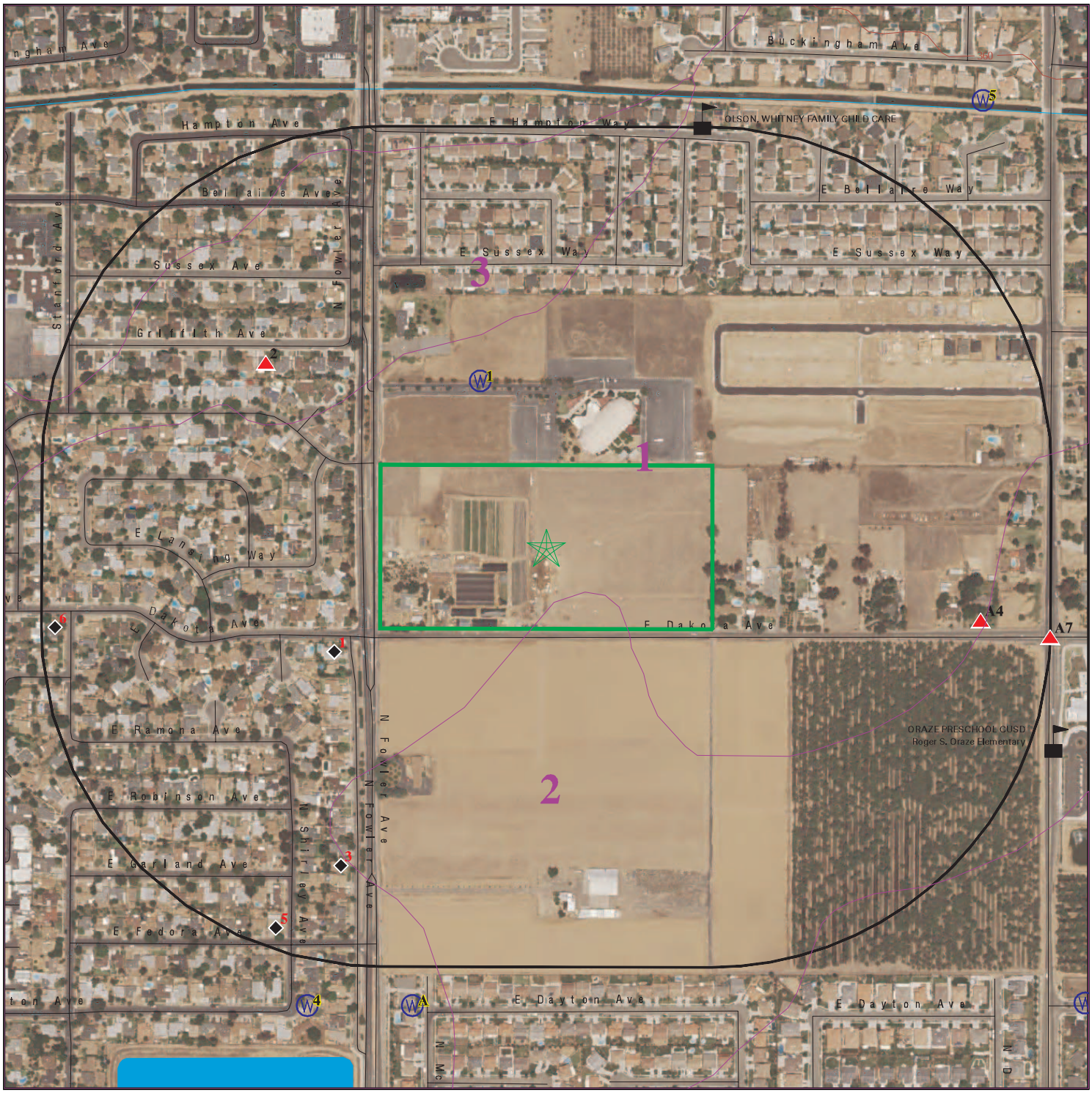
DETAIL MAP - 6512846.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Paloutzian Property	CLIENT: Krazan & Associates, Inc.
ADDRESS: 3518 N. Fowler Avenue Fresno CA 93727	CONTACT: William Vick
LAT/LONG: 36.787616 / 119.679817	INQUIRY #: 6512846.2s DATE: May 27, 2021 2:53 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	0	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	4	NR	NR	NR	6
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	2	6	0	2	0	10

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
WSW
< 1/8
0.038 mi.
200 ft.

BONNIE MORGAN
3469 N. FOWLER AVE
FRESNO, CA 93727

RCRA NonGen / NLR

1026715201
CAC003103604

Relative:
Lower

Actual:
351 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2021-02-02 00:00:00.0
Handler Name:	BONNIE MORGAN	
Handler Address:		3469 N. FOWLER AVE
Handler City,State,Zip:		FRESNO, CA 93727
EPA ID:		CAC003103604
Contact Name:		BONNIE MORGAN
Contact Address:		3469 N. FOWLER AVE
Contact City,State,Zip:		FRESNO, CA 93727
Contact Telephone:		559-977-1303
Contact Fax:		Not reported
Contact Email:		VALERIEO@CVECORP.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		3469 N. FOWLER AVE
Mailing City,State,Zip:		FRESNO, CA 93727
Owner Name:		BONNIE MORGAN
Owner Type:		Other
Operator Name:		BONNIE MORGAN
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

BONNIE MORGAN (Continued) **1026715201**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2021-02-26 18:45:14.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	BONNIE MORGAN
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3469 N. FOWLER AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-977-1303
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	BONNIE MORGAN
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3469 N. FOWLER AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-977-1303
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BONNIE MORGAN (Continued) **1026715201**

Historic Generators:
- Receive Date: 2021-02-02 00:00:00.0
- Handler Name: BONNIE MORGAN
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: No
- Electronic Manifest Broker: No

List of NAICS Codes and Descriptions:
- NAICS Code: 56299
- NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

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2 **DANIEL COLLINS** **RCRA NonGen / NLR** **1024748739**
WNW **1748 GRIFFITH AVE** **CAC002968522**
< 1/8 **CLOVIS, CA 93611**
0.113 mi.
599 ft.

Relative: **Higher**

Actual: **352 ft.**

RCRA NonGen / NLR:
- Date Form Received by Agency: 2018-06-27 00:00:00.0
- Handler Name: DANIEL COLLINS
- Handler Address: 1748 GRIFFITH AVE
- Handler City,State,Zip: CLOVIS, CA 93611
- EPA ID: CAC002968522
- Contact Name: DANIEL COLLINS
- Contact Address: 1748 GRIFFITH AVE
- Contact City,State,Zip: CLOVIS, CA 93611
- Contact Telephone: 559-269-1327
- Contact Fax: Not reported
- Contact Email: LIZE@PWSEI.COM
- Contact Title: Not reported
- EPA Region: 09
- Land Type: Not reported
- Federal Waste Generator Description: Not a generator, verified
- Non-Notifier: Not reported
- Biennial Report Cycle: Not reported
- Accessibility: Not reported
- Active Site Indicator: Handler Activities
- State District Owner: Not reported
- State District: Not reported
- Mailing Address: 1748 GRIFFITH AVE
- Mailing City,State,Zip: CLOVIS, CA 93611
- Owner Name: DANIEL COLLINS

DANIEL COLLINS (Continued) **1024748739**

Owner Type:	Other
Operator Name:	DANIEL COLLINS
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-08-31 17:14:43.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

DANIEL COLLINS (Continued) **1024748739**

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: DANIEL COLLINS
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1748 GRIFFITH AVE
Owner/Operator City,State,Zip: CLOVIS, CA 93611
Owner/Operator Telephone: 559-269-1327
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DANIEL COLLINS
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1748 GRIFFITH AVE
Owner/Operator City,State,Zip: CLOVIS, CA 93611
Owner/Operator Telephone: 559-269-1327
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2018-06-27 00:00:00.0
Handler Name: DANIEL COLLINS
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

3
SSW
1/8-1/4
0.178 mi.
939 ft.

JOHN FEASEL
3317 N FOWLER AVE
FRESNO, CA 93727

RCRA NonGen / NLR

1024755786
CAC002975611

Relative:
Lower

Actual:
348 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2018-08-13 00:00:00.0
Handler Name:	JOHN FEASEL	
Handler Address:		3317 N FOWLER AVE
Handler City,State,Zip:		FRESNO, CA 93727
EPA ID:		CAC002975611
Contact Name:		JOHN FEASEL
Contact Address:		3317 N FOWLER AVE
Contact City,State,Zip:		FRESNO, CA 93727
Contact Telephone:		559-221-0560
Contact Fax:		Not reported
Contact Email:		LIZE@PWSEI.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		3317 N FOWLER AVE
Mailing City,State,Zip:		FRESNO, CA 93727
Owner Name:		JOHN FEASEL
Owner Type:		Other
Operator Name:		JOHN FEASEL
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes
Universal Waste Destination Facility:		Yes
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

JOHN FEASEL (Continued) **1024755786**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-08-31 17:15:11.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	JOHN FEASEL
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3317 N FOWLER AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-221-0560
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	JOHN FEASEL
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3317 N FOWLER AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-221-0560
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

JOHN FEASEL (Continued) **1024755786**

Historic Generators:
Receive Date: 2018-08-13 00:00:00.0
Handler Name: JOHN FEASEL
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

A4 **MARY GROVE** **RCRA NonGen / NLR** **1026711573**
East **6416 EAST DAKOTA AVENUE** **CAC003099755**
1/8-1/4 **FRESNO, CA 93727**
0.198 mi.
1047 ft. **Site 1 of 2 in cluster A**

Relative: **Higher**
Actual: **354 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 2021-01-06 00:00:00.0
Handler Name: MARY GROVE
Handler Address: 6416 EAST DAKOTA AVENUE
Handler City,State,Zip: FRESNO, CA 93727
EPA ID: CAC003099755
Contact Name: MARY GROVE
Contact Address: 6416 EAST DAKOTA AVENUE
Contact City,State,Zip: FRESNO, CA 93727
Contact Telephone: 559-294-7592
Contact Fax: Not reported
Contact Email: HECKM@ATT.NET
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Not a generator, verified
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Not reported
State District Owner: Not reported
State District: Not reported
Mailing Address: 6416 EAST DAKOTA AVENUE
Mailing City,State,Zip: FRESNO, CA 93727
Owner Name: MARY GROVE

MARY GROVE (Continued) **1026711573**

Owner Type:	Other
Operator Name:	MARY GROVE
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2021-02-26 18:44:05.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

MARY GROVE (Continued) **1026711573**

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: MARY GROVE
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 6416 EAST DAKOTA AVENUE
Owner/Operator City,State,Zip: FRESNO, CA 93727
Owner/Operator Telephone: 559-294-7592
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: MARY GROVE
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 6416 EAST DAKOTA AVENUE
Owner/Operator City,State,Zip: FRESNO, CA 93727
Owner/Operator Telephone: 559-294-7592
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2021-01-06 00:00:00.0
Handler Name: MARY GROVE
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

5
SW
1/8-1/4
0.234 mi.
1238 ft.

MARTIN ORIGEL
5979 EAST FEDORA AVENUE
FRESNO, CA 93727

RCRA NonGen / NLR **1026476788**
CAC003082605

Relative:
Lower

Actual:
347 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2020-09-04 00:00:00.0
Handler Name:	MARTIN ORIGEL	
Handler Address:		5979 EAST FEDORA AVENUE
Handler City,State,Zip:		FRESNO, CA 93727
EPA ID:		CAC003082605
Contact Name:		MARTIN ORIGEL
Contact Address:		1062 HARDING STREET
Contact City,State,Zip:		SALINAS, CA 93906
Contact Telephone:		559-301-6738
Contact Fax:		Not reported
Contact Email:		CASSIEMCGRATH@ALLIANCE-ENVIRO.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		1062 HARDING STREET
Mailing City,State,Zip:		SALINAS, CA 93906
Owner Name:		MARTIN ORIGEL
Owner Type:		Other
Operator Name:		MARTIN ORIGEL
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

MARTIN ORIGEL (Continued) **1026476788**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2020-09-20 14:39:23.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	MARTIN ORIGEL
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1062 HARDING STREET
Owner/Operator City,State,Zip:	SALINAS, CA 93906
Owner/Operator Telephone:	559-301-6738
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	MARTIN ORIGEL
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1062 HARDING STREET
Owner/Operator City,State,Zip:	SALINAS, CA 93906
Owner/Operator Telephone:	559-301-6738
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

MARTIN ORIGEL (Continued) **1026476788**

Historic Generators:
- Receive Date: 2020-09-04 00:00:00.0
- Handler Name: MARTIN ORIGEL
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 56299
- NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

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6 **VANGSOUA SAYAOVANG** **RCRA NonGen / NLR** **1025856551**
West **5906 E DAKOTA AVE** **CAC003036877**
1/8-1/4 **FRESNO, CA 93727**
0.240 mi.
1267 ft.

Relative: **Lower**

Actual: **349 ft.**

RCRA NonGen / NLR:
- Date Form Received by Agency: 2019-10-03 00:00:00.0
- Handler Name: VANGSOUA SAYAOVANG
- Handler Address: 5906 E DAKOTA AVE
- Handler City,State,Zip: FRESNO, CA 93727-7914
- EPA ID: CAC003036877
- Contact Name: VANGSOUA SAYAOVANG
- Contact Address: 5906 E DAKOTA AVE
- Contact City,State,Zip: FRESNO, CA 93727-7914
- Contact Telephone: 559-790-5658
- Contact Fax: Not reported
- Contact Email: LIZE@PWSEI.COM
- Contact Title: Not reported
- EPA Region: 09
- Land Type: Not reported
- Federal Waste Generator Description: Not a generator, verified
- Non-Notifier: Not reported
- Biennial Report Cycle: Not reported
- Accessibility: Not reported
- Active Site Indicator: Not reported
- State District Owner: Not reported
- State District: Not reported
- Mailing Address: 5906 E DAKOTA AVE
- Mailing City,State,Zip: FRESNO, CA 93727-7914
- Owner Name: VANGSOUA SAYAOVANG

VANGSOUA SAYAOVANG (Continued) **1025856551**

Owner Type:	Other
Operator Name:	VANGSOUA SAYAOVANG
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2019-10-04 16:30:53.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

VANGSOUA SAYAOVANG (Continued) **1025856551**

Sub-Part P Indicator: No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	VANGSOUA SAYAOVANG
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	5906 E DAKOTA AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727-7914
Owner/Operator Telephone:	559-790-5658
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	VANGSOUA SAYAOVANG
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	5906 E DAKOTA AVE
Owner/Operator City,State,Zip:	FRESNO, CA 93727-7914
Owner/Operator Telephone:	559-790-5658
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2019-10-03 00:00:00.0
Handler Name: VANGSOUA SAYAOVANG	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	56299
NAICS Description:	ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

A7 **DAKOTA/ARMSTRONG SITE** **ENVIROSTOR** **S107027235**
East **DAKOTA/ARMSTRONG AVENUE** **SCH** **N/A**
1/8-1/4 **CLOVIS, CA 93611**
0.250 mi.
1318 ft. **Site 2 of 2 in cluster A**

Relative:
Higher

Actual:
354 ft.

ENVIROSTOR:

Name:	DAKOTA/ARMSTRONG SITE
Address:	DAKOTA/ARMSTRONG AVENUE
City,State,Zip:	CLOVIS, CA 93611
Facility ID:	10070076
Status:	No Further Action
Status Date:	08/08/2006
Site Code:	104487
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	17
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	23
Senate:	08
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	36.78569
Longitude:	-119.6722
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	Arsenic Chlordane Total Chromium (1:6 ratio Cr VI:Cr III DDD DDE DDT Endrin Lead Mercury (elemental Silver Toxaphene
Confirmed COC:	30021-NO 30023-NO 30001-NO 30004-NO 30005-NO 30006-NO 30007-NO 30008-NO 30010-NO 30013-NO 30014-NO
Potential Description:	SOIL
Alias Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CLOVIS USD-PRPSD DAKOTA/ARMSTRONG SITE
Alias Type:	Alternate Name
Alias Name:	104487
Alias Type:	Project Code (Site Code)
Alias Name:	10070076
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/25/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/10/2005
Comments:	Not reported

DAKOTA/ARMSTRONG SITE (Continued) **S107027235**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/17/2005
Comments:	DTSC reviewed the Phase I ESA and determined that a PEA is required.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	06/23/2005
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	08/08/2006
Comments:	DTSC approved the PEA report with a no further action recommendation.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	DAKOTA/ARMSTRONG SITE
Address:	DAKOTA/ARMSTRONG AVENUE
City,State,Zip:	CLOVIS, CA 93611
Facility ID:	10070076
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	17
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104487
Assembly:	23
Senate:	08
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	08/08/2006
Restricted Use:	NO
Funding:	School District
Latitude:	36.78569
Longitude:	-119.6722
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD

DAKOTA/ARMSTRONG SITE (Continued) **S107027235**

Potential COC:	Arsenic, Chlordane, Total Chromium (1:6 ratio Cr VI:Cr III, DDD, DDE, DDT, Endrin, Lead, Mercury (elemental, Silver, Toxaphene
Confirmed COC:	30021-NO, 30023-NO, 30001-NO, 30004-NO, 30005-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30013-NO, 30014-NO
Potential Description:	SOIL
Alias Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CLOVIS USD-PRPSD DAKOTA/ARMSTRONG SITE
Alias Type:	Alternate Name
Alias Name:	104487
Alias Type:	Project Code (Site Code)
Alias Name:	10070076
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/25/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/10/2005
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/17/2005
Comments:	DTSC reviewed the Phase I ESA and determined that a PEA is required.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	06/23/2005
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	08/08/2006
Comments:	DTSC approved the PEA report with a no further action recommendation.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

8
WSW
1/2-1
0.816 mi.
4308 ft.

DUNCAN ENTERPRISES
5715 EAST FOUNTAIN WAY
FRESNO, CA 93727

ENVIROSTOR **S102564435**
VCP **N/A**
CUPA Listings

Relative:
Lower

Actual:
342 ft.

ENVIROSTOR:

Name:	DUNCAN ENTERPRISES
Address:	5715 EAST FOUNTAIN WAY
City,State,Zip:	FRESNO, CA 93727
Facility ID:	10320045
Status:	Certified / Operation & Maintenance
Status Date:	09/20/1996
Site Code:	100640
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	35
NPL:	NO
Regulatory Agencies:	SMBRP, FRESNO COUNTY
Lead Agency:	SMBRP
Program Manager:	Danny Domingo
Supervisor:	Joseph Tapia
Division Branch:	Engineering & Special Projects
Assembly:	23
Senate:	08
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	36.78125
Longitude:	-119.6949
APN:	49602220
Past Use:	MANUFACTURING - CERAMICS
Potential COC:	* OTHER INORGANIC SOLID WASTE Lead
Confirmed COC:	Lead
Potential Description:	SOIL
Alias Name:	DUNCAN ENTERPRISES-FOUNTAIN WAY PARCEL
Alias Type:	Alternate Name
Alias Name:	Duncan Ceramics
Alias Type:	Alternate Name
Alias Name:	49602220
Alias Type:	APN
Alias Name:	CAD009103672
Alias Type:	EPA Identification Number
Alias Name:	110000482308
Alias Type:	EPA (FRS #)
Alias Name:	110033617744
Alias Type:	EPA (FRS #)
Alias Name:	100640
Alias Type:	Project Code (Site Code)
Alias Name:	10320045
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	07/20/2000
Comments:	Operation and Maintenance Agreement

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/13/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/30/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/16/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 05/21/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/12/2000
Comments: Site Status Letter indicating that DTSC has determined that the site is suitable for Industrial/Commerical but not Residential and that if no changes to current land use by Duncan Enterpises are implemented and that the terms of the O&M agreement are met, the status of the site is protective of public health.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 09/07/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/02/2011
Comments: Approval letter for Annual Inspection

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/20/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/30/1998
Comments: A REMOVAL ACTION CONSISTING OF THE CONSOLIDATION AND CAPPING OF

DUNCAN ENTERPRISES (Continued) **S102564435**

APPROXIMATELY 665 CUBIC YARDS OF LEAD IMPACTED SOIL WAS COMPLETED. THE SOIL WAS CONSOLIDATED TO AN AREA MEASURING APPROXIMATELY 320 FEET LONG BY 25 FEET WIDE. A SOIL CAP WITH A SYNTHETIC LAYER MEASURING APPROXIMATELY 340 FEET BY 45 FEET WAS CONSTRUCTED, WITH DRAINAGE CONTROL, OVER THE CONSOLIDATED AREA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 05/21/1997
Comments: CEQA -- A Negative Declaration was approved for an onsite consolidation and capping project that is to be carried out in accordance with an approved Removal Action Workplan (RAW). Work will consist of the construction of an onsite containment area to hold lead impacted soil. The consolidation area will be covered with clean soil and an impermeable synthetic layer.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 02/14/1997
Comments: Surface soil contamination was characterized and alternatives for removal actions were evaluated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 08/09/2006
Comments: DTSC completed a reassessment for USEPA under the PA/SI grant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/15/2009
Comments: Approval of Cap Inspection based upon review of resubmitted report. Visual inspection of cap reveals cap is intact with minor burrowing near the edge. This issue is to be addressed in the 5-Year activity scheduled for April 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Workplan
Completed Date: 02/17/2009
Comments: Work plan for monitoring of soils beneath the consolidated contaminated soil. Purpose to determine if the cap is effective and document migration or no migration of Lead from the consolidated contaminated soil.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/12/2009
Comments: Field Activities completed. Consited of inspection of cap surface and the installation of three soil angled soil borings to depth below the bottom of the consolidated contaminated soil. Soil samples taken and analyzed for Lead, pH and EC.

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 05/26/2009
Comments: Review, comments and approval of 5-Year Review. DTSC concurs with the conclusions of the 5-Year Review report. There will be revision of the O&M long term monitoring schedule and activities which will be addressed in an amendment to the Operation and Maintenance Agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 09/13/2012
Comments: Single document required, reviewed by staff and confirmed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 06/04/2013
Comments: Annual Cap Inspection report for calendar year 2013. DTSC concurrs with the findings of the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/25/2010
Comments: Annual field inspection and report concerning the condition of the cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 07/31/1996
Comments: VCA executed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 07/20/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 08/04/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 09/19/2014
Comments: 2014 Annual Inspection Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 06/10/2015

DUNCAN ENTERPRISES (Continued) **S102564435**

Comments:	Cost Estimate Only - FA Not Required for DTSC Conclusion
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	5 Year Review Reports
Completed Date:	03/02/2016
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation and Maintenance Report
Completed Date:	04/10/2018
Comments:	Single report reviewed. concurrence of report sent via email 4/10/2018 Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation and Maintenance Report
Completed Date:	06/26/2018
Comments:	Single Report required. Comments and approval in Response letter dated 6/26/2018
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction Monitoring Report
Completed Date:	07/29/2019
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	06/03/2020
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

VCP:

Name:	DUNCAN ENTERPRISES
Address:	5715 EAST FOUNTAIN WAY
City,State,Zip:	FRESNO, CA 93727
Facility ID:	10320045
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	35
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, FRESNO COUNTY
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program

DUNCAN ENTERPRISES (Continued) **S102564435**

Project Manager:	Danny Domingo
Supervisor:	Joseph Tapia
Division Branch:	Engineering & Special Projects
Site Code:	100640
Assembly:	23
Senate:	08
Special Programs Code:	EPA - PASI
Status:	Certified / Operation & Maintenance
Status Date:	09/20/1996
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	36.78125 / -119.6949
APN:	49602220
Past Use:	MANUFACTURING - CERAMICS
Potential COC:	20011, 30013
Confirmed COC:	30013
Potential Description:	SOIL
Alias Name:	DUNCAN ENTERPRISES-FOUNTAIN WAY PARCEL
Alias Type:	Alternate Name
Alias Name:	Duncan Ceramics
Alias Type:	Alternate Name
Alias Name:	49602220
Alias Type:	APN
Alias Name:	CAD009103672
Alias Type:	EPA Identification Number
Alias Name:	110000482308
Alias Type:	EPA (FRS #)
Alias Name:	110033617744
Alias Type:	EPA (FRS #)
Alias Name:	100640
Alias Type:	Project Code (Site Code)
Alias Name:	10320045
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	07/20/2000
Comments:	Operation and Maintenance Agreement
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/13/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/30/1999
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/16/2004
Comments:	Not reported

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 05/21/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/12/2000
Comments: Site Status Letter indicating that DTSC has determined that the site is suitable for Industrial/Commerical but not Residential and that if no changes to current land use by Duncan Enterpises are implemented and that the terms of the O&M agreement are met, the status of the site is protective of public health.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 09/07/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 06/02/2011
Comments: Approval letter for Annual Inspection

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/20/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/30/1998
Comments: A REMOVAL ACTION CONSISTING OF THE CONSOLIDATION AND CAPPING OF APPROXIMATELY 665 CUBIC YARDS OF LEAD IMPACTED SOIL WAS COMPLETED. THE SOIL WAS CONSOLIDATED TO AN AREA MEASURING APPROXIMATELY 320 FEET LONG BY 25 FEET WIDE. A SOIL CAP WITH A SYNTHETIC LAYER MEASURING APPROXIMATELY 340 FEET BY 45 FEET WAS CONSTRUCTED, WITH DRAINAGE CONTROL, OVER THE CONSOLIDATED AREA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 05/21/1997
Comments: CEQA -- A Negative Declaration was approved for an onsite consolidation and capping project that is to be carried out in accordance with an approved Removal Action Workplan (RAW). Work will consist of the construction of an onsite containment area to hold lead impacted soil. The consolidation area will be covered with clean soil and an impermeable synthetic layer.

Completed Area Name: PROJECT WIDE

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 02/14/1997
Comments: Surface soil contamination was characterized and alternatives for removal actions were evaluated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 08/09/2006
Comments: DTSC completed a reassessment for USEPA under the PA/SI grant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/15/2009
Comments: Approval of Cap Inspection based upon review of resubmitted report. Visual inspection of cap reveals cap is intact with minor burrowing near the edge. This issue is to be addressed in the 5-Year activity scheduled for April 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Workplan
Completed Date: 02/17/2009
Comments: Work plan for monitoring of soils beneath the consolidated contaminated soil. Purpose to determine if the cap is effective and document migration or no migration of Lead from the consolidated contaminated soil.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/12/2009
Comments: Field Activities completed. Consited of inspection of cap surface and the installation of three soil angled soil borings to depth below the bottom of the consolidated contaminated soil. Soil samples taken and analyzed for Lead, pH and EC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 05/26/2009
Comments: Review, comments and approval of 5-Year Review. DTSC concurs with the conclusions of the 5-Year Review report. There will be revision of the O&M long term monitoring schedule and activities which will be addressed in an amendment to the Operation and Maintenance Agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 09/13/2012
Comments: Single document required, reviewed by staff and confirmed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Date: 06/04/2013
Comments: Annual Cap Inspection report for calendar year 2013. DTSC concurrs with the findings of the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 05/25/2010
Comments: Annual field inspection and report concerning the condition of the cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 07/31/1996
Comments: VCA executed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 07/20/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 08/04/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 09/19/2014
Comments: 2014 Annual Inspection Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 06/10/2015
Comments: Cost Estimate Only - FA Not Required for DTSC Conclusion

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 03/02/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 04/10/2018
Comments: Single report reviewed. concurrence of report sent via email 4/10/2018
Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report

DUNCAN ENTERPRISES (Continued) **S102564435**

Completed Date: 06/26/2018
Comments: Single Report required. Comments and approval in Response letter dated 6/26/2018

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 07/29/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/03/2020
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CUPA FRESNO:
Name: DUNCAN ENTERPRISES
Address: 5715 E FOUNTAIN WY
City,State,Zip: FRESNO, CA 93727
Region: FRESNO
Cross Street: Not reported
Facility ID: FA0273250
APM Number: 49602220
Program Element: CONTAMINATED SITE - MISC/DTSC LEAD

9
WSW
1/2-1
0.939 mi.
4959 ft.

Relative:
Lower

Actual:
341 ft.

DUNCAN ENTERPRISES
5673 EAST SHIELDS AVENUE
FRESNO, CA 93727

SEMS-ARCHIVE **1000167842**
RCRA-LQG **CAD009103672**
ENVIROSTOR
CPS-SLIC
CERS HAZ WASTE
US AIRS
FINDS
ECHO
CUPA Listings
EMI
NPDES
WDS
CIWQS
CERS

SEMS Archive:
Site ID: 0904761
EPA ID: CAD009103672
Name: DUNCAN ENTERPRISES
Address: 5673 EAST SHIELDS AVE
Address 2: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

City,State,Zip: FRESNO, CA 93727
Cong District: 15
FIPS Code: 06019
FF: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: SI
Action Name: SI
SEQ: 1
Start Date: Not reported
Finish Date: 1993-12-15 05:00:00
Qual: L
Current Action Lead: EPA Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: Not reported
Finish Date: 1993-02-03 05:00:00
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: Not reported
Finish Date: 1993-09-07 04:00:00
Qual: H
Current Action Lead: EPA Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N

DUNCAN ENTERPRISES (Continued) **1000167842**

FF: N
OU: 00
Action Code: OO
Action Name: SITE REASS
SEQ: 1
Start Date: 2000-08-15 04:00:00
Finish Date: 2001-06-13 04:00:00
Qual: H
Current Action Lead: St Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: VA
Action Name: OTHR CLEANUP
SEQ: 1
Start Date: 2000-10-01 04:00:00
Finish Date: Not reported
Qual: Not reported
Current Action Lead: St Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: OO
Action Name: SITE REASS
SEQ: 2
Start Date: 2010-09-01 04:00:00
Finish Date: 2010-09-07 04:00:00
Qual: L
Current Action Lead: St Perf

Region: 09
Site ID: 0904761
EPA ID: CAD009103672
Site Name: DUNCAN ENTERPRISES
NPL: N
FF: N
OU: 00
Action Code: OO
Action Name: SITE REASS
SEQ: 3
Start Date: 2015-07-01 04:00:00
Finish Date: 2016-08-04 05:00:00
Qual: N
Current Action Lead: St Perf

DUNCAN ENTERPRISES (Continued) **1000167842**

RCRA-LQG:

Date Form Received by Agency:		2020-04-02 00:00:00.0
Handler Name:	DUNCAN ENTERPRISES	
Handler Address:		5673 EAST SHIELDS AVE
Handler City,State,Zip:		FRESNO, CA 93727
EPA ID:		CAD009103672
Contact Name:		JOHN T MONTGOMERY
Contact Address:		EAST SHIELDS AVENUE
Contact City,State,Zip:		FRESNO, CA 93727
Contact Telephone:		559-294-3390
Contact Fax:		559-294-4390
Contact Email:		JMONTGOMERY@DUNCANMAIL.COM
Contact Title:		ENVIRONMENTAL SPECIALIST
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Large Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		2019
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		EAST SHIELDS AVE
Mailing City,State,Zip:		FRESNO, CA 93727
Owner Name:		DUNCAN ENTERPRISES
Owner Type:		Private
Operator Name:		DUNCAN ENTERPRISE
Operator Type:		Private
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported
Permit Workload Universe:		Not reported
Permit Progress Universe:		Not reported
Post-Closure Workload Universe:		Not reported
Closure Workload Universe:		Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2020-10-01 12:39:11.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Biennial: List of Years
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D000
Waste Description: Not Defined

Waste Code: D001
Waste Description: IGNITABLE WASTE

Waste Code: D002
Waste Description: CORROSIVE WASTE

Waste Code: D003
Waste Description: REACTIVE WASTE

DUNCAN ENTERPRISES (Continued) **1000167842**

Waste Code: D004
Waste Description: ARSENIC

Waste Code: D005
Waste Description: BARIUM

Waste Code: D006
Waste Description: CADMIUM

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: D009
Waste Description: MERCURY

Waste Code: D018
Waste Description: BENZENE

Waste Code: D027
Waste Description: 1,4-DICHLOROBENZENE

Waste Code: D039
Waste Description: TETRACHLOROETHYLENE

Waste Code: D040
Waste Description: TRICHLORETHYLENE

Waste Code: F003
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: P004
Waste Description: 1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA-CHLORO-1,4,4A,5,8,8A,-HEXAHYDRO-, (1ALPHA, 4ALPHA, 4ABETA, 5ALPHA, 8ALPHA, 8ABETA)- (OR) ALDRIN

Waste Code: P044
Waste Description: DIMETHOATE (OR) PHOSPHORODITHIOIC ACID, O,O-DIMETHYL S-[2-(METHYLAMINO)-2-OXOETHYL] ESTER

Waste Code: P051
Waste Description: 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)- & METABOLITES (OR) ENDRIN (OR) ENDRIN, & METABOLITES

DUNCAN ENTERPRISES (Continued) **1000167842**

Waste Code: P123
Waste Description: TOXAPHENE

Waste Code: U002
Waste Description: 2-PROPANONE (I) (OR) ACETONE (I)

Waste Code: U025
Waste Description: DICHLOROETHYL ETHER (OR) ETHANE, 1,1'-OXYBIS[2-CHLORO-

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: DUNCAN ENTERPRISES
Legal Status: Private
Date Became Current: 1946-06-01 00:00:00.
Date Ended Current: Not reported
Owner/Operator Address: 5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip: FRESNO, CA 93727
Owner/Operator Telephone: 559-294-4402
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: NOT REQUIRED
Legal Status: Private
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, ME 99999
Owner/Operator Telephone: 415-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DUNCAN ENTERPRISES
Legal Status: Private
Date Became Current: 1946-06-01 00:00:00.
Date Ended Current: Not reported
Owner/Operator Address: 5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip: FRESNO, CA 93727
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: DUNCAN ENTERPRISE
Legal Status: Private
Date Became Current: 1946-06-01 00:00:00.
Date Ended Current: Not reported
Owner/Operator Address: 5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip: FRESNO, CA 93230
Owner/Operator Telephone: 559-294-4402
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-294-4402
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	DUNCAN ENTERPRISE
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip:	FRESNO, CA 93230
Owner/Operator Telephone:	559-294-4402
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	SAME AS ITEM 4
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	DUNCAN ENTERPRISE
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip:	FRESNO, CA 93230
Owner/Operator Telephone:	559-294-4402
Owner/Operator Telephone Ext:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	SAME AS FIRST PAGE
Owner/Operator City,State,Zip:	FRESNO, CA
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	DUNCAN FINANCIAL
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	5661 E SHIELDS
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-291-4444
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	5673 EAST SHIELDS AVENUE
Owner/Operator City,State,Zip:	FRESNO, CA 93727
Owner/Operator Telephone:	559-294-4402
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	DUNCAN ENTERPRISES
Legal Status:	Private
Date Became Current:	1946-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 2010-02-16 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2020-04-02 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 1996-09-01 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1980-07-17 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Electronic Manifest Broker: Not reported

Receive Date: 2000-12-21 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2020-03-27 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 1992-02-25 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1994-03-14 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1999-03-04 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator

DUNCAN ENTERPRISES (Continued) **1000167842**

State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2000-10-12 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2002-02-22 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2004-02-24 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2006-02-28 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No

DUNCAN ENTERPRISES (Continued) **1000167842**

Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 2008-02-29 00:00:00.0
Handler Name: DUNCAN ENTERPRISES
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 32551
NAICS Description: PAINT AND COATING MANUFACTURING

NAICS Code: 32552
NAICS Description: ADHESIVE MANUFACTURING

NAICS Code: 327112
NAICS Description: VITREOUS CHINA, FINE EARTHENWARE, AND OTHER POTTERY PRODUCT MANUFACTURING

Facility Has Received Notices of Violation:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 2005-12-09 00:00:00.0
Actual Return to Compliance Date: 2005-12-14 00:00:00.0
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 501
Date of Enforcement Action: 2005-12-09 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 2003-01-08 00:00:00.0
Actual Return to Compliance Date: 2003-02-08 00:00:00.0
Return to Compliance Qualifier: Observed
Violation Responsible Agency: State

DUNCAN ENTERPRISES (Continued) **1000167842**

Scheduled Compliance Date:	Not reported
Enforcement Identifier:	501
Date of Enforcement Action:	2003-01-08 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	State Statute or Regulation
Date Violation was Determined:	2004-02-25 00:00:00.0
Actual Return to Compliance Date:	2004-03-03 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	2004-04-20 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 2004-02-25 00:00:00.0
Actual Return to Compliance Date: 2004-03-03 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 300
Date of Enforcement Action: 2004-02-25 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	Generators - General
Date Violation was Determined:	2005-09-21 00:00:00.0
Actual Return to Compliance Date:	2005-10-07 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	EPA
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	2005-10-14 00:00:00.0
Enforcement Responsible Agency:	EPA
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	RHOLL
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	1985-09-23 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2005-12-09 00:00:00.0
Evaluation Responsible Agency:	Local
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2005-12-14 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2003-01-08 00:00:00.0
Evaluation Responsible Agency:	State Contractor/Grantee
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2003-02-08 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2004-02-25 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2004-03-03 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2004-02-25 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2004-03-03 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Former Citation:	Not reported
Evaluation Date:	2004-01-08 00:00:00.0
Evaluation Responsible Agency:	State Contractor/Grantee
Found Violation:	No
Evaluation Type Description:	FOCUSED COMPLIANCE INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	1984-02-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2005-09-21 00:00:00.0
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	RHOLL
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2005-10-07 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

ENVIROSTOR:

Name:	DUNCAN ENTERPRISES
Address:	5673 E. SHIELDS AVENUE
City,State,Zip:	FRESNO, CA 93727
Facility ID:	71002247
Status:	Inactive - Needs Evaluation
Status Date:	09/20/2017
Site Code:	102287
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Supervisor: Kevin Shaddy
Division Branch: Engineering & Special Projects
Assembly: 23
Senate: 08
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 36.77995
Longitude: -119.6978
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD009103672
Alias Type: EPA Identification Number
Alias Name: 110000482308
Alias Type: EPA (FRS #)
Alias Name: 102287
Alias Type: Project Code (Site Code)
Alias Name: 71002247
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 06/19/1998
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 08/04/2016
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:
Name: DUNCAN ENTERPRISES (FOUNTAIN WAY PARCEL SITE)
Address: 5673 E. SHIELDS AVE.
City,State,Zip: FRESNO, CA 93727-7819
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 05/01/1999
Global Id: SLT5FT901025
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5F)
Lead Agency Case Number: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Latitude: 36.781062
Longitude: -119.697236
Case Type: Cleanup Program Site
Case Worker: JYH
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RB Case Number: SLT5FT090
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

CERS HAZ WASTE:
Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Site ID: 26688
CERS ID: 10153483
CERS Description: Hazardous Waste Generator

US AIRS (AFS):
Envid: 1000167842
Region Code: 09
County Code: CA019
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
D and B Number: Not reported
Facility Site Name: DUNCAN CERAMICS
Primary SIC Code: 2851
NAICS Code: 325510
Default Air Classification Code: SMI
Facility Type of Ownership Code: POF
Air CMS Category Code: SMI
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1977-10-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1978-10-10 00:00:00
Activity Status Date: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1979-12-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-09-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-09-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-09-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI

DUNCAN ENTERPRISES (Continued) **1000167842**

Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-03-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-03-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-03-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-11-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442

DUNCAN ENTERPRISES (Continued) **1000167842**

Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-02-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-03-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-04-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-10-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-12-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1993-05-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1994-09-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-08-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-08-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

DUNCAN ENTERPRISES (Continued) **1000167842**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-09-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1999-08-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2000-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

DUNCAN ENTERPRISES (Continued) **1000167842**

Activity Date: 2001-09-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-08-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2003-07-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-09-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASJV00006019C0442
Facility Registry ID: 110000482308
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-08-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

FINDS:
Registry ID: 110000482308

DUNCAN ENTERPRISES (Continued) **1000167842**

Click Here:

Environmental Interest/Information System:

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.
AIR EMISSIONS CLASSIFICATION UNKNOWN
AIR SYNTHETIC MINOR
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
HAZARDOUS WASTE BIENNIAL REPORTER
STATE MASTER
ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

DUNCAN ENTERPRISES (Continued) **1000167842**

ECHO:

Envid:	1000167842
Registry ID:	110000482308
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110000482308
Name:	DUNCAN ENTERPRISES
Address:	5673 EAST SHIELDS AVENUE
City,State,Zip:	FRESNO, CA 93727

CUPA FRESNO:

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	LARGE HAZARDOUS MATERIALS HANDLER

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	CLOSED HAZARDOUS WASTE TREATMENT UNIT

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	CLOSED HAZARDOUS WASTE TREATMENT UNIT

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	CLOSED HAZARDOUS WASTE TREATMENT UNIT

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	CONTAMINATED SITE - MISC/USEPA LEAD

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE

DUNCAN ENTERPRISES (Continued) **1000167842**

City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	SABRE
Facility ID:	FA0270816
APM Number:	49602316
Program Element:	HAZARDOUS WASTE GENERATOR (LQG)

EMI:

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	1996
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	6
Part. Matter 10 Micrometers and Smllr Tons/Yr:	6

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	1997
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	6
Part. Matter 10 Micrometers and Smllr Tons/Yr:	6

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	1998
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851

DUNCAN ENTERPRISES (Continued) **1000167842**

Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	6
Part. Matter 10 Micrometers and Smllr Tons/Yr:	6

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	1999
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	6
Part. Matter 10 Micrometers and Smllr Tons/Yr:	6

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2001
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2002
County Code:	10
Air Basin:	SJV

DUNCAN ENTERPRISES (Continued) **1000167842**

Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2003
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2004
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.000287738
Reactive Organic Gases Tons/Yr:	0.00024075
Carbon Monoxide Emissions Tons/Yr:	0.000765
NOX - Oxides of Nitrogen Tons/Yr:	0.00196425
SOX - Oxides of Sulphur Tons/Yr:	0.000234
Particulate Matter Tons/Yr:	0.250637043
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.175488465

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000

DUNCAN ENTERPRISES (Continued) **1000167842**

Year:	2005
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001918250226037349
Reactive Organic Gases Tons/Yr:	.000160499996412545
Carbon Monoxide Emissions Tons/Yr:	.000509999988600612
NOX - Oxides of Nitrogen Tons/Yr:	.00130949997073039
SOX - Oxides of Sulphur Tons/Yr:	.000155999996513128
Particulate Matter Tons/Yr:	.2455972558196198921
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.1377680967055074865

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2006
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001918250226037349
Reactive Organic Gases Tons/Yr:	.000160499996412545
Carbon Monoxide Emissions Tons/Yr:	.000509999988600612
NOX - Oxides of Nitrogen Tons/Yr:	.00130949997073039
SOX - Oxides of Sulphur Tons/Yr:	.0000010599999763071
Particulate Matter Tons/Yr:	.2250345104613571494
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.1262135992966406046

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 937270000
Year:	2007
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001918250226037349
Reactive Organic Gases Tons/Yr:	.000160499996412545
Carbon Monoxide Emissions Tons/Yr:	.000509999988600612
NOX - Oxides of Nitrogen Tons/Yr:	.00130949997073039
SOX - Oxides of Sulphur Tons/Yr:	.0000010599999763071
Particulate Matter Tons/Yr:	.2176415905241552358
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.122067804137300697

DUNCAN ENTERPRISES (Continued) **1000167842**

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2008
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0001918250226037349
Reactive Organic Gases Tons/Yr:	.000160499996412545
Carbon Monoxide Emissions Tons/Yr:	.000509999988600612
NOX - Oxides of Nitrogen Tons/Yr:	.00130949997073039
SOX - Oxides of Sulphur Tons/Yr:	.0000010599999763071
Particulate Matter Tons/Yr:	.2036761950684542251
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.114268302684854713

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2009
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.91825022603734E-4
Reactive Organic Gases Tons/Yr:	1.6049999641254501E-4
Carbon Monoxide Emissions Tons/Yr:	5.0999998860061198E-4
NOX - Oxides of Nitrogen Tons/Yr:	1.3094999707303899E-3
SOX - Oxides of Sulphur Tons/Yr:	1.05999997630715E-6
Particulate Matter Tons/Yr:	0.16523676085345301
Part. Matter 10 Micrometers and Smllr Tons/Yr:	9.2668299518655906E-2

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.9122744113780299E-4
Reactive Organic Gases Tons/Yr:	1.6000000000000001E-4
Carbon Monoxide Emissions Tons/Yr:	5.1000000000000004E-4
NOX - Oxides of Nitrogen Tons/Yr:	0.00131
SOX - Oxides of Sulphur Tons/Yr:	0.00000106

DUNCAN ENTERPRISES (Continued) **1000167842**

Particulate Matter Tons/Yr: 0.20310610655737699
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.113914

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Year: 2011
County Code: 10
Air Basin: SJV
Facility ID: 442
Air District Name: SJU
SIC Code: 2851
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00069815942027
Reactive Organic Gases Tons/Yr: 0.00058414998694
Carbon Monoxide Emissions Tons/Yr: 0.00058414998694
NOX - Oxides of Nitrogen Tons/Yr: 0.0013094999707
SOX - Oxides of Sulphur Tons/Yr: 1.0599999763e-006
Particulate Matter Tons/Yr: 0.20259715843
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.11350314806

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Year: 2012
County Code: 10
Air Basin: SJV
Facility ID: 442
Air District Name: SJU
SIC Code: 2851
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00069815942027
Reactive Organic Gases Tons/Yr: 0.00058414998694
Carbon Monoxide Emissions Tons/Yr: 0.00058414998694
NOX - Oxides of Nitrogen Tons/Yr: 0.0013094999707
SOX - Oxides of Sulphur Tons/Yr: 1.0599999763e-006
Particulate Matter Tons/Yr: 0.19971715872
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.11189034823

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Year: 2013
County Code: 10
Air Basin: SJV
Facility ID: 442
Air District Name: SJU
SIC Code: 2851
Air District Name: SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00066476949345
Reactive Organic Gases Tons/Yr: 0.000584

DUNCAN ENTERPRISES (Continued) **1000167842**

Carbon Monoxide Emissions Tons/Yr:	0.000584
NOX - Oxides of Nitrogen Tons/Yr:	0.00131
SOX - Oxides of Sulphur Tons/Yr:	1.06e-006
Particulate Matter Tons/Yr:	0.17719537471
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.099278

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2014
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00066494022418
Reactive Organic Gases Tons/Yr:	0.00058414998694
Carbon Monoxide Emissions Tons/Yr:	0.00058414998694
NOX - Oxides of Nitrogen Tons/Yr:	0.0013094999707
SOX - Oxides of Sulphur Tons/Yr:	1.0599999763e-006
Particulate Matter Tons/Yr:	0.17721430833
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.099288752006

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2015
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00066476949345
Reactive Organic Gases Tons/Yr:	0.000584
Carbon Monoxide Emissions Tons/Yr:	0.000584
NOX - Oxides of Nitrogen Tons/Yr:	0.00131
SOX - Oxides of Sulphur Tons/Yr:	1.06e-006
Particulate Matter Tons/Yr:	0.16695608899
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.093544

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Year:	2016
County Code:	10
Air Basin:	SJV
Facility ID:	442
Air District Name:	SJU
SIC Code:	2851
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00066476949345
Reactive Organic Gases Tons/Yr: 0.000584
Carbon Monoxide Emissions Tons/Yr: 0.000584
NOX - Oxides of Nitrogen Tons/Yr: 0.00131
SOX - Oxides of Sulphur Tons/Yr: 1.06e-006
Particulate Matter Tons/Yr: 0.20090251756
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.112554

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Year: 2017
County Code: 10
Air Basin: SJV
Facility ID: 442
Air District Name: SJU
SIC Code: 2851
Air District Name: SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00066476949345
Reactive Organic Gases Tons/Yr: 0.000584
Carbon Monoxide Emissions Tons/Yr: 0.000584
NOX - Oxides of Nitrogen Tons/Yr: 0.00131
SOX - Oxides of Sulphur Tons/Yr: 1.06e-006
Particulate Matter Tons/Yr: 0.19580894256
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.109701598

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Year: 2018
County Code: 10
Air Basin: SJV
Facility ID: 442
Air District Name: SJU
SIC Code: 2851
Air District Name: SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00066476949345
Reactive Organic Gases Tons/Yr: 0.000584
Carbon Monoxide Emissions Tons/Yr: 0.000584
NOX - Oxides of Nitrogen Tons/Yr: 0.00131
SOX - Oxides of Sulphur Tons/Yr: 1.06e-006
Particulate Matter Tons/Yr: 0.19685040599
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.110286002

NPDES:
Name: DUNCAN ENTERPRISES
Address: 5673 EAST SHIELDS AVENUE
City,State,Zip: FRESNO, CA 93727
Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5F10NEC004476
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	09/11/2018
Operator Name:	Duncan Enterprises
Operator Address:	5673 East Shields Avenue
Operator City:	Fresno
Operator State:	California
Operator Zip:	93727

Name:	DUNCAN ENTERPRISES
Address:	5673 EAST SHIELDS AVENUE
City,State,Zip:	FRESNO, CA 93727
Facility Status:	Active
NPDES Number:	CAS000001
Region:	5F
Agency Number:	0
Regulatory Measure ID:	464100
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	5F10NEC004476
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/21/2015
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	5673 East Shields Avenue
Discharge Name:	Duncan Enterprises
Discharge City:	Fresno
Discharge State:	California
Discharge Zip:	93727
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

WDS:

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVENUE
City:	FRESNO

DUNCAN ENTERPRISES (Continued) **1000167842**

Facility ID:	5F 10I002416
Facility Type:	Not reported
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	DUNCAN ENTERPRISES
Agency Address:	Not reported
Agency City,St,Zip:	0
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Not reported
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	DUNCAN CERAMICS
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Agency:	Duncan Ceramics
Agency Address:	5673 E Shields Ave, Fresno, CA 93727
Place/Project Type:	Industrial - Pottery Products, NEC
SIC/NAICS:	3269(+)
Region:	5F
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	5F10I002416
NPDES Number:	CAS000001
Adoption Date:	01/01/1900

DUNCAN ENTERPRISES (Continued) **1000167842**

Effective Date:	04/01/1992
Termination Date:	07/02/2010
Expiration/Review Date:	01/01/1900
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	36.77958
Longitude:	-119.69537

Name:	DUNCAN ENTERPRISES
Address:	5673 EAST SHIELDS AVENUE
City,State,Zip:	FRESNO, CA 93727
Agency:	Duncan Enterprises
Agency Address:	5673 East Shields Avenue, Fresno, CA 93727
Place/Project Type:	Industrial - Paints, Varnishes, Lacquers, Enamels, and Allied Products
SIC/NAICS:	2851
Region:	5F
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	5F10NEC004476
NPDES Number:	CAS000001
Adoption Date:	01/01/1900
Effective Date:	10/21/2015
Termination Date:	01/01/1900
Expiration/Review Date:	01/01/1900
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	36.781062
Longitude:	-119.697236

CERS:

Name:	DUNCAN ENTERPRISES
Address:	5673 E SHIELDS AVE
City,State,Zip:	FRESNO, CA 93727
Site ID:	26688
CERS ID:	93727DNCNN5673E
CERS Description:	Toxic Release Inventory

Violations:

Site ID:	26688
Site Name:	DUNCAN ENTERPRISES
Violation Date:	07-12-2016
Citation:	22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description:	Failure to provide employees with hazardous waste training within the first six months after the date of their employment or assignment to a facility, or to a new position at a facility and annually thereafter. Training records on current personnel shall be kept until closure of

DUNCAN ENTERPRISES (Continued) **1000167842**

	the facility and for former employees the record shall be kept for at least three years from the date the employee last worked at the facility.
Violation Notes:	Returned to compliance on 09/12/2016. provide training documents for staff
Violation Division:	Fresno County Department of Public Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	26688
Site Name:	DUNCAN ENTERPRISES
Violation Date:	07-12-2016
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 09/12/2016. annual refresher training
Violation Division:	Fresno County Department of Public Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-12-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-12-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	26688
Facility Name:	DUNCAN ENTERPRISES
Env Int Type Code:	TRI
Program ID:	93727DNCNN5673E
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	36.779979
Longitude:	-119.697456

Affiliation:

Affiliation Type Desc:	Company Official
Entity Name:	John T. Montgomery
Entity Title:	Environmental Specialist

DUNCAN ENTERPRISES (Continued) **1000167842**

Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271
Affiliation Type Desc:	Document Preparer
Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	John T. Montgomery
Entity Title:	Environmental Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Public Contact
Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	5592943390

DUNCAN ENTERPRISES (Continued) **1000167842**

Affiliation Type Desc:	Technical Contact
Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	5592943390

Affiliation Type Desc:	Environmental Contact
Entity Name:	John Montgomery
Entity Title:	Not reported
Affiliation Address:	5673 East Shields Avenue
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 294-4402

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	5673 E SHIELDS AVE
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93727-7819
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	5673 East Shields Avenue
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93727
Affiliation Phone:	(559) 291-4444

Affiliation Type Desc:	Parent Company
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Affiliation Zip: 93727
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: Duncan Enterprises
Entity Title: Not reported
Affiliation Address: 5673 East Shields Avenue
Affiliation City: Fresno
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 93727
Affiliation Phone: (559) 291-4441

Name: DUNCAN ENTERPRISES
Address: 5673 EAST SHIELDS AVENUE
City,State,Zip: FRESNO, CA 93727-7819
Site ID: 465286
CERS ID: 110000482308
CERS Description: US EPA Air Emission Inventory System (EIS)

Affiliation:
Affiliation Type Desc: Public Contact
Entity Name: JOHN T. MONTGOMERY
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: JOHN T MONTGOMERY
Entity Title: ENVIRONMENTAL SPECIALIST
Affiliation Address: 5673 EAST SHIELDS AVE
Affiliation City: FRESNO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Name: DUNCAN ENTERPRISES
Address: 5673 EAST SHIELDS AVENUE
City,State,Zip: FRESNO, CA 93727
Site ID: 530849
CERS ID: 841366
CERS Description: Industrial Facility Storm Water

Affiliation:
Affiliation Type Desc: Owner/Operator
Entity Name: Duncan Enterprises
Entity Title: Operator
Affiliation Address: 5673 East Shields Avenue
Affiliation City: Fresno
Affiliation State: CA
Affiliation Country: Not reported

DUNCAN ENTERPRISES (Continued) **1000167842**

Affiliation Zip: 93727
Affiliation Phone: Not reported

Name: DUNCAN ENTERPRISES (FOUNTAIN WAY PARCEL SITE)
Address: 5673 E. SHIELDS AVE.
City,State,Zip: FRESNO, CA 93727-7819
Site ID: 242925
CERS ID: SLT5FT901025
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: JONG HAN - CENTRAL VALLEY RWQCB (REGION 5F)
Entity Title: Not reported
Affiliation Address: 1685 E. Street
Affiliation City: Fresno
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Name: DUNCAN ENTERPRISES
Address: 5673 E SHIELDS AVE
City,State,Zip: FRESNO, CA 93727
Site ID: 26688
CERS ID: 10153483
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 26688
Site Name: DUNCAN ENTERPRISES
Violation Date: 07-12-2016
Citation: 22 CCR 15 66265.16 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.16
Violation Description: Failure to provide employees with hazardous waste training within the first six months after the date of their employment or assignment to a facility, or to a new position at a facility and annually thereafter. Training records on current personnel shall be kept until closure of the facility and for former employees the record shall be kept for at least three years from the date the employee last worked at the facility.
Violation Notes: Returned to compliance on 09/12/2016. provide training documents for staff
Violation Division: Fresno County Department of Public Health
Violation Program: HW
Violation Source: CERS

Site ID: 26688
Site Name: DUNCAN ENTERPRISES
Violation Date: 07-12-2016
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

DUNCAN ENTERPRISES (Continued) **1000167842**

Violation Notes: Returned to compliance on 09/12/2016. annual refresher training
Violation Division: Fresno County Department of Public Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-12-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-12-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 26688
Facility Name: DUNCAN ENTERPRISES
Env Int Type Code: TRI
Program ID: 93727DNCNN5673E
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 36.779979
Longitude: -119.697456

Affiliation:
Affiliation Type Desc: Company Official
Entity Name: John T. Montgomery
Entity Title: Environmental Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: 93727
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Fresno County Community Health Department
Entity Title: Not reported
Affiliation Address: 1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City: Fresno
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93775
Affiliation Phone: (559) 600-3271

Affiliation Type Desc: Document Preparer

DUNCAN ENTERPRISES (Continued) **1000167842**

Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	John T. Montgomery
Entity Title:	Environmental Specialist
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Public Contact
Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	5592943390
Affiliation Type Desc:	Technical Contact
Entity Name:	JOHN T. MONTGOMERY
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	5592943390
Affiliation Type Desc:	Environmental Contact
Entity Name:	John Montgomery
Entity Title:	Not reported
Affiliation Address:	5673 East Shields Avenue
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93727

DUNCAN ENTERPRISES (Continued) **1000167842**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 294-4402
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	5673 E SHIELDS AVE
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93727-7819
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	5673 East Shields Avenue
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93727
Affiliation Phone:	(559) 291-4444
Affiliation Type Desc:	Parent Company
Entity Name:	DUNCAN ENTERPRISES
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	93727
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Duncan Enterprises
Entity Title:	Not reported
Affiliation Address:	5673 East Shields Avenue
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93727
Affiliation Phone:	(559) 291-4441

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FRESNO	S123785057	FOWLER-MCKINLEY ELEMENTARY SCHOOL	NORTHEAST CORNER OF FOWLER AVE	93727	ENVIROSTOR, SCH
FRESNO	S126143205	PROPOSED TEMPERANCE ELEMENTARY SCH	WEST SIDE OF TEMPERANCE AVENUE	93727	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 03/30/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 83

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/22/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/09/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/16/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/22/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/24/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/16/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/24/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/17/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/22/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/05/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/02/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/30/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/26/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/10/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/02/2021
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/09/2021
Number of Days to Update: 82

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/09/2021
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/05/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73
Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78
Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/17/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/21/2020
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/08/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 1

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/15/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/15/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/16/2020
Date Data Arrived at EDR: 11/18/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 78
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/08/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 12/03/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/24/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/06/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PALOUTZIAN PROPERTY
3518 N. FOWLER AVENUE
FRESNO, CA 93727

TARGET PROPERTY COORDINATES

Latitude (North):	36.787616 - 36° 47' 15.42''
Longitude (West):	119.679817 - 119° 40' 47.34''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	260868.2
UTM Y (Meters):	4074460.0
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5603160 CLOVIS, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

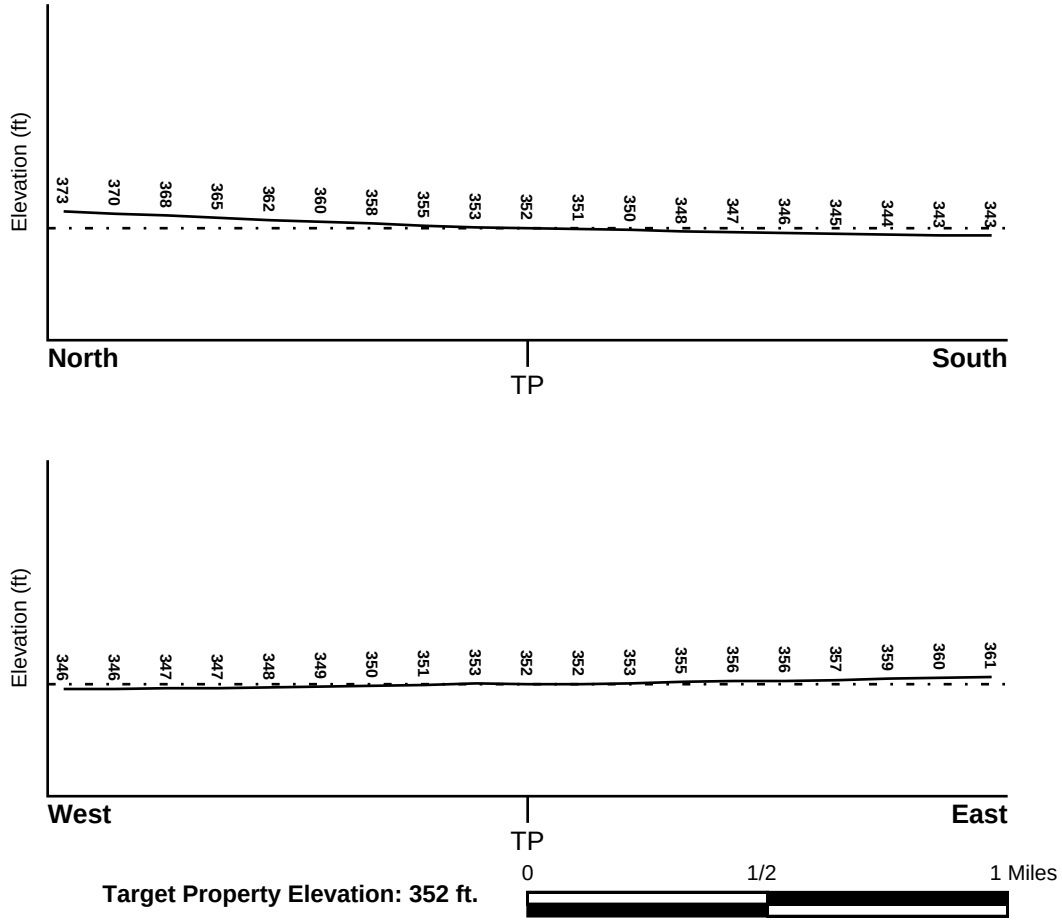
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06019C1595H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06019C1590H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CLOVIS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

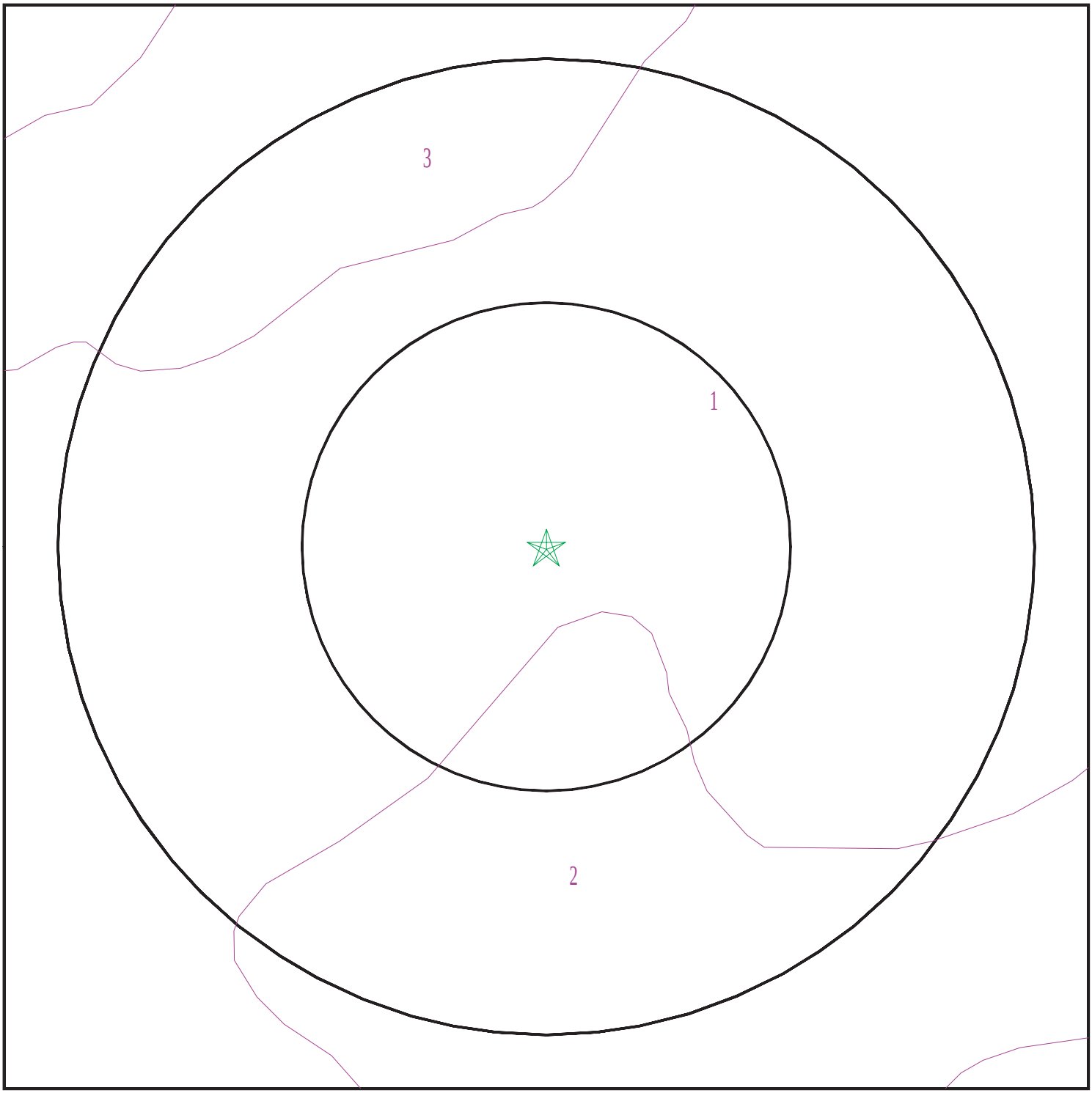
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6512846.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Paloutzian Property	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	3518 N. Fowler Avenue Fresno CA 93727	CONTACT:	William Vick
LAT/LONG:	36.787616 / 119.679817	INQUIRY #:	6512846.2s
		DATE:	May 27, 2021 2:53 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:
2	11 inches	24 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:
3	24 inches	40 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	40 inches	53 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:

Soil Map ID: 2

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	11 inches	24 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	24 inches	38 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
4	38 inches	59 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: ATWATER

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	24 inches	40 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	40 inches	44 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
3	0 inches	24 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000177723	1/8 - 1/4 Mile NNW
7	USGS40000177651	1/2 - 1 Mile SE
B9	USGS40000177806	1/2 - 1 Mile North
B12	USGS40000177808	1/2 - 1 Mile North
17	USGS40000177727	1/2 - 1 Mile East
C20	USGS40000177809	1/2 - 1 Mile NW
E26	USGS40000177609	1/2 - 1 Mile SW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

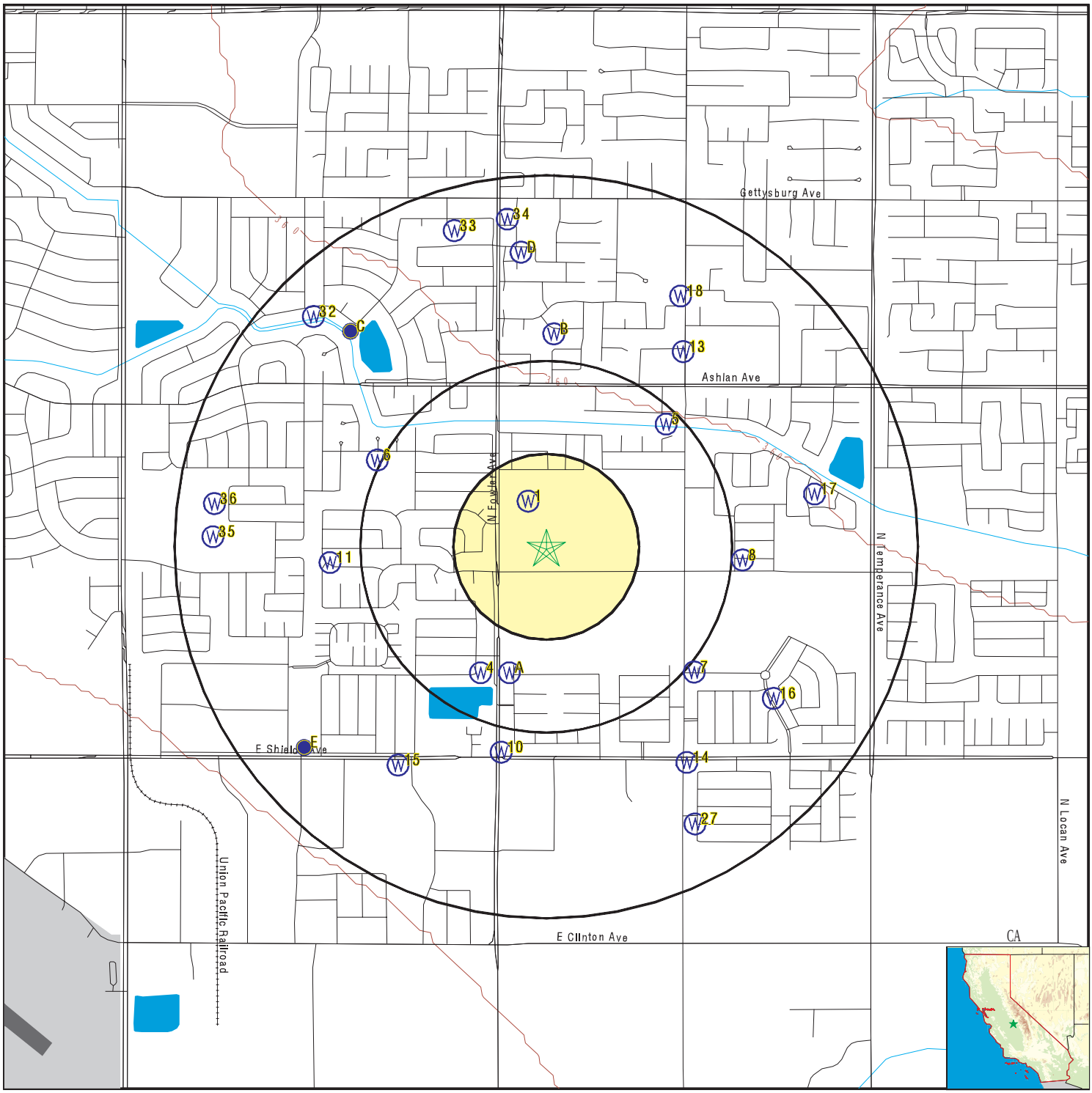
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	CADDW0000014146	1/4 - 1/2 Mile SSW
A3	CAPFAS000001554	1/4 - 1/2 Mile SSW
4	CADWR8000029825	1/4 - 1/2 Mile SSW
5	CADWR8000029895	1/4 - 1/2 Mile NE
6	CADWR0000033719	1/2 - 1 Mile WNW
8	CADPR0000003941	1/2 - 1 Mile East
10	CADWR8000029786	1/2 - 1 Mile SSW
11	CADPR0000000768	1/2 - 1 Mile West
13	11803	1/2 - 1 Mile NE
14	CADWR8000029782	1/2 - 1 Mile SSE
15	CADWR8000029777	1/2 - 1 Mile SW
16	CADPR0000003927	1/2 - 1 Mile ESE
18	CADDW0000013983	1/2 - 1 Mile NNE
C19	CAUSGSN00006844	1/2 - 1 Mile NW
D21	CADDW0000021417	1/2 - 1 Mile North
D22	11802	1/2 - 1 Mile North
E23	CADDW0000022628	1/2 - 1 Mile SW
E24	CAPFAS000001256	1/2 - 1 Mile SW
E25	CAUSGSN00016002	1/2 - 1 Mile SW
27	CADDW0000016066	1/2 - 1 Mile SSE
E28	CADDW0000019599	1/2 - 1 Mile SW
E29	CALLNL000000442	1/2 - 1 Mile SW
E30	CADWR0000030106	1/2 - 1 Mile SW
E31	11822	1/2 - 1 Mile SW
32	CADDW0000001662	1/2 - 1 Mile NW
33	11806	1/2 - 1 Mile NNW
34	CADDW0000011993	1/2 - 1 Mile North
35	11819	1/2 - 1 Mile West
36	CADDW0000000228	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 6512846.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Paloutzian Property	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	3518 N. Fowler Avenue Fresno CA 93727	CONTACT:	William Vick
		INQUIRY #:	6512846.2s
LAT/LONG:	36.787616 / 119.679817	DATE:	May 27, 2021 2:53 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNW
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000177723**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E21H001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19530518	Well Depth:	120
Well Depth Units:	ft	Well Hole Depth:	130
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-15
Feet below surface:	42.94	Feet to sea level:	Not Reported
Note:	Not Reported		

A2
SSW
1/4 - 1/2 Mile
Lower

CA WELLS **CADDW0000014146**

Well ID:	1010007-646	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 326 - INF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-646&store_num=		
GeoTracker Data:	Not Reported		

A3
SSW
1/4 - 1/2 Mile
Lower

CA WELLS **CAPFAS000001554**

Well ID:	1010007-646	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 326 - INF	GAMA PFAS Testing:	Yes
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-646&store_num=		
GeoTracker Data:	Not Reported		

4
SSW
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR8000029825**

State Well #:	13S21E21R001M	Station ID:	34091
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

5
NE
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR8000029895**

State Well #:	13S21E22C001M	Station ID:	14118
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

6
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000033719**

Well ID:	13S21E15N002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	13S21E15N002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=13S21E15N002M&store_num=		
GeoTracker Data:	Not Reported		

7
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000177651**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E22L001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19560215	Well Depth:	100
Well Depth Units:	ft	Well Hole Depth:	125
Well Hole Depth Units:	ft		

8
East
1/2 - 1 Mile
Higher

CA WELLS **CADPR0000003941**

Well ID:	79968	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	79968	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=79968&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B9
North
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000177806**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E15N001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19520314	Well Depth:	63.5
Well Depth Units:	ft	Well Hole Depth:	120
Well Hole Depth Units:	ft		

10
SSW
1/2 - 1 Mile
Lower | **CA WELLS** | **CADWR8000029786**

State Well #:	13S21E22N001M	Station ID:	34092
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

11
West
1/2 - 1 Mile
Lower | **CA WELLS** | **CADPR0000000768**

Well ID:	79962	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	79962	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=79962&store_num=		
GeoTracker Data:	Not Reported		

B12
North
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000177808**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E15N002M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1957	Well Depth:	90
Well Depth Units:	ft	Well Hole Depth:	129

Well Hole Depth Units: ft

Ground water levels,Number of Measurements: 1 Level reading date: 1963-02-11
Feet below surface: 49.52 Feet to sea level: Not Reported
Note: Not Reported

13
NE
1/2 - 1 Mile
Higher

CA WELLS 11803

Seq:	11803	Prim sta c:	13S/21E-15P02 M
Frds no:	1010003018	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 16 - STANDBY	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364743.0	Longitude:	1194020.0
Precision:	2	Status:	SU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		
Sample date:	25-OCT-17	Finding:	0.4
Chemical:	PHOSPHATE (AS PO4)	Report units:	UG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	0.29
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	13-SEP-17	Finding:	3.e-003
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	67.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	13-SEP-17	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	13-SEP-17	Finding:	0.11
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	13-SEP-17	Finding:	9.2
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	13-SEP-17	Finding:	7.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	29.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	10.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	95.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	2.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-17	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	320.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	2.7
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.9
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	0.2
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		

Sample date:	09-SEP-16	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	28.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	09-SEP-16	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	09-SEP-16	Finding:	0.11
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	8.7
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-SEP-16	Finding:	6.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	31.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	10.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	96.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	300.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.31
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU

Dlr:	0.1		
Sample date:	10-MAR-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-SEP-15	Finding:	0.21
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	03-SEP-15	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	300.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-SEP-15	Finding:	90.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	21.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	9.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	31.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	7.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-15	Finding:	7.6
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	03-SEP-15	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		

Sample date:	03-SEP-15	Finding:	25.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	03-SEP-15	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	04-DEC-14	Finding:	2.e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	15-SEP-14	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	0.44
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	15-SEP-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	2.e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	15-SEP-14	Finding:	27.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	15-SEP-14	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	15-SEP-14	Finding:	8.1
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	15-SEP-14	Finding:	6.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	31.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	280.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L

Dlr:	0.		
Sample date:	15-SEP-14	Finding:	89.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	21.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	15-SEP-14	Finding:	8.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-SEP-12	Finding:	290.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

14
SSE **CA WELLS** **CADWR8000029782**
1/2 - 1 Mile
Lower

State Well #:	13S21E27C001M	Station ID:	34095
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

15
SW **CA WELLS** **CADWR8000029777**
1/2 - 1 Mile
Lower

State Well #:	13S21E28B001M	Station ID:	34096
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

16
ESE **CA WELLS** **CADPR0000003927**
1/2 - 1 Mile
Higher

Well ID:	85855	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	85855	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=85855&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

17
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000177727**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E22H001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-21
Feet below surface:	34.57	Feet to sea level:	Not Reported
Note:	Not Reported		

18
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000013983**

Well ID:	1010003-018	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 16 - IRON AND MANGANESE (RAW)		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010003-018&store_num=		
GeoTracker Data:	Not Reported		

C19
NW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00006844**

Well ID:	USGS-364746119411801	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364746119411801	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364746119411801&store_num=		
GeoTracker Data:	Not Reported		

C20
NW
1/2 - 1 Mile
Higher

FED USGS **USGS40000177809**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E16Q001M	Type:	Well

Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19591118	Well Depth:	267
Well Depth Units:	ft	Well Hole Depth:	291
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-21
Feet below surface:	54.76	Feet to sea level:	Not Reported
Note:	Not Reported		

D21
North
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000021417**

Well ID:	1000420-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	2955 FOWLER AVE	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1000420-001&store_num=		
GeoTracker Data:	Not Reported		

D22
North
1/2 - 1 Mile
Higher

CA WELLS **11802**

Seq:	11802	Prim sta c:	13S/21E-15M01 M
Frds no:	1000420001	County:	10
District:	40	User id:	10C
System no:	1000420	Water type:	G
Source nam:	2955 FOWLER AVE	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364757.0	Longitude:	1194050.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1000420	System nam:	Jack & Jill'S Day Care
Hqname:	Not Reported	Address:	1030 GETTSBURG AVE
City:	CLOVIS	State:	CA
Zip:	93612	Zip ext:	Not Reported
Pop serv:	100	Connection:	2
Area serve:	Not Reported		

E23
SW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000022628**

Well ID:	1010007-280	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 055-2 - RAW	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-280&store_num=
GeoTracker Data: Not Reported

E24
SW
1/2 - 1 Mile
Lower

CA WELLS **CAPFAS000001256**

Well ID:	1010007-280	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 055-2 - RAW	GAMA PFAS Testing:	Yes

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-280&store_num=
GeoTracker Data: Not Reported

E25
SW
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00016002**

Well ID:	USGS-364646119412001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364646119412001	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364646119412001&store_num=
GeoTracker Data: Not Reported

E26
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000177609**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	013S021E21P001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19600506	Well Depth:	332
Well Depth Units:	ft	Well Hole Depth:	333
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-11-01
Feet below surface:	47.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

27
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000016066**

Well ID:	1010007-618	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 329 - INACTIVE	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-618&store_num=		
GeoTracker Data:	Not Reported		

E28
SW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000019599**

Well ID:	1010007-189	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 055-1 INACTIVE	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-189&store_num=		
GeoTracker Data:	Not Reported		

E29
SW
1/2 - 1 Mile
Lower

CA WELLS **CALLNL000000442**

Well ID:	101413	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	13S/21E-21P01 M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Argon	Results:	.000399597
Units:	cm3STP/g	Date:	04/14/2003
Chemical:	Helium-3/Helium-4	Results:	.00000218601
Units:	atom ratio	Date:	04/14/2003
Chemical:	Xenon	Results:	.0000000106611
Units:	cm3STP/g	Date:	04/14/2003
Chemical:	Neon	Results:	.000000275906
Units:	cm3STP/g	Date:	04/14/2003
Chemical:	Krypton	Results:	.0000000810912
Units:	cm3STP/g	Date:	04/14/2003

Chemical:	Helium-4	Results:	.0000000694345
Units:	cm3STP/g	Date:	04/14/2003
Chemical:	Tritium (Hydrogen 3)	Results:	22.16
Units:	pCi/L	Date:	05/15/2003

E30
SW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000030106**

Well ID:	13S21E21P001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	13S21E21P001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=13S21E21P001M&store_num=		
GeoTracker Data:	Not Reported		

E31
SW
1/2 - 1 Mile
Lower

CA WELLS **11822**

Seq:	11822	Prim sta c:	13S/21E-21P02 M
Frds no:	1010007280	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 055-02	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364646.0	Longitude:	1194126.0
Precision:	2	Status:	AU
Comment 1:	Not Reported	Comment 2:	5795 E. SHIELDS
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		
Sample date:	07-FEB-18	Finding:	2.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JAN-18	Finding:	2.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JAN-18	Finding:	0.269
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	26-JAN-18	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	25-JAN-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	2.4
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	25-JAN-17	Finding:	7.7
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	25-JAN-17	Finding:	29.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	12.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	24.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	110.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JAN-17	Finding:	170.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	340.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	2.e-003
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	0.13
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	25-JAN-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JAN-17	Finding:	3.1
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	25-JAN-17	Finding:	8.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	16-JUN-16	Finding:	5.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-JUN-15	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-MAR-15	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-NOV-14	Finding:	1.4
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	30-APR-14	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-APR-14	Finding:	0.35
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	2.6e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	30-APR-14	Finding:	13.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	30-APR-14	Finding:	8.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	2.
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	32.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	28.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	30-APR-14	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	380.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	30-APR-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	0.15
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	24-JUN-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUN-13	Finding:	0.311
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-13	Finding:	3.31
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	24-JUN-13	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-JUN-13	Finding:	0.331
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUN-13	Finding:	1.16
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

32
NW
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000001662**

Well ID:	1010003-031	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL T-05 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010003-031&store_num=		

GeoTracker Data: Not Reported

33
NNW
1/2 - 1 Mile
Higher

CA WELLS 11806

Seq:	11806	Prim sta c:	13S/21E-16Q01 M
Frds no:	1010003031	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL T-05	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	364800.0	Longitude:	1194100.0
Precision:	4	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

Sample date:	25-OCT-17	Finding:	7.3
Chemical:	PHOSPHATE (AS PO4)	Report units:	UG/L
Dlr:	0.		

Sample date:	13-SEP-17	Finding:	0.13
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	13-SEP-17	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	13-SEP-17	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	13-SEP-17	Finding:	7.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	13-SEP-17	Finding:	9.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	13-SEP-17	Finding:	20.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	13-SEP-17	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	13-SEP-17	Finding:	17.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	13-SEP-17	Finding:	88.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-17	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	100.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	270.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-SEP-17	Finding:	2.3
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.4
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.54
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.26
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	170.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.15
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	6.9
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	09-SEP-16	Finding:	8.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	19.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	16.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	85.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	94.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	260.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	98.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	3.
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	16-SEP-15	Finding:	90.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	18.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	7.9
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	8.5
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	16-SEP-15	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-SEP-15	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	160.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	10-SEP-14	Finding:	8.2
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	10-SEP-14	Finding:	7.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	96.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	88.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	18.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	10-SEP-14	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	2.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	12-SEP-13	Finding:	230.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	05-SEP-12	Finding:	3.3e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

34
North
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000011993**

Well ID:	1010003-072	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 40 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010003-072&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

35
West
1/2 - 1 Mile
Lower

CA WELLS **11819**

Seq:	11819	Prim sta c:	13S/21E-21E01 M
Frds no:	1010003021	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 19	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364717.0	Longitude:	1194142.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

36
West
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000000228**

Well ID:	1010003-021	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 19 -DESTROYED	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010003-021&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93727	20	0

Federal EPA Radon Zone for FRESNO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93727

Number of sites tested: 6

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.433 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix H

Krazan & ASSOCIATES, INC.

SITE DEVELOPMENT ENGINEERS

William H. Vick, Ph.D., REA

Environmental Project Manager

AREAS OF EXPERTISE

Phase I Environmental Site Assessments
Environmental Analytical Chemistry
Pollutant Fate and Effects
Site Characterization and Remediation
Physical Characterization of Construction Materials
Quality Assurance/Quality Control Programs

EDUCATION AND CERTIFICATIONS

Bachelor of Science in Molecular Biology
University of Texas - Dallas
Doctor of Philosophy in Environmental Sciences
University of Texas – Dallas
California Environmental Protection Agency
Department of Toxic Substances Control
Registered Environmental Assessor I No. 30165
Asbestos Building Inspector, Certification No. 3370
NICET Certified Construction Materials Testing
CalTrans Certified Construction Materials Testing

PROFESSIONAL AFFILIATIONS

Member, American Society for Testing Materials

RELEVANT PROFESSIONAL EXPERIENCE

2002 to Present

Senior Technical Staff, Krazan & Associates, Inc.
Environmental project manager responsible for design, conduct, and management of site investigations, including Phase I Environmental Site Assessments using state-of-the-art research methods, and surface and subsurface contaminant characterization. Additional responsibilities include direction and management of construction materials testing laboratory, including data review, compliance evaluation, and quality assurance/quality control programs.

1981 to 1987

Principal Investigator, Science Applications, Inc.
Responsible for the design, conduct, and management of environmental research programs for government clients. In this capacity, primary responsibilities included design of multidisciplinary research programs in response to environmental issues of national scope, technical and financial management, design and implementation of project-specific quality assurance/quality control programs, statistical data evaluation/interpretation and report preparation. Representative research programs include development of an analytical chemistry procedure for ultra trace-level analysis of dioxin, investigation of the chronic toxicity of crude

oil to selected marine species, an evaluation of physical encapsulation techniques for remediation of dioxin contaminated soils, and participation in the remedial investigation/feasibility study of the Stringfellow NPL Superfund hazardous waste site.

1979 to 1981

Graduate Research Assistant, University of Texas - Dallas
Responsible for the design and conduct of an EPA-funded research program to assess the effectiveness of activated carbon for removal of trace-level organic pollutants from industrial wastewater. Conducted on-site, pilot-scale technology evaluation, characterized pollutant breakthrough profiles, and evaluated system monitoring techniques. Responsible for QA/QC program and for all data analysis and interpretation.

1977 to 1979

Environmental Chemistry Analyst, Texas Instruments, Inc.
Responsible for analysis of environmental samples for trace-level organic contaminants using mass spectrometry and gas chromatography. As senior analyst on evening shift, responsible for review, interpretation, and management of all data generated.

Krazan & ASSOCIATES, INC.

SITE DEVELOPMENT ENGINEERS

Art Farkas, R.E.A.

Vice President
Environmental Division

AREAS OF EXPERTISE

Project Management and Oversight
Senior Quality Control Review
Staff Development
Information Management
Marketing, Public Relations and Publicity

EDUCATION AND ACCOMPLISHMENTS

California Environmental Protection Agency
Department of Toxic Substances Control
Registered Environmental Assessor I No. 07818
Bachelor of Electronic Engineering Technology,
University of Dayton, Ohio
CEQA Training: University of California Davis Extension
NEPA Training: U.S. Department of Housing and Urban Development Region 9, San Francisco

PROFESSIONAL EXPERIENCE

February 1998 to Present

Vice President, Krazan & Associates, Inc., Environmental Division
CEQA and NEPA project management specialist. Project Manager and senior quality control reviewer for Phase I and Phase II Environmental Site Assessments. Activities include division oversight, business development, regional coordination of technical services and delivery of efficient integrated site development engineering services in conjunction with the Geotechnical and Construction Testing and Inspection Divisions of the firm

Dec. 1994 to Feb. 1998

Executive Director, Downtown Association of Fresno
Responsibilities included management of business association for Central Business District of Fresno; Director of the Fresno Main Street Program; project operations and promotions management; policy formation, budgeting; marketing, public relations; publicity, fundraising and public speaking; management of 18-member Board of Directors for non-profit organization.

Apr. 1974 to Dec. 1994

Operations Manager/Program Director/Air Personality: Radio Broadcasting

1974 - 1980 KFIG	1981 - 1991 KKDJ
1980 - 1981 KIOY	1991 - 1994 KTHT

Responsibilities included operations management of staff and systems; program direction; on-air performance; production' promotions' public affairs and marketing.

ACOUSTICAL ANALYSIS

TRACT 6374
FRESNO, CALIFORNIA

WJVA Project No. 21-60

PREPARED FOR

LENNAR CENTRAL VALLEY CALLIFORNIA
8080 NORTH PALM AVENUE, SUITE 110
FRESNO, CALIFORNIA 93711

PREPARED BY

WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA

wjv acoustics

DECEMBER 7, 2021

INTRODUCTION

The project is a proposed 145-lot single-family residential development to be located in Fresno, California. The project site is located adjacent to and north of E. Dakota Avenue, approximately 750 feet east of N. Fowler Avenue, in the City of Fresno. The City of Fresno has requested an acoustical analysis to quantify project site noise exposure and determine noise mitigation requirements. This analysis, prepared by WJV Acoustics, Inc. (WJVA), is based upon a project site plan prepared by Yamabe & Horn Engineering, Inc. (dated May 27, 2021), traffic data provided by the Fresno Council of Governments (Fresno COG) and the findings of on-site noise level measurements. Revisions to the site plan may affect the findings and recommendations of this report. The site plan is provided as Figure 1.

Appendix A provides a description of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported are in A-weighted decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighting, as it provides a high degree of correlation with human annoyance and health effects. Appendix B provides typical A-weighted sound levels for common noise sources.

NOISE EXPOSURE CRITERIA

General Plan

The City of Fresno General Plan Noise Element provides noise level criteria for land use compatibility for both transportation and non-transportation noise sources. The General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (L_{dn}). The L_{dn} represents the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. Table I provides the General Plan noise level standards for transportation noise sources.

TABLE I

CITY OF FRESNO GENERAL PLAN NOISE LEVEL STANDARDS
TRANSPORTATION (NON-AIRCRAFT) NOISE SOURCES

Noise-Sensitive Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq} dB[2]
Residential	65	45	---
Transient Lodging	65	45	---
Hospitals, Nursing Homes	65	45	---
Theaters, Auditoriums, Music Halls	---	---	35
Churches, Meeting Halls	65	---	45
Office Buildings	---	---	45
Schools, Libraries, Museums	---	---	45

1 Where the location of the outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.

2 As determined for a typical worst-case hour during periods of use.

Source: City of Fresno General Plan

Implementation Policy NS-1-a of the General Plan provides guidance in regards to the development of new noise sensitive land uses (including residential developments).

> ***Desirable and Generally Acceptable Exterior Noise Environment.*** *Establish 65 dBA L_{dn} or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA L_{dn} or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise- sensitive uses. Maintain 65 dBA L_{dn} or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA L_{dn} or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.*

The General Plan also provides noise level standards for non-transportation (stationary) noise

sources. The General Plan noise level standards for non-transportation noise sources are identical to those provided in the City's Municipal code, provided below in Table II.

Implementation Policy NS-1-i of the General Plan Noise Element provides guidance in regards to mitigation for new developments and projects that have potential to result in a noise-related impact at existing noise-sensitive land uses.

> ***Mitigation by New Development.*** *Require an acoustical analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by [Table I] and [Table II] to determine impacts, and require developers to mitigate these impacts in conformance with Tables 9-2 and 9-3 as a condition of permit approval through appropriate means.*
>
> *Noise mitigation measures may include:*
>
> - *The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment;*
> - *Providing increased setbacks for noise sources from adjacent dwellings;*
> - *Installation of walls and landscaping that serve as noise buffers;*
> - *Installation of soundproofing materials and double-glazed windows; and*
> - *Regulating operations, such as hours of operation, including deliveries and trash pickup.*
>
> *Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified Acoustical Consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.*

Implementation Policy NS-1-j of the General Plan Noise Element provides guidance in regards to the establishment of a significance threshold when determining an increase in noise levels over existing ambient noise levels.

> ***Significance Threshold.*** *Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3*

dB L_{dn} or CNEL or more above the ambient noise limits established in this General Plan Update.

Commentary: When an increase in noise would result in a "significant" impact (increase of three dBA or more) to residents or businesses, then noise mitigation would be required to reduce noise exposure. If the increase in noise is less than three dBA, then the noise impact is considered insignificant and no noise mitigation is needed. By setting a specific threshold of significance in the General Plan, this policy facilitates making a determination of environmental impact, as required by the California Environmental Quality Act. It helps the City determine whether (1) the potential impact of a development project on the noise environment warrants mitigation, or (2) a statement of overriding considerations will be required.

Municipal Code

Section 15-2506 of the City of Fresno Municipal code establishes hourly acoustical performance standards for non-transportation noise sources. The standards, provided in Table II, are made more restrictive during the nighttime hours of 10:00 p.m. to 7:00 a.m. Additionally, the municipal code states that when ambient noise levels exceed or equal the levels described in Table II, mitigation shall only be required to limit noise to the existing ambient noise levels, plus five (5) dB. Section 15-2506 of the Municipal Code is consistent with Implementing Policy NS-1-I of the Noise Element of the City of Fresno General Plan (adopted 12/18/14).

TABLE II

NON-TRANSPORTATION NOISE LEVEL STANDARDS, dBA
CITY OF FRESNO MUNICIPAL CODE, SECTION 15-2506

Daytime (7 a.m.-10 p.m.)		Nighttime (10 p.m.-7 a.m.)	
L_{eq}	L_{max}	L_{eq}	L_{max}
50	70	45	60

Source: City of Fresno Municipal Code

Additional guidance is provided in Section 10-102(b) of the City's Municipal Code. Section 10 provides existing ambient noise levels to be applied to various districts, further divided into various hours of the day. Table III describes the assumed minimum ambient noise levels by district and time. Section 10-102(b) states *"For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than that designated in this section, however, the noise level specified herein shall be deemed to be the ambient noise level for that location".*

TABLE III

ASSUMED MINIMUM AMBIENT NOISE LEVEL, dBA
CITY OF FRESNO MUNICIPAL CODE, SECTION 10-102(B)

DISTRICT	TIME	SOUND LEVEL, dB L_{eq}
RESIDENTIAL	10 PM TO 7 AM	50
RESIDENTIAL	7 PM TO 10 PM	55
RESIDENTIAL	7 AM TO 7 PM	60
COMMERCIAL	10 PM TO 7 AM	60
COMMERCIAL	7 AM TO 10 PM	65
INDUSTRIAL	ANYTIME	70

Source: City of Fresno Municipal Code

Section 10-106 (Prima Facie Violation) States *"Any noise or sound exceeding the ambient noise level at the properly line of any person offended thereby, or, if a condominium or apartment house, within any adjoining living unit, by more than five decibels shall be deemed to prima facie evidence of a violation of Section 8-305."*

For noise sources that are not transportation related, which usually includes commercial or industrial activities and other stationary noise sources (such as amplified music), it is common to assume that a 3-5 dB increase in noise levels represents a substantial increase in ambient noise levels. This is based on laboratory tests that indicate that a 3 dB increase is the minimum change perceptible to most people, and a 5 dB increase is perceived as a "definitely noticeable change."

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides typical A-weighted sound levels for common noise sources.

PROJECT SITE NOISE EXPOSURE

The project site is located adjacent to and north of E. Dakota Avenue, approximately 750 feet east of N. Fowler Avenue, in the City of Fresno. The project site is exposed traffic noise associated with vehicles on E. Dakota Avenue. The distance from center of the backyards of the closest proposed lots to the centerline of E. Dakota Avenue is approximately 65 feet.

Traffic Noise Exposure

Noise exposure from traffic on E. Dakota Avenue was calculated for existing and future (2035) conditions using the FHWA Traffic Noise Model and traffic data obtained from Fresno COG. A description of the noise model, applied data, methodology and findings is provided below.

WJVA utilized the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ±1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Noise level measurements and concurrent traffic counts were conducted by WJVA staff within the project site on November 24, 2021. The purpose of the measurement was to evaluate the accuracy of the FHWA Model in describing traffic noise exposure within the project site. The traffic noise measurement site was located at a distance of approximately 35 feet from the centerline of E. Dakota Avenue. The speed limit was assumed to be 35 mph (miles per hour). The project vicinity and noise monitoring site location are provided as Figure 2. A photograph showing the E. Dakota Avenue noise measurement site is provided as Figure 3.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated in the field prior to use with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements. The microphone was located on a tripod at 5 feet above the ground. The project site presently consists of undeveloped land and a portion is currently used for industrial purposes.

Noise measurements were conducted in terms of the equivalent energy sound level (L_{eq}). Measured L_{eq} values were compared to L_{eq} values calculated (predicted) by the FHWA Model using as inputs the traffic volumes, truck mix and vehicle speed observed during the noise measurements. The results of the comparison are shown in Table IV.

From Table IV it may be determined that the traffic noise levels predicted by the FHWA Model were 0.3 dB lower than those measured for the conditions observed at the time of the noise measurements for E. Dakota Avenue. This is considered to be excellent agreement with the model and therefore no adjustments to the model are necessary.

TABLE IV

COMPARISON OF MEASURED AND PREDICTED (FHWA MODEL) NOISE LEVELS TRACT 6374 FRESNO

	E. Dakota Avenue
Measurement Start Time	12:50 p.m.
Observed # Autos/Hr.	60
Observed # Medium Trucks/Hr.	12
Observed # Heavy Trucks/Hr.	0
Observed Speed (MPH)	35
Distance, ft. (from center of roadway)	35
L_{eq}, dBA (Measured)	58.1
L_{eq}, dBA (Predicted)	57.8
Difference between Predicted and Measured L_{eq}, dBA	**-0.3**

Note: FHWA "soft" site assumed for calculations.
Source: WJV Acoustics, Inc.

Annual Average Daily Traffic (AADT) data for E. Dakota Avenue in the project vicinity was obtained from Fresno COG. Truck percentages and the day/night distribution of traffic were estimated by WJVA, based upon previous studies conducted in the project vicinity since project-specific data were not available from government sources. A speed limit of 35 mph was assumed for the roadway. Table V summarizes annual average traffic data used to model noise exposure within the project site.

TABLE V

TRAFFIC NOISE MODELING ASSUMPTIONS TRACT 6374, FRESNO

	E. Dakota Avenue	
	Existing	2035
Annual Avenue Daily Traffic (AADT)	2,517	2,478
Day/Night Split (%)	90/10	
Assumed Vehicle Speed (mph)	55	
% Medium Trucks (% AADT)	2	
% Heavy Trucks (% AADT)	1	

Sources: Fresno COG
WJV Acoustics, Inc.

Using data from Table V, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from E. Dakota Avenue. Table VI provides the noise exposure levels for E. Dakota Avenue, at the closest proposed residential lots to the roadway.

TABLE VI

MODELED TRAFFIC NOISE LEVELS, E. DAKOTA AVENUE, dB, L_{dn}
TRACT 6374, FRESNO

Roadway	Existing Conditions	2035 Conditions
E. Dakota Avenue (south of Alicante Avenue)	56.5	56.5

Source: WJV Acoustics
Fresno COG

Reference to Table VI indicates that the traffic noise exposure at the closest lots to E. Dakota Avenue would be approximately 57 dB L_{dn} for both existing and future (2035) traffic conditions on E. Dakota Avenue. Such noise exposure levels do not exceed the City's 65 dB L_{dn} exterior noise level standard, and mitigation is not required for project compliance with the applicable City of Fresno exterior noise level standards.

Interior Noise Exposure:

The City of Fresno interior noise level standard is 45 dB L_{dn}. The worst-case noise exposure within the proposed residential development would be approximately 57 dB L_{dn} (existing and 2035 traffic conditions). This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 12 dB (57-45=12).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB L_{dn} interior standard at all proposed lots. Requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

CONCLUSIONS AND RECOMMENDATIONS

The proposed 145-lot single-family residential development will comply with all City of Fresno exterior and interior noise level standards, without the need for further mitigation measures, provided that air conditioning or mechanical ventilation is incorporated into final project design.

The conclusions and recommendations of this acoustical analysis are based upon the best information known to WJV Acoustics Inc. (WJVA) at the time the analysis was prepared concerning the proposed lot layout plan, project site elevation, traffic volumes and roadway configurations. Any significant changes in these factors will require a reevaluation of the findings of this report. Additionally, any significant future changes in motor vehicle technology, noise regulations or other factors beyond WJVA's control may result in long-term noise results different from those described by this analysis.

Respectfully submitted,

Walter J. Van Groningen
President

WJV:wjv

FIGURE 1: SITE PLAN

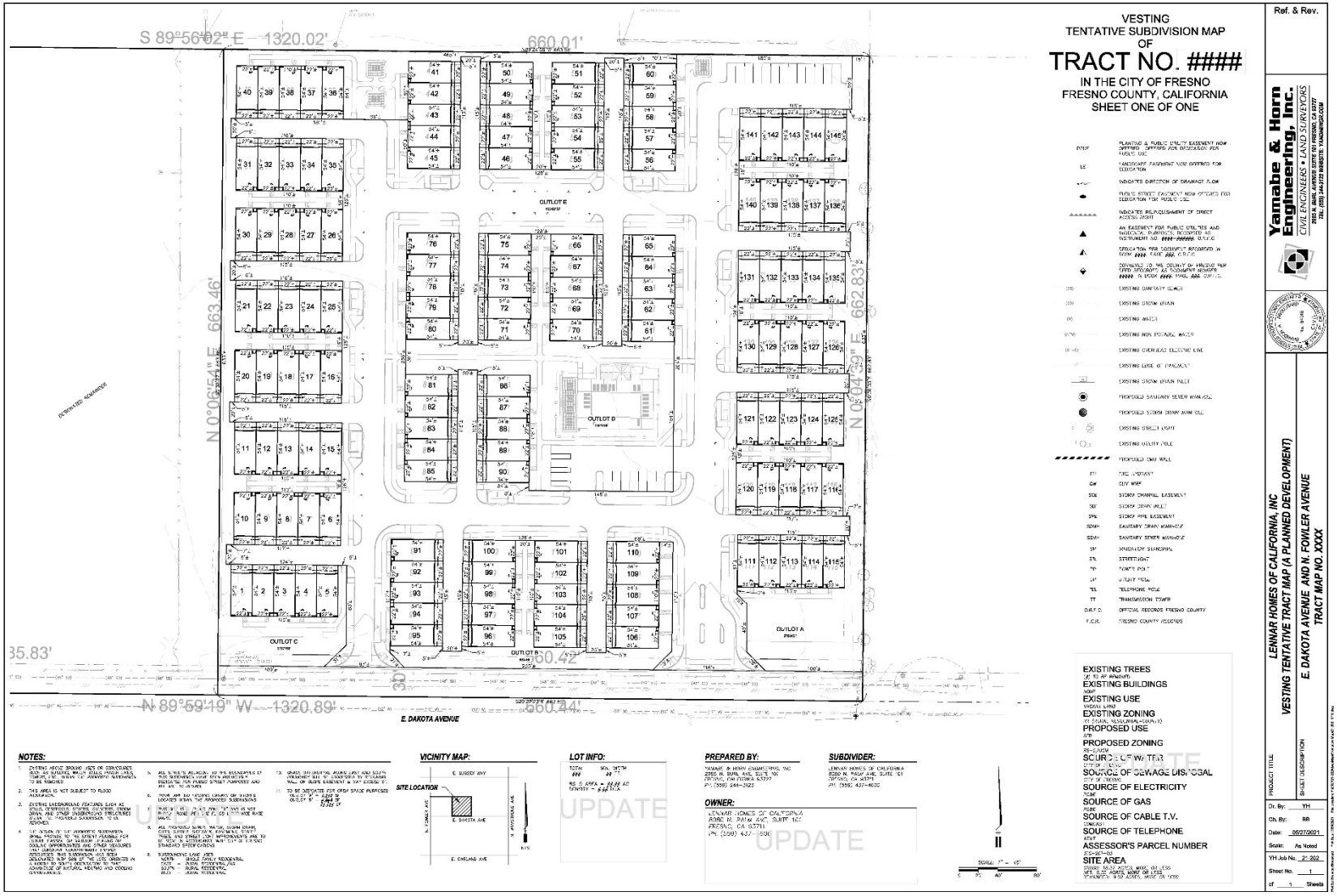


FIGURE 2: PROJECT SITE VICINITY AND NOISE MEASUREMENT LOCATION

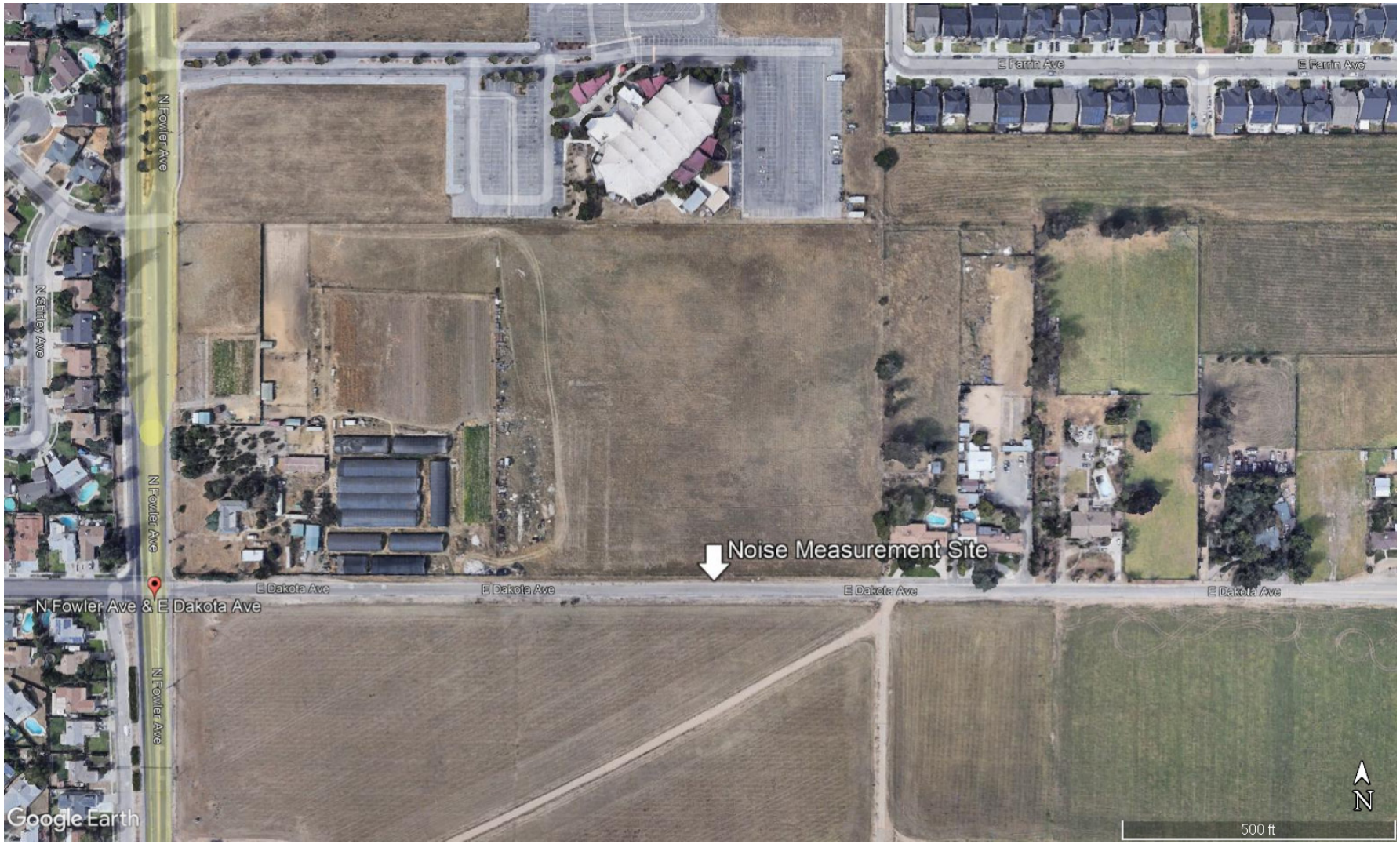


FIGURE 3: E. DAKOTA AVENUE NOISE MEASUREMENT SITE

APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/L_{dn}: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L_{90}, L_{50}, L_{10}, etc.). For example, L_{10} equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

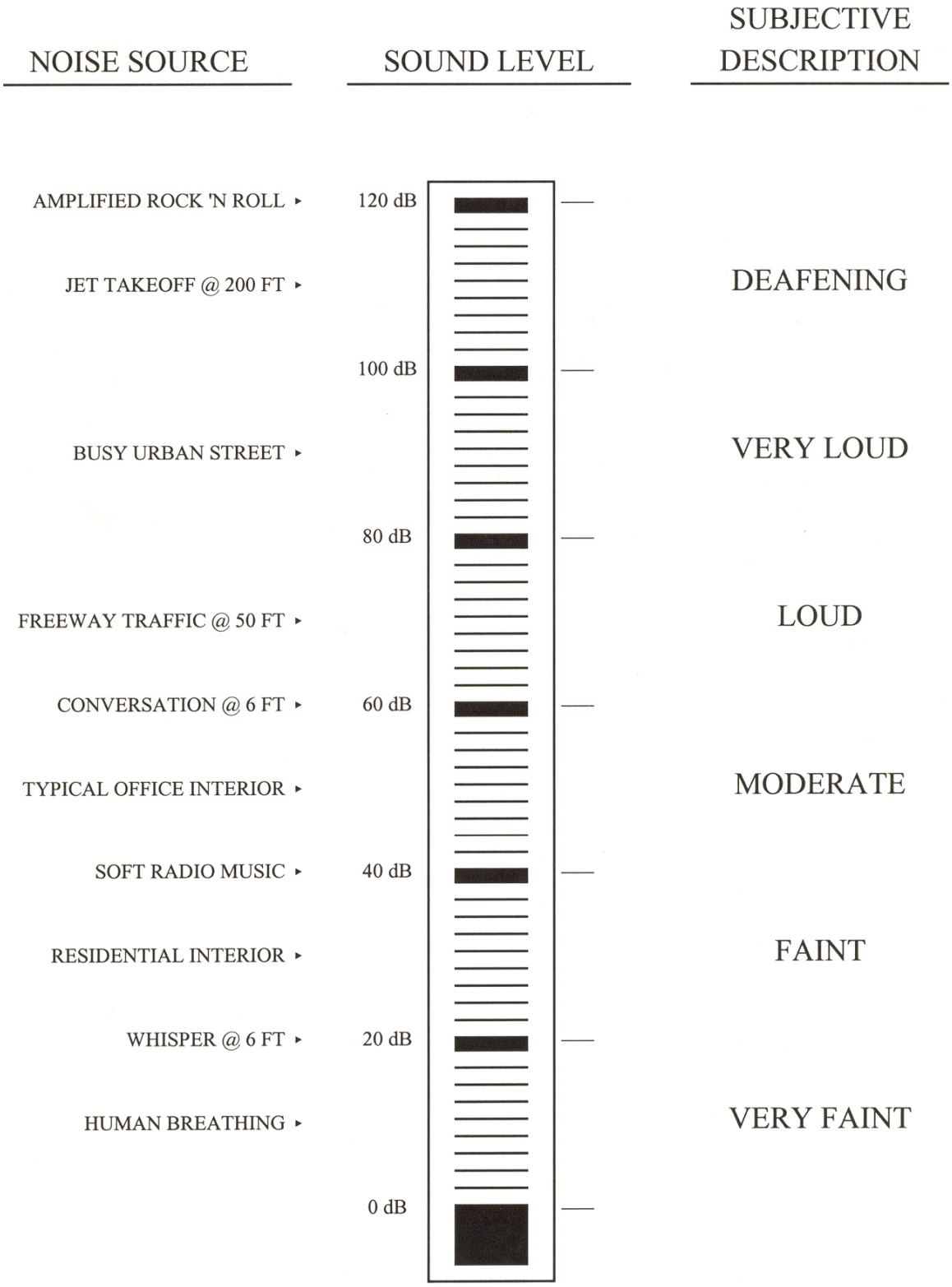
NOISE LEVEL REDUCTION (NLR): The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC): The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B
EXAMPLES OF SOUND LEVELS



DRAFT

Tract 6374 Residential Development

Transportation Impact Analysis
February 24, 2022

Prepared by:
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Tract 6374 Residential Development
Transportation Impact Study

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Table of Contents

Section	Description	Page
1.0	Introduction	1
1.1	Description of the Region/Project	1
1.1.1	Project Access	1
1.1.2	Study Area	1
1.1.3	Study Scenarios	1
1.2	Methodology	2
1.2.1	Intersection Analysis	2
1.2.2	Roadway Segment Analysis	8
1.3	Policies to Maintain Level of Service	8
1.4	VMT Analysis	10
2.0	Existing Conditions	11
2.1	Existing Traffic Counts and Roadway Geometrics	11
2.2	Existing Functional Roadway Classification System	11
2.3	Affected Streets and Highways	12
2.4	Level of Service	12
2.4.1	Intersection Capacity Analysis	12
2.4.2	Queuing Analysis	13
2.4.3	Roadway Segment Capacity Analysis	13
2.5	Study Area Collision Data	19
3.0	Traffic Impacts	21
3.1	Trip Generation	21
3.2	Trip Distribution	21
3.3	Project Traffic	21
3.4	Existing Plus Project Traffic Conditions	21
3.5	Approved Pending Project Traffic	27
3.6	Near-Term Traffic Conditions	28
3.7	Cumulative Year 2042 Without Project Traffic Conditions	28
3.8	Cumulative Year 2042 Plus Project Traffic Conditions	28
3.9	Impacts	28
3.9.1	Intersection Capacity Analysis	28
4.0	Mitigation	40
4.1	Recommended Improvements	40
4.2	Equitable Share Responsibility	43

Appendices

Appendix A – General Plan and Development Code Update
Appendix B – Traffic Counts
Appendix C – Capacity Analysis Worksheets
Appendix D – Collision Data Worksheets
Appendix E – 2042 Future Year Loaded Network
Appendix F – VMT Analysis

List of Tables

1-1	Signalized Intersection Level of Service Definitions	6
1-2	Unsignalized Intersection Level of Service Definitions	7
1-3	Roadway Segment Level of Service Definitions	9
1-4	Peak Hour Two-Way Volumes	10
2-1	Existing Intersection Operations	17
2-2	Existing Queuing Operations	18
2-3	Existing Segment Operations	19
3-1	Project Trip Generation	21
3-2	Approved /Pending Project Trip Generation	29
3-3	Intersection Operations	38
3-4	Queuing Operations	39
3-5	Segment Operation	39
4-1	Intersection Operations with Mitigation	41
4-2	Left Turn and Right Turn Storage Requirements	43
4-3	Traffic Signal Mitigation Fee	43
4-4	Equitable Share Responsibility	44

List of Figures

1-1	Regional Location	3
1-2	Project Location	4
1-3	Project Site Plan	5
2-1	Existing Lane Geometry	14
2-2	Existing AM Peak Hour Traffic	15
2-3	Existing PM Peak Hour Traffic	16
2-4	Study Area Collision Map	20
3-1	Project Trip Distribution	22
3-2	Project AM Peak Hour Traffic	23
3-3	Project PM Peak Hour Traffic	24
3-4	Existing Plus Project AM Peak Hour Traffic	25
3-5	Existing Plus Project PM Peak Hour Traffic	26
3-6	Near term Project Trip AM Peak Traffic Count	30
3-7	Near term Project Trip PM Peak Traffic Count	31

List of Figures (cont.)

3-8	Near-Term (Opening Year) With AM Peak Hour Traffic Count	32
3-9	Near-Term (Opening Year) With PM Peak Hour Traffic Count	33
3-10	Cumulative Year 2042 Without Project AM Peak Hour Traffic	34
3-11	Cumulative Year 2042 Without Project PM Peak Hour Traffic	35
3-12	Cumulative Year 2042 With Project AM Peak Hour Traffic	36
3-11	Cumulative Year 2042 With Project PM Peak Hour Traffic	37
4-1	Cumulative Year 2042 Lane Geometry	42

1.0 Introduction

1.1 Description of the Region/Project

This Traffic Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the Tract 6374 Development (Project). The Project proposes to build 145 single-family residential lots on approximately 10.05 acres, which is approximately 14.42 dwelling units per acre. The Project is located along Dakota Avenue between Fowler Avenue and Armstrong Avenue. The Project is located on the valley floor at an elevation of approximately 308 feet above sea level with the surrounding area mostly flat. The City of Fresno is in the center of the San Joaquin Valley, located approximately 220 miles northwest of the City of Los Angeles and 170 miles south of the City of Sacramento. Figures 1-1 and 1-2 show the location of the Project along with major roadways in the Project area. The Project site plan is provided in Figure 1-3.

1.1.1 *Project Access*

Site access will be provided at two Project Driveways along Dakota Avenue between Fowler Avenue and Armstrong Avenue.

1.1.2 *Study Area*

The following intersections and roadway segments included in this TIS were determined in consultation with City of Fresno staff and include:

Intersections

- ✓ Ashlan Avenue and Fowler Avenue
- ✓ Dakota Avenue and Fowler Avenue
- ✓ Shields Avenue and Fowler Avenue
- ✓ Dakota Avenue and West Project Access
- ✓ Dakota Avenue and East Project Access

Roadway Segments

- ✓ Fowler Avenue between:
  - Ashlan Avenue and Dakota Avenue
  - Dakota Avenue and Shields Avenue

1.1.3 *Study Scenarios*

The TIS completed for the Project includes level of service (LOS) analysis for the following traffic scenarios:

- ✓ Existing Conditions
- ✓ Existing Plus Project
- ✓ Near-Term (Opening Year) With Project
- ✓ Cumulative Year 2042 Without Project
- ✓ Cumulative Year 2042 Plus Project

1.2 Methodology

When preparing this TIS, guidelines set by the City of Fresno were followed. In analyzing street and intersection capacities, LOS methodologies from the Highway Capacity Manual (HCM) 6th Edition were applied. The City of Fresno LOS standards were applied to quantitatively assess the performance of study area intersections and roadway segments. In addition, safety concerns were considered when determining the need for appropriate mitigation resulting from increased traffic near sensitive uses.

1.2.1 *Intersection Analysis*

Intersection LOS analysis was conducted using the Synchro 10 software program. Synchro 10 supports the Highway Capacity Manual (HCM) 6th Edition methodologies and is an acceptable program by City of Fresno staff for assessment of traffic impacts. Levels of service can be determined for both signalized and unsignalized intersections. There are two (2) signalized intersections in the study area and one (1) unsignalized intersection. It should be noted that the Fowler Avenue and Dakota Avenue intersections currently operates as an all-way stop.

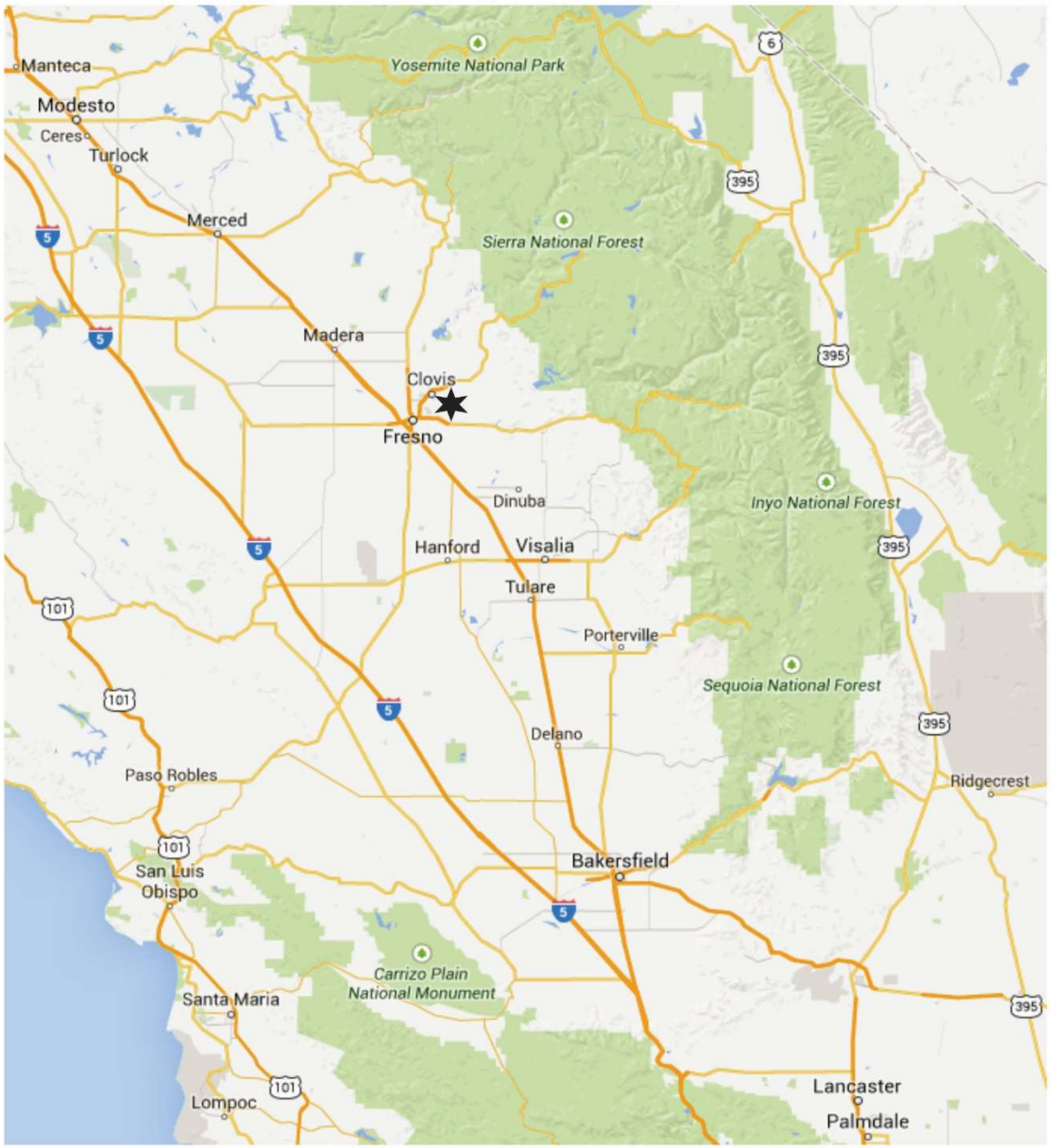
Tables 1-1 and 1-2 indicate the ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for the various levels of service ranging from LOS "A" to "F".

The signalized LOS standards applied to calculate intersection LOS are in accordance with the current edition of the Highway Capacity Manual (HCM). Intersection turning movement counts and roadway geometrics used to develop LOS calculations were obtained from field review findings and count data provided from the traffic count sources identified in Section 2.1.

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal shall be evaluated. The California Manual on Uniform Traffic Control Devices for Streets and Highways (California MUTCD) introduces standards for determining the need for traffic signals. The California MUTCD indicates that the satisfaction of one or more traffic signal warrants does not in itself require the installation of a traffic signal. In addition to the warrant analysis, an engineering study of the current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal is justified. The California MUTCD Peak Hour Warrant (Warrant 3) was used to determine if a traffic signal is warranted at unsignalized intersections that fall below current LOS standards.

Tract 6374 Residential Development
Regional Location

Figure 1-1



LEGEND

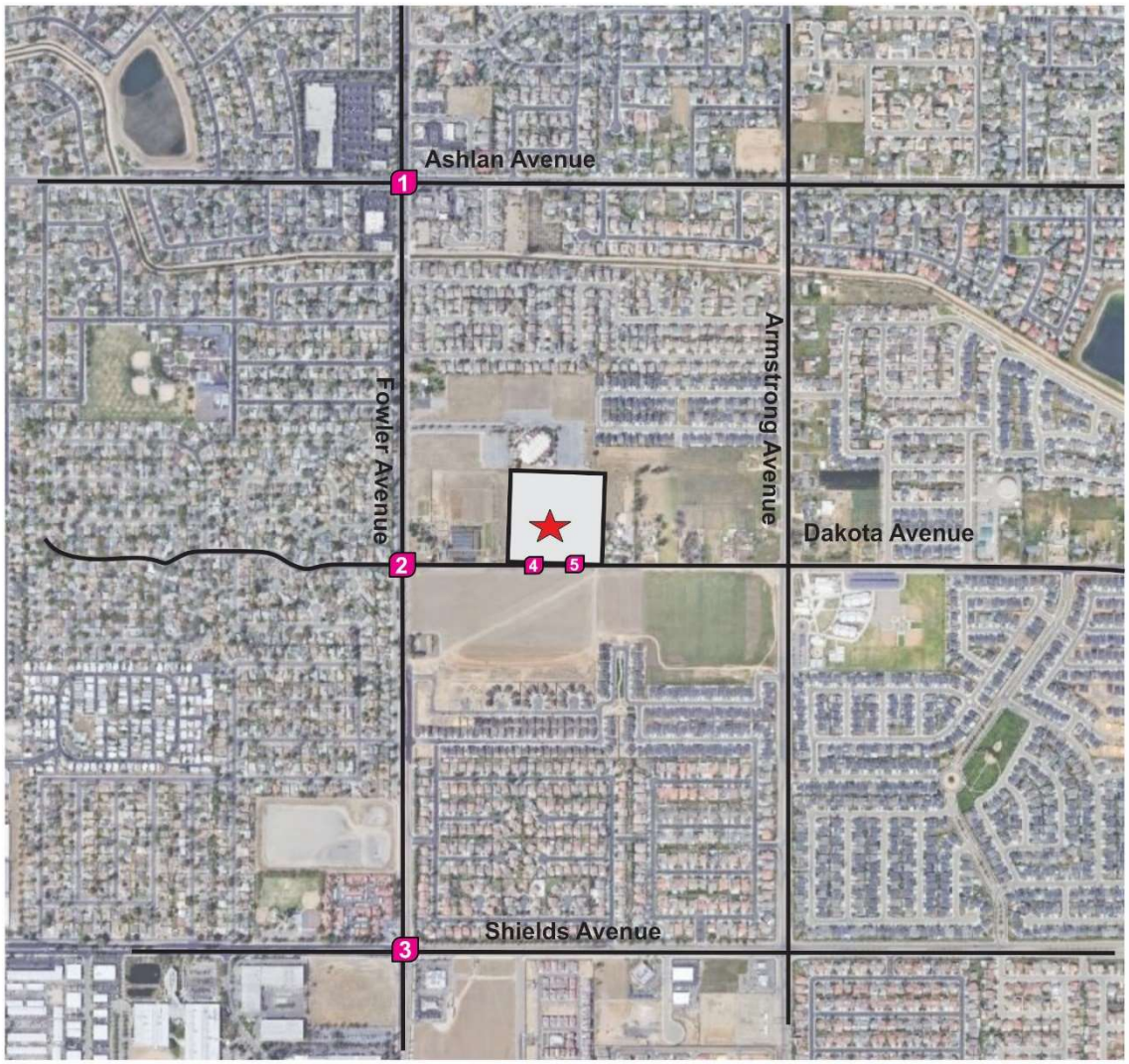
★ Project Location

North

VRPA TECHNOLOGIES, INC.

Tract 6374 Residential Development
Project Location

Figure 1-2



Tract 6374 Residential Development
Project Site Plan

Exhibit 1-3

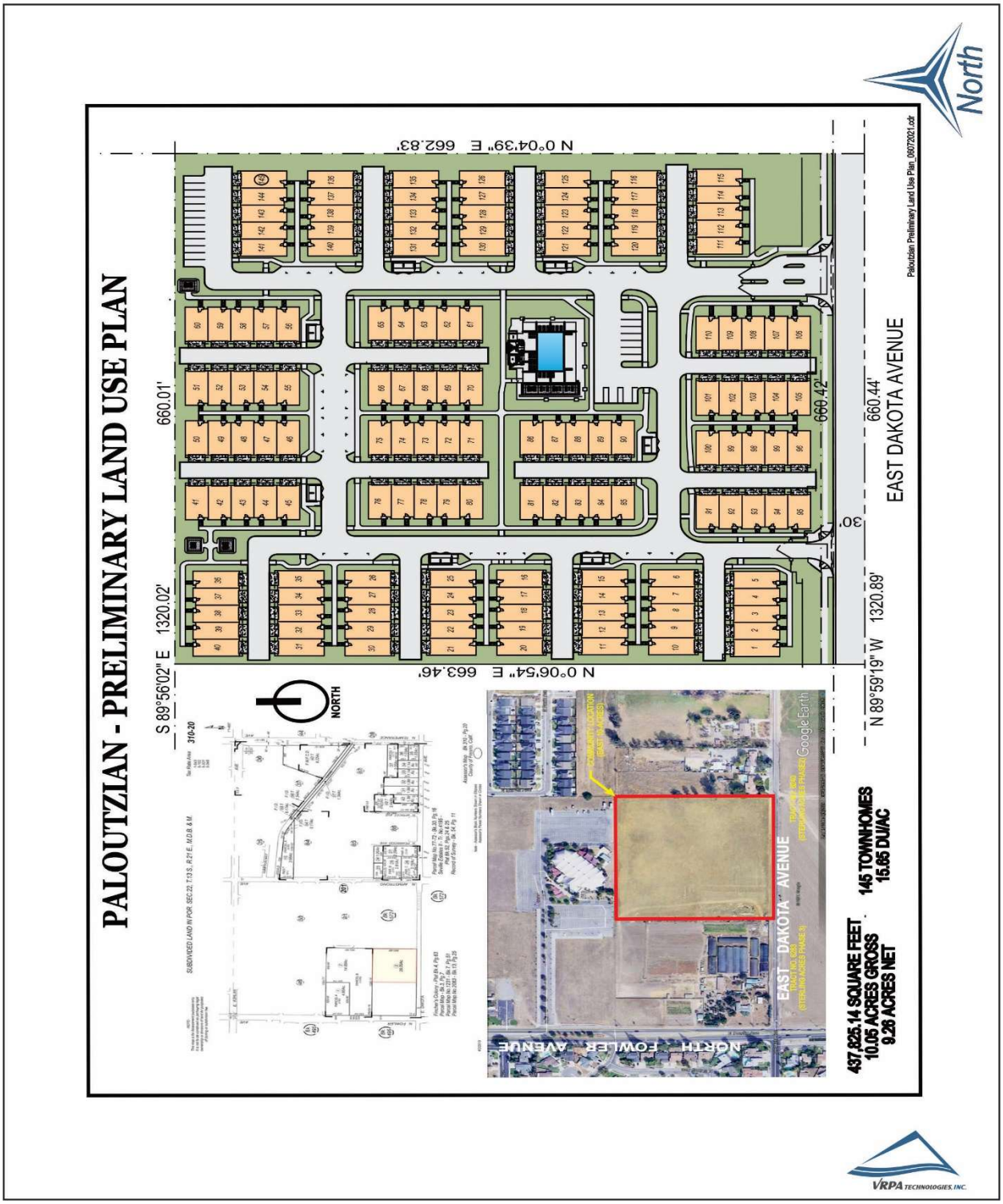


Table 1-1
Signalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

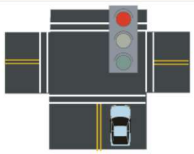
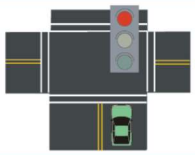
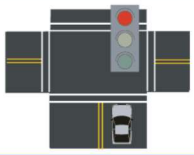
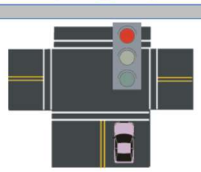
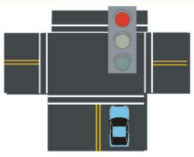
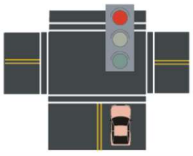
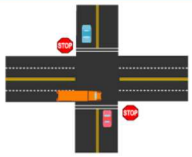
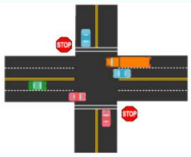
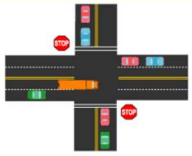
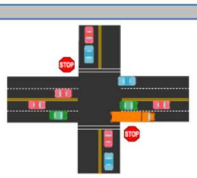
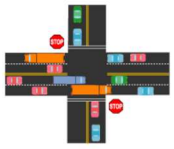
LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for a minor street.		≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.		> 10.0 - 20.0
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.		> 20.0 - 35.0
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.		> 35.0 - 55.0
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.		> 55.0 - 80.0
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over- saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist to allow minor traffic to cross the intersection safely.		> 80.0

Table 1-2
Unsignalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION	AVERAGE TOTAL DELAY (sec/veh)
A	No delay for stop-controlled approaches. 	0 - 10.0
B	Describes operations with minor delay. 	> 10.0 - 15.0
C	Describes operations with moderate delays. 	> 15.0 - 25.0
D	Describes operations with some delays.	> 25.0 - 35.0
E	Describes operations with high delays and long queues. 	> 35.0 - 50.0
F	Describes operations with extreme congestion, with very high delays and long queues unacceptable to most drivers. 	> 50.0

1.2.2 *Roadway Segment Analysis*

According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections.

Segment LOS is important in order to understand whether the capacity of a roadway can accommodate future traffic volumes. Table 1-3 provides a definition of segment LOS. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using Table 5.14-2 (Roadway Functional Class and Peak Hour Level-of-Service Thresholds) from the City of Fresno General Plan and Development Code Update Master Environmental Impact Report. The tables consider the capacity of individual road and highway segments. Street segment capacity was determined using information shown in Table 1-4 based on the Level of Service Tables included in Appendix A.

1.3 Policies to Maintain Level of Service

An important goal is to maintain acceptable levels of service along the highway, street, and road network. To accomplish this, the City of Fresno adopted minimum levels of service in an attempt to control congestion that may result as new development occurs.

The City of Fresno's General Plan (Adopted December 18, 2014), policy number MT-1-n, identifies a peak hour LOS standard of D or better for all roadway areas outside of identified Activity Center and Bus Rapid Transit Corridor districts, unless the City Traffic Engineer determines that mitigation to maintain this LOS would be infeasible and/or conflict with the achievement of other General Plan policies.

Table 1-3
Roadway Segment
Level of Service Definitions
(Highway Capacity Manual)

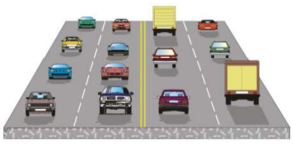
LEVEL OF SERVICE	DEFINITION	
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.	
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.	
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.	
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.	
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.	
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.	

Table 1-4
Peak Hour Two-Way Volumes

Level of Service					
Lanes	Divided	B	C	D	E
City Arterial					
2	Undivided	*	340	1,270	1,480
4	Undivided	*	770	2,740	2,980
4	Divided	*	1,000	3,470	3,730

*LOS is not achievable because of the type of facility

1.4 VMT Analysis

Senate Bill 743 (SB 743) went into effect throughout California on July 1, 2020. This legislation changed the performance measure for CEQA transportation studies from level of service to vehicle miles traveled (VMT). An assessment of potential VMT impacts associated with the Project is provided in Chapter 3 to address changes in CEQA requirements.

2.0 Existing Conditions

2.1 Existing Traffic Counts and Roadway Geometrics

The first step toward assessing Project traffic impacts is to assess existing traffic conditions. Existing AM and PM peak hour turning movements were collected at each study intersection by National Data and Surveying Services. Intersection turning movement counts were conducted for the peak hour periods of 7:00-9:00 AM and 4:00-6:00 PM for all study intersections on Wednesday, December 15, 2021. Traffic count data worksheets are provided in Appendix B.

2.2 Existing Functional Roadway Classification System

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.

The current hierarchical system of roadways consists of the following six (6) basic classifications:

- ✓ **Freeways** – Limited-access facilities designed for high-speed regional mobility. Freeways may include up to eight lanes (four lanes in each direction).
- ✓ **Expressways** – are high-speed, two- to six-lane divided roadways, primarily servicing through and cross-town traffic, with no direct access to abutting property and at-grade intersections located at approximately half-mile intervals. Expressways do not presently exist within the study area.
- ✓ **Super Arterials** – Four-to six-lane divided roadways with a primary purpose of moving traffic to and from major traffic generators and between community plan areas. Access will typically be limited to right-turn entrance and exit vehicular movements. Super Arterials do not presently exist within the study area.
- ✓ **Arterial** – Four- to six-lane divided roadways, with somewhat limited access to abutting properties, and with the primary purpose of moving traffic within and between community plan areas and to and from freeways and expressways.
- ✓ **Collectors** – Two to four-lane undivided roadways, with the primary function of connecting local streets and arterials and neighborhood traffic generators and providing access to abutting properties.
- ✓ **Local Streets** – Two- to three-lane public or private roadways designed to provide direct access to properties while discouraging through traffic between major streets. They are intended to carry low volumes of traffic and support unrestricted on-street parking.

2.3 Affected Streets and Highways

Street and highway intersections and segments near and adjacent to the Project site were analyzed to determine levels of service utilizing HCM-based methodologies described previously. The study intersections and street and highway segments included in this TIS are listed below. Counts were taken on Wednesday, December 15, 2021.

Intersections

- ✓ Ashlan Avenue and Fowler Avenue
- ✓ Dakota Avenue and Fowler Avenue
- ✓ Shields Avenue and Fowler Avenue
- ✓ Dakota Avenue and West Project Access
- ✓ Dakota Avenue and East Project Access

Roadway Segments

- ✓ Fowler Avenue between:
  - Ashlan Avenue and Dakota Avenue
  - Dakota Avenue and Shields Avenue

The existing lane geometry at study area intersections is shown in Figure 2-1. There are two (2) signalized intersections in the study area and one (1) unsignalized intersection. Figures 2-2 and 2-3 show existing traffic volumes for the AM and PM peak hours in the study area.

2.4 Level of Service

2.4.1 *Intersection Capacity Analysis*

All intersection LOS analyses were estimated using Synchro 10 Software. Various roadway geometrics, traffic volumes, and properties (peak hour factors, storage pocket length, etc.) were input into the Synchro 10 Software program in order to accurately determine the travel delay and LOS for each study scenario. The intersection LOS and delays reported represent the HCM 6th Edition outputs. Synchro assumptions, listed below, show the various Synchro inputs and methodologies used in the analysis.

- ✓ **Lane Geometry**
  - Storage lengths for turn lanes for existing intersections were obtained from aerial photos and rounded to the nearest 25 feet

- ✓ **Traffic Conditions**
  - Peak hour factors (PHF) for each intersection approach were obtained from the traffic counts discussed in Section 2.3 and were utilized for Existing Conditions, Existing Plus Project, and Near-term (Opening Year) Conditions. For all future scenarios, a PHF of 0.92

will be applied

- Heavy vehicle percentages were applied as follows and are based on the HCM default (3%)
- Roadway link speed limits were observed in the field and input into the Synchro network to determine roadway link speeds

Results of the analysis show that the intersection of Dakota Avenue and Fowler Avenue does not currently meet the minimum level of service criteria during both the AM and PM Peak Hour. It should be noted that the intersection does not meet the peak hour signal warrant considering existing traffic. Table 2-1 shows the intersection LOS for the existing conditions. Synchro 10 (HCM 6th Edition) Worksheets are provided in Appendix C. The Dakota Avenue and Fowler Avenue intersection has been coded as one left turn lane, one through lane, and one right turn movement in the southbound approach since Synchro does not permit two lanes for all way stop intersections.

2.4.2 *Queuing Analysis*

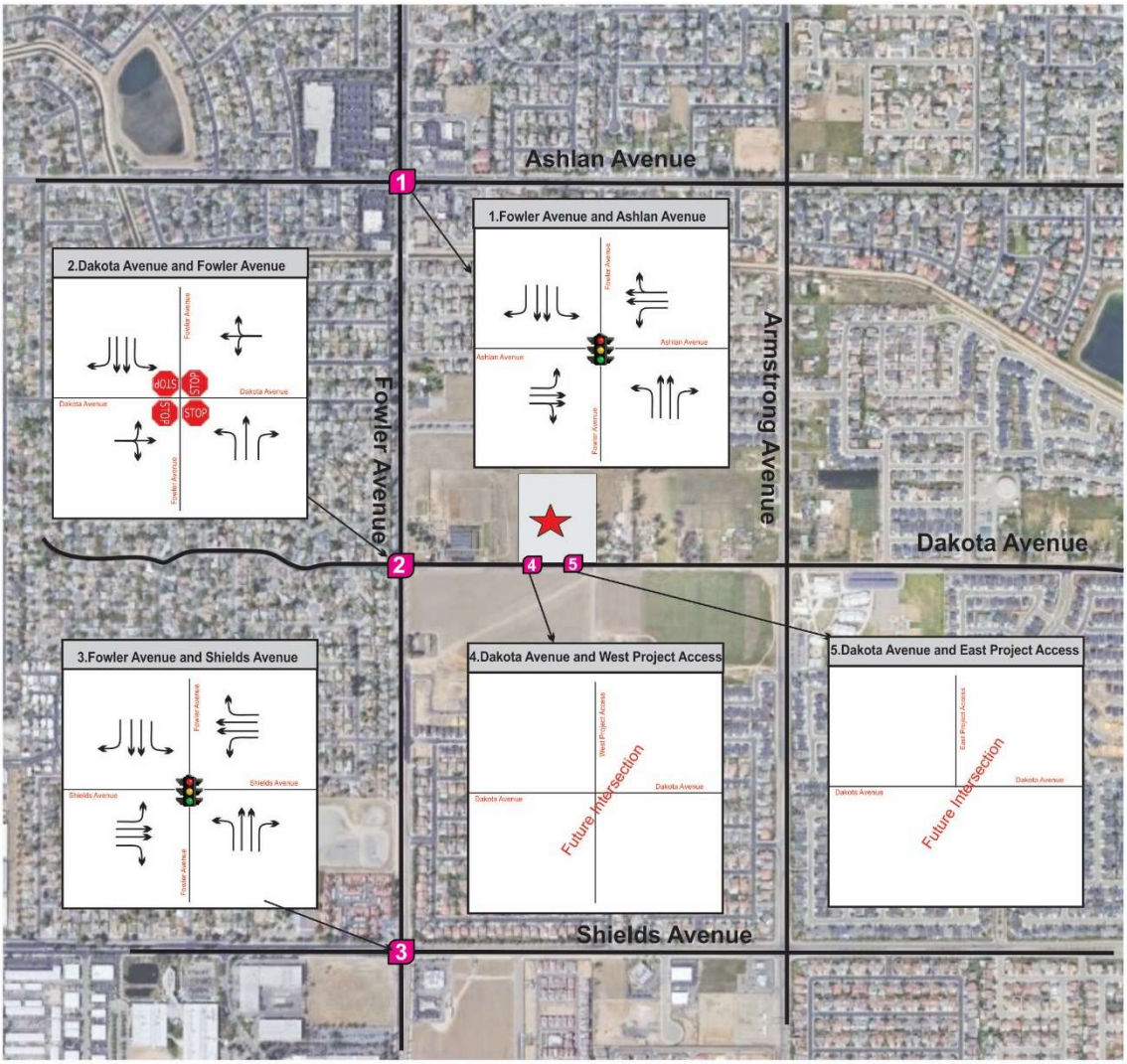
Table 2-2 provides a queue length summary for left and right turn lanes at the study intersections for Existing Conditions. Queuing analysis was completed using the Synchro software program. Synchro provides 95th percentile maximum queue lengths in feet which represents the maximum back of queue with 95th percentile traffic volumes. As shown in Table 2-2, the queue length for the northbound left and westbound left at the Ashlan Avenue and Fowler Avenue intersection exceeds the existing queue lane storage length.

2.4.3 *Roadway Segment Capacity Analysis*

Results of the AM and PM peak hour LOS segment analysis along the existing street and highway system are reflected in Table 2-3. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using Table 5.14-2 from the City of Fresno General Plan and Development Code Update Master Environmental Impact Report included in Appendix A. Results of the analysis show that all of the study roadway segments meet the minimum acceptable level of service criteria during both the AM and PM peak hour.

Tract 6374 Residential Development
Existing Lane Geometry

Figure 2-1



LEGEND

# Study Intersection	xxx Existing Lane geometry
Traffic Signal	Lane Geometry
STOP Stop Sign	

North

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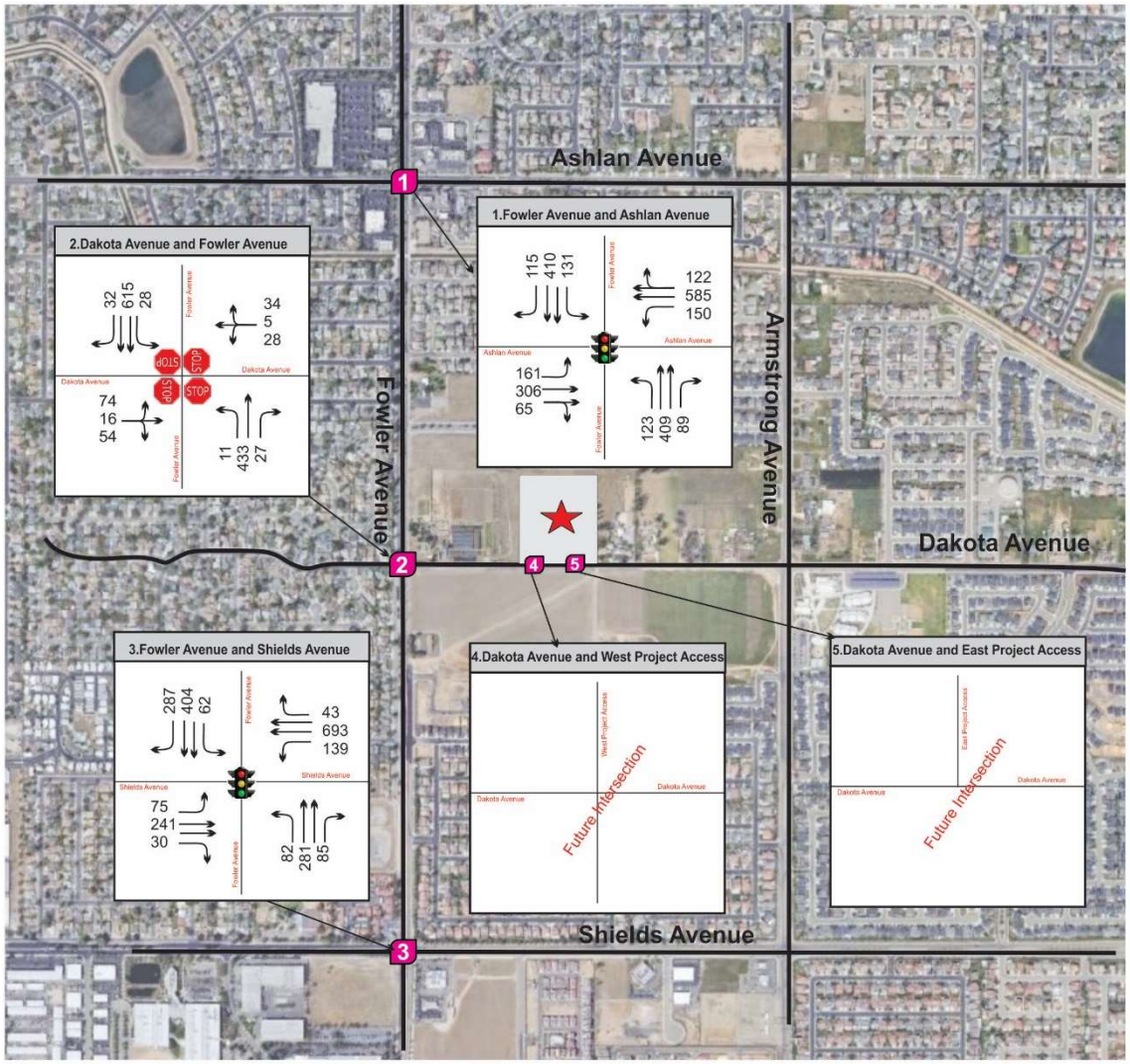
Tract 6374 Residential Development
Existing AM Peak Hour Traffic Count

Figure 2-2



Tract 6374 Residential Development
Existing PM Peak Hour Traffic Count

Figure 2-3

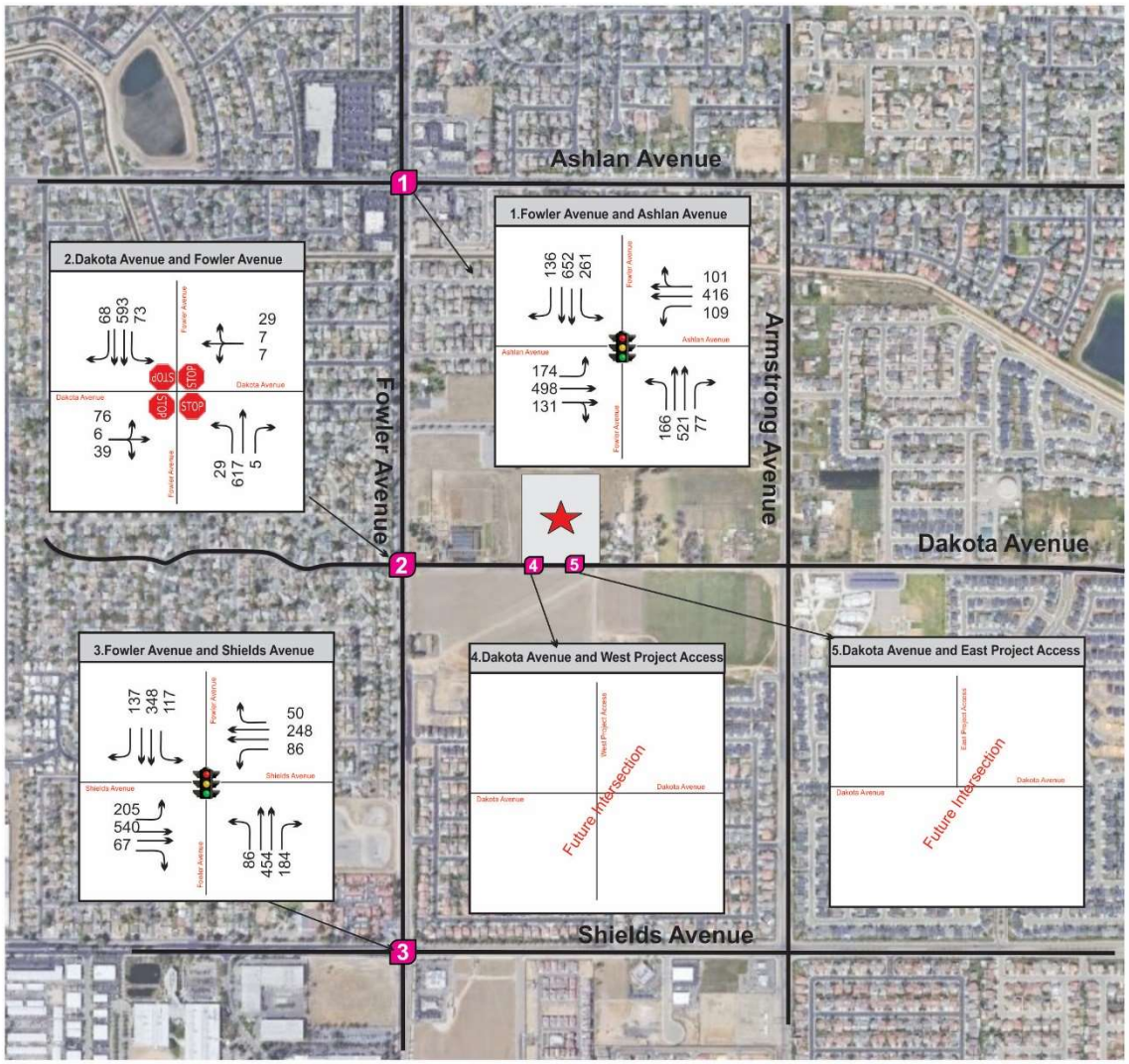


Table 2-1
Existing Intersection Operations

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING	
				DELAY	LOS
1. Ashlan Avenue and Fowler Avenue	Signalized	D	AM	40.4	D
			PM	40.7	D
2. Dakota Avenue and Fowler Avenue [1]	All-Way Stop	D	AM	**65.5**	**F**
			PM	**80.6**	**F**
3. Shields Avenue and Fowler Avenue	Signalized	D	AM	19.4	B
			PM	18.0	B
4. Dakota Avenue and West Project Acesss	Two way Stop	D	AM	Future Intersection	
			PM		
5. Dakota Avenue and East Project Acess	Two Way Stop	D	AM	Future Intersection	
			PM		

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For two-way stop controlled intersections, delay results show the delay for the worst movement.

1: The Dakota Avenue and Fowler Avenue intersection has been coded as one left turn lane, one through lane, and one right turn movement in the southbound approach since Synchro does not permit two lanes for all way stop intersections.

Table 2-2
Existing Queuing Operations

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING CONDITIONS	
			AM Queue	PM Queue
1. Ashlan Avenue / Fowler Avenue	NB Left	175	124	**193**
	NB Right	100	0	0
	SB Left	325	127	290
	SB Right	100	11	35
	EB Left	325	219	208
	WB Left	175	**202**	139
2. Dakota Avenue / Fowler Avenue	NB Left	125	25	25
	NB Right	100	25	0
	SB Left	75	25	25
	SB Right	75	25	25
3. Shields Avenue / Fowler Avenue	NB Left	250	59	67
	NB Right	150	9	42
	SB Left	250	45	105
	SB Right	150	60	36
	EB Left	250	81	182
	EB Right	150	0	4
	WB Left	275	145	74
	WB Right	225	0	0

Queue is measured in feet / **BOLD** denotes exceedance

Table 2-3
Existing Segment Operations

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	PEAK HOUR	EXISTING	
				VOLUME	LOS
Fowler Avenue					
Ashlan Avenue to Dakota Avenue	4 Lanes Divided (Arterial)	D	AM	1,246	D
			PM	1,656	D
Dakota Avenue to Shields Avenue	4 Lanes Divided / 3 Lanes Undivided [1] (Arterial)	D	AM	1,168	D
			PM	1,311	D

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

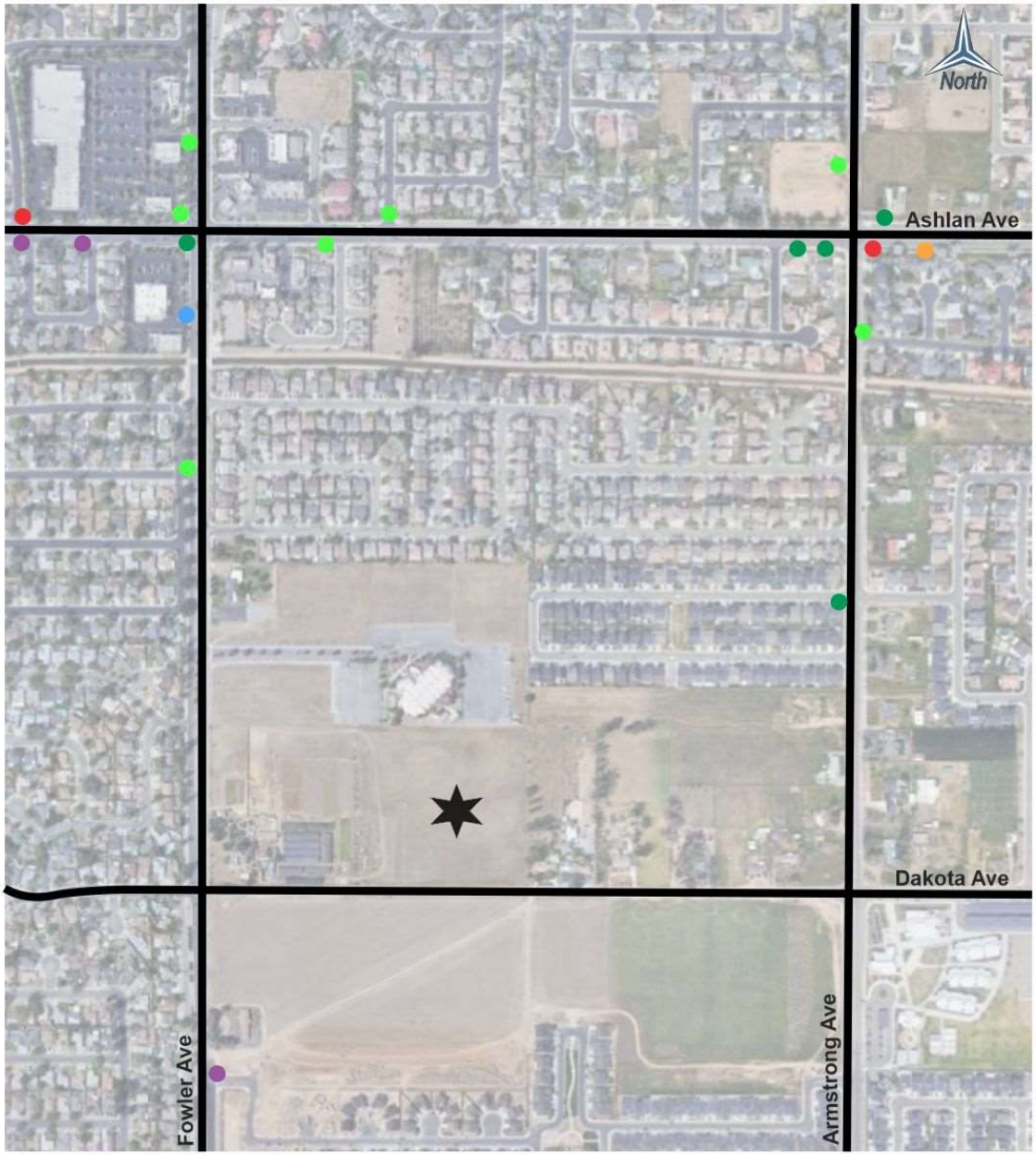
1: The existing segment is 4 Lanes Divided and 3 Lanes Undivided. LOS based upon 4 Lanes Undivided volumes from Table 5.14-2 (Roadway Functional Class and Peak Hour Level-of-Service Thresholds) from the City of Fresno General Plan and Development Code Update Master Environmental Impact Report.

2.5 Study Area Collision Data

The Transportation Injury Mapping System (TIMS) provided by University of California, Berkeley was used to evaluate traffic collisions in the study area. TIMS utilizes geocoded data provided by the Statewide Integrated Traffic Records System (SWITRS). SWITRS is a tool used by California Highway Patrol (CHP) and other Allied Agencies throughout California and includes various types of statistical reports and data. The database serves as a means to collect and process data gathered from a collision scene. Information from the TIMS database shows that approximately 19 injury or fatal accidents have occurred throughout the study area in the past 5 years. A graphical representation of traffic collisions throughout the study area for the past 5 years is provided in Figure 2-4. Collision data worksheets are provided in Appendix D. The City of Fresno/Clovis area had approximately 5,261 injury or fatal accidents over the same timeframe referenced above. Injury and fatal accidents in the study area represent 0.4% of incidents that occurred in the City of Fresno/Clovis.

Tract 6374 Residential Development
Study Area Collision Map (01/01/2016 - 12/31/2020)

Figure 2-4



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3.0 Traffic Impacts

This chapter provides an assessment of the traffic the Project is expected to generate and the impact of that traffic at study area road segments and intersections.

3.1 Trip Generation

To assess the impacts that the Project may have on the surrounding roadway network, the first step is to determine Project trip generation. Project trip generation was determined using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition). Trips associated with the residential development was derived from the Single-Family Residential (210) Land Use in the ITE Trip Generation Manual. The considerations described above led to the recommended trip generation for weekday AM (7:00-9:00am) and PM (4:00-6:00pm) peak hours shown in Table 3-1.

Table 3-1
Project Trip Generation

LAND USE	Quantity	DAILY TRIP ENDS (ADT)		WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
		RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
						IN	OUT	TOTAL			IN	OUT	TOTAL
Single-Family Residential (210)	145 D.U.	9.43	1,367	Ln(T) = 0.91 Ln(X) + 0.12	26:74	27	77	104	Ln(T) = 0.94 Ln(X) + 0.27	63:37	89	52	141
TOTAL TRIP GENERATION			**1,367**			**27**	**77**	**104**			**89**	**52**	**141**

Source: Generation factors from ITE Trip Generation Manual, 11th Edition.
Trip ends are one-way traffic movements, entering or leaving.
The numbers in parenthesis are ITE land use codes.

3.2 Trip Distribution

Project trip distribution is shown in Figure 3-1 and is based upon knowledge of the study area, engineering judgement, prevailing traffic patterns in the study area, major routes, population centers, and other existing development. Site access will be provided at two Project Driveways along Dakota Avenue between Fowler Avenue and Armstrong Avenue.

3.3 Project Traffic

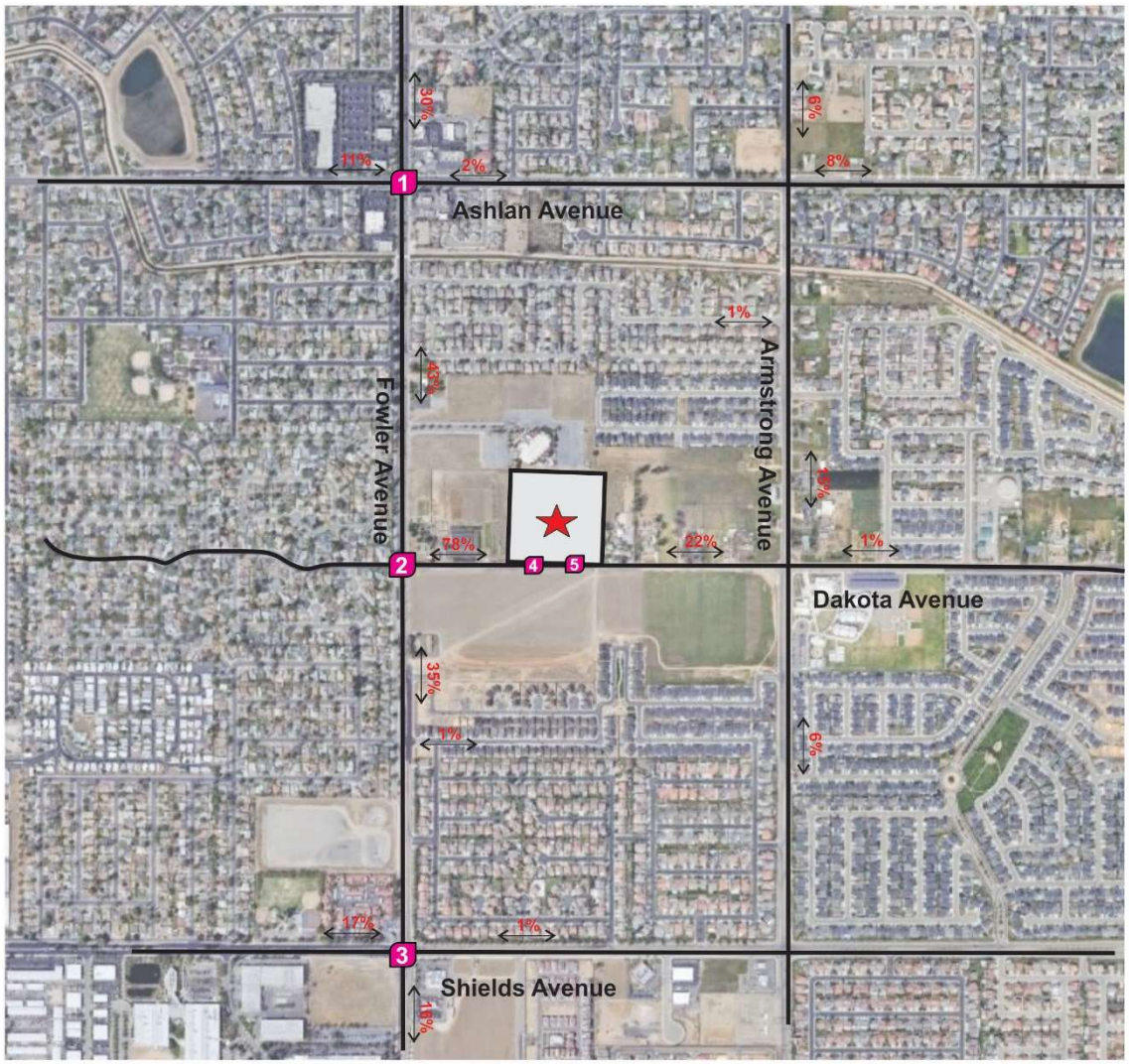
Project traffic as shown in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figure 3-1. A graphical representation of the resulting AM and PM peak hour Project trips used is shown in Figures 3-2 and 3-3.

3.4 Existing Plus Project Traffic Conditions

An Existing Plus Project Scenario was analyzed to include existing traffic plus traffic generated by the Project. The resulting traffic is shown in Figures 3-4 and 3-5.

Tract 6374 Residential Development
Trip Distribution

Figure 3-1



LEGEND

# Study Intersection	xxx Existing Lane geometry
Traffic Signal	Lane Geometry
	STOP Stop Sign

North

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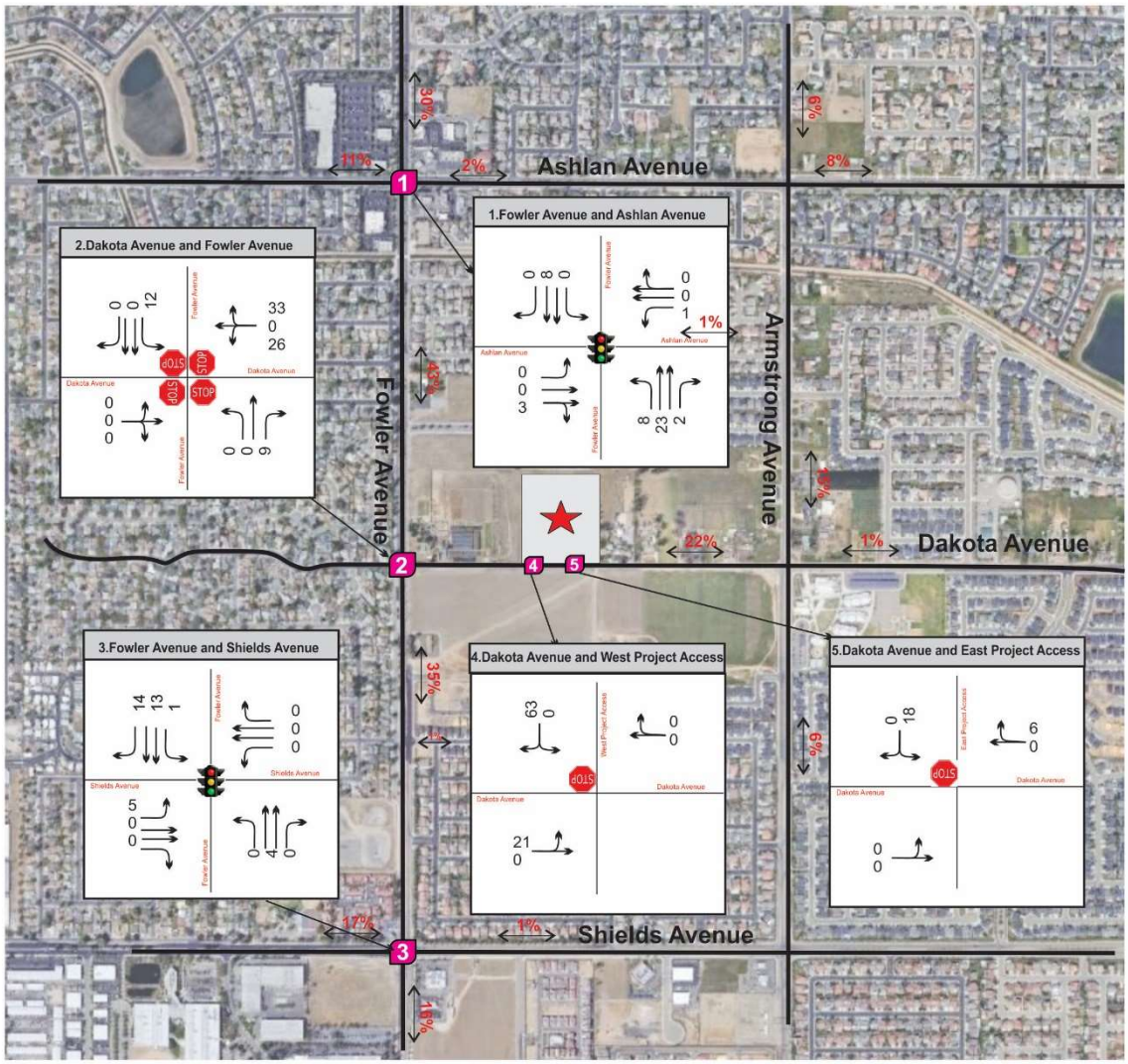
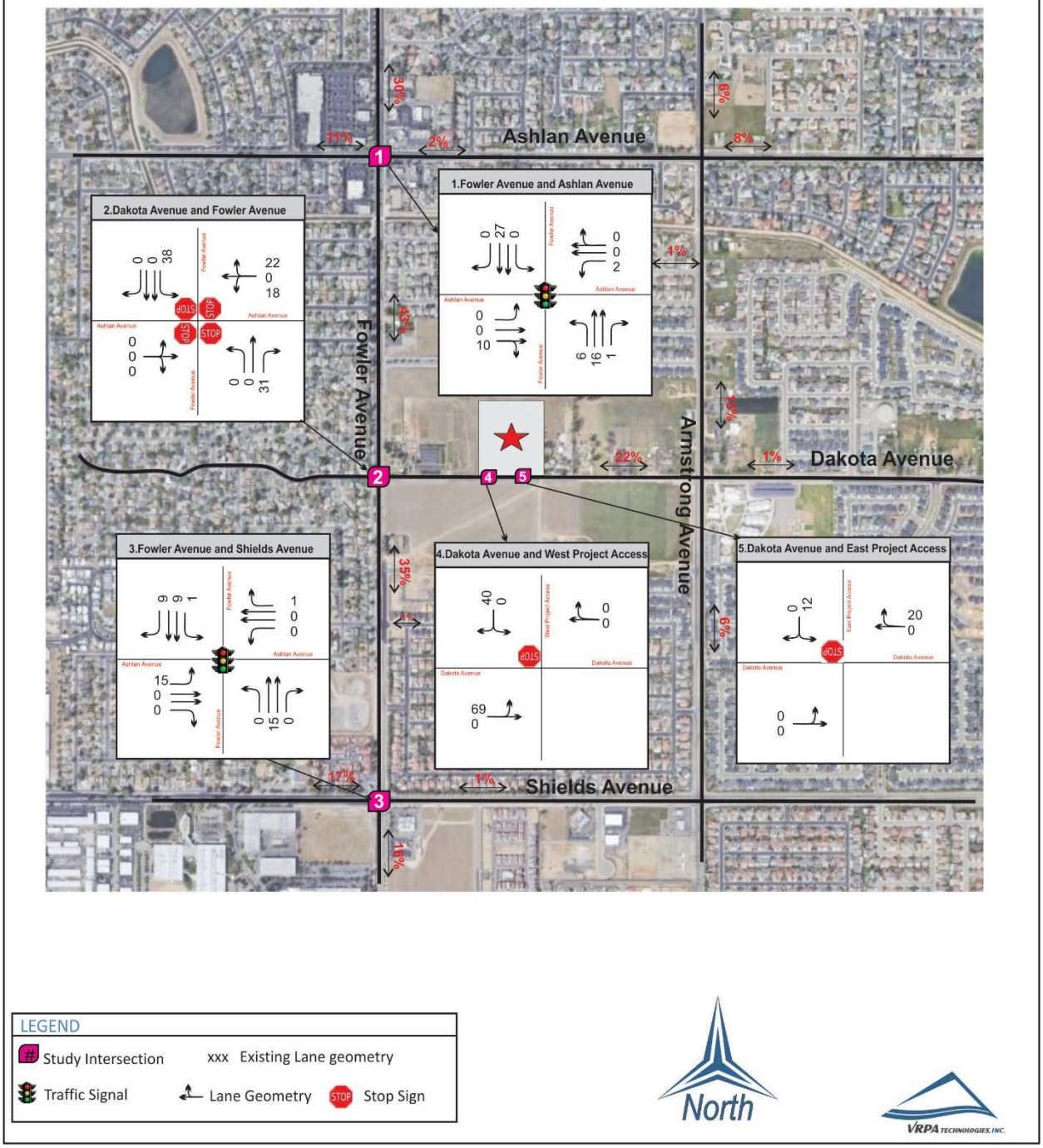
Tract 6374 Residential Development
Project AM Peak Hour Traffic Count

Figure 3-2



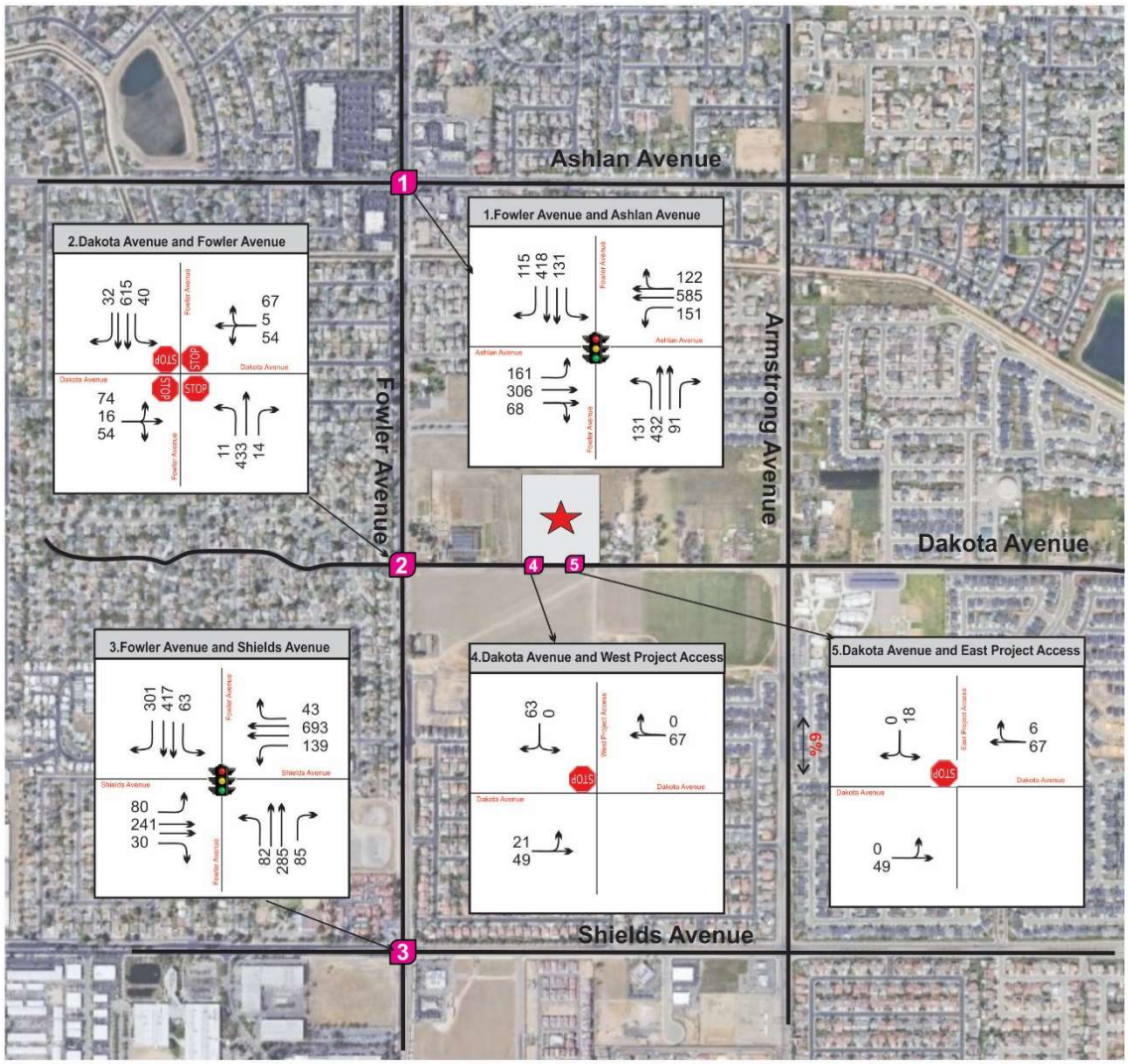
Tract 6374 Residential Development
Project PM Peak Hour Traffic Count

Figure 3-3



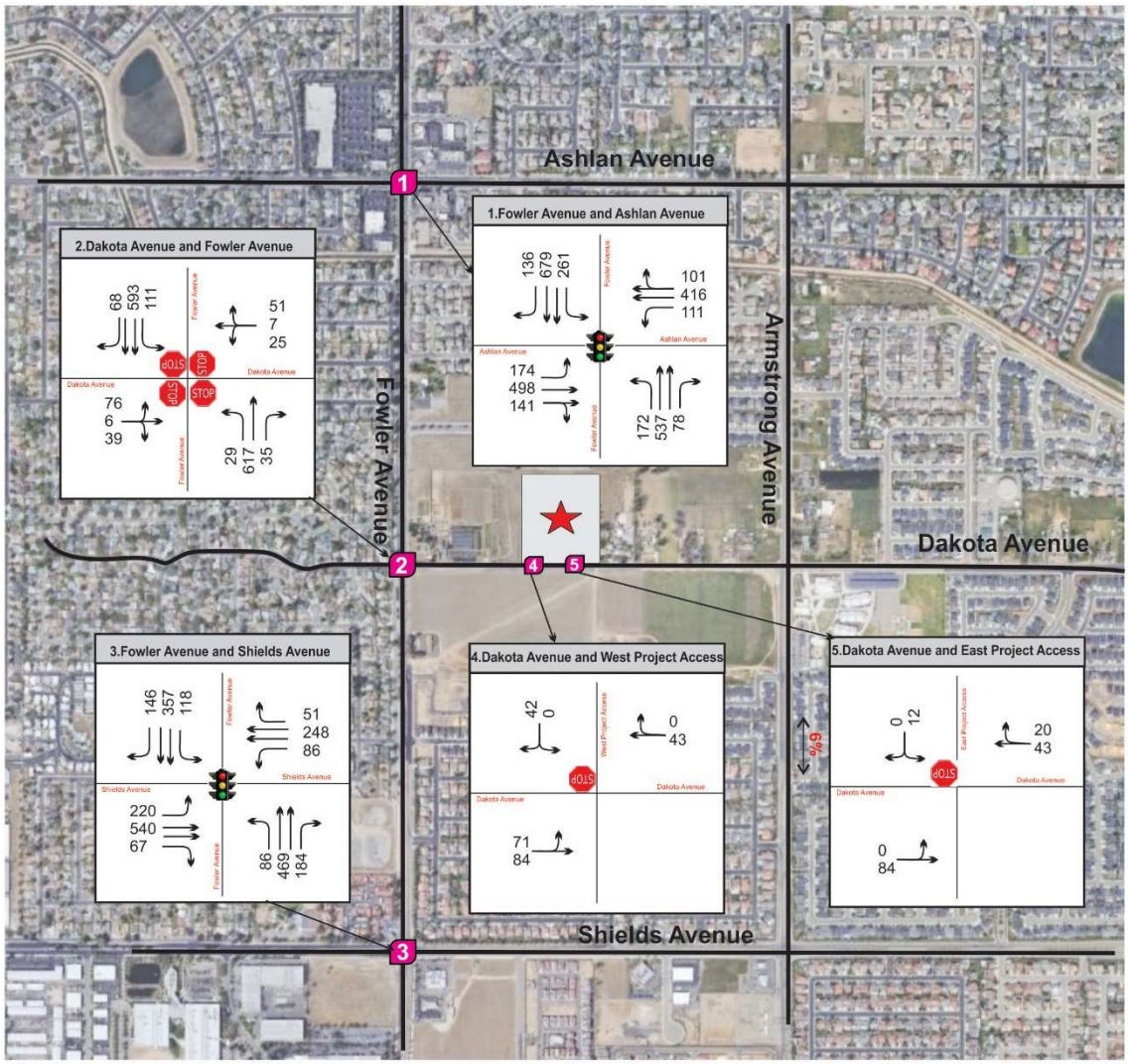
Tract 6374 Residential Development
Existing plus Project AM Peak Hour Traffic Count

Figure 3-4



Tract 6374 Residential Development
Existing plus Project PM Peak Hour Traffic Count

Figure 3-5



3.5 Approved/Pending Project Traffic

Traffic impact analyses typically require the analysis of approved or pending developments that have not yet been built in the vicinity of the Project. There are several development projects in the Project's vicinity that will add new trips to the intersections and roadway segments being evaluated in this TIS. The approved and pending developments that are included in the TIS are listed below.

- ✓ 90 units Apartment units at north side of Princeton Avenue between Fowler and Bliss Avenue.
- ✓ 210 Single Family Residential Lot at 2220 N Fowler Avenue.
- ✓ 133 Single Family Residential unit at North of Clinton Avenue between Armstrong and temperance Avenue.
- ✓ 134 Single Family residential unit at Northeast Corner of McKinley Avenue and temperance Avenue.
- ✓ 257 Single Family residential unit at Northeast Corner of Armstrong and Floradora Avenue.
- ✓ 122 Single Family residential unit at Northeast Corner of Armstrong and E Olive Avenue.
- ✓ 18,000 square feet business park of three single story buildings with one building having a drive thru lane and 102 parking stalls located on the East side of North Fowler Avenue between East Shields and East Princeton Avenues.
- ✓ 215 lots plus 27 out lots subdivision Located on the Northwest Corner of Armstrong and Floradora.
- ✓ 90 lot single family residential subdivision located on the Northwest corner of North Armstrong Avenue and East Clinton Avenue
- ✓ Animal Control Shelter Facility comprised of 5 buildings totaling roughly 51,928 square feet on West of N clovis Avenue and E Aircorp Way.
- ✓ 225 lots single family subdivision on 2299 N ARMSTRONG AVE.
- ✓ Construction of 2-story mixed-use building with a 9,500 sq. ft. event center on the second floor, and 11,250 sq. ft. mixed use on first floor on Southeast Corner of Shields and Armstrong Avenue.
- ✓ Proposal for a Tentative Tract Map 6371 with 27-lots on North Of Olive Avenue between Armstrong and Temperance.
- ✓ Tentative Tract Map No. 6366 with 49 single-family lots located on the West side of North Bliss Avenue between Princeton Avenue and Shields Avenue.
- ✓ Tentative Tract Map with 102 single-family lots located on South of Clinton between Fowler and Armstrong.
- ✓ Construct a new 19,800 sq. ft. office / warehouse building located on South of Shields between fowler and Armstrong.
- ✓ Multi-family residential development with 2-story buildings and a total of 64 units, with 124 parking stalls located on Southeast of Clinton and Armstrong.

Trip generation and distribution information for the approved and pending developments was estimated using trip generation rates from the ITE Trip Generation Manual (11th Edition) and engineering judgement and prevailing traffic patterns. Trip generation for the approved and

pending developments is shown in Table 3-2. Figures 3-6 and 3-7 show the AM and PM peak hour trips for Approved and Pending project traffic. The peak hour trips for the Approved and Pending project traffic was applied to the Near-Term and Cumulative Year 2042 traffic conditions discussed later in the report.

3.6 Near-Term Traffic Conditions

A Near-Term Scenario was analyzed to include year 2022 traffic (estimated Project Opening-Day) plus traffic generated by the Project plus traffic generated by applying an annual growth rate of 2% per year. The annual growth rate in the study area is less than 2% per year as shown in the Fresno COG model. A growth rate of 2% per year was applied to conservatively estimate traffic conditions in the study area. The resulting traffic is shown in Figures 3-8 and 3-9.

3.7 Cumulative Year 2042 Without Project Traffic Conditions

The impacts of the Project were analyzed considering future traffic conditions, approximately twenty (20) years after the assumed opening day of the Project, or in this case the year 2042. The levels of traffic expected in 2042 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plans of local agencies, including the City of Fresno and Fresno County. Traffic conditions without the Project in the Year 2042 were estimated by applying an annual growth rate of 2% per year to existing traffic volumes. The annual growth rate in the study area is less than 2% per year as shown in the Fresno COG model. A growth rate of 2% per year was applied to conservatively estimate traffic conditions in the study area.

Traffic conditions resulting from this scenario are shown in Figures 3-10 and 3-11.

3.8 Cumulative Year 2042 Plus Project Traffic Conditions

The addition of Project trips, which were distributed to the roadway system using the trip distribution percentages shown in Figure 3-1 (Section 3.3), were added to Cumulative Year 2042 Without Project traffic volumes.

Traffic conditions resulting from this scenario are shown in Figures 3-12 and 3-13.

3.9 Impacts

3.9.1 *Intersection Capacity Analysis*

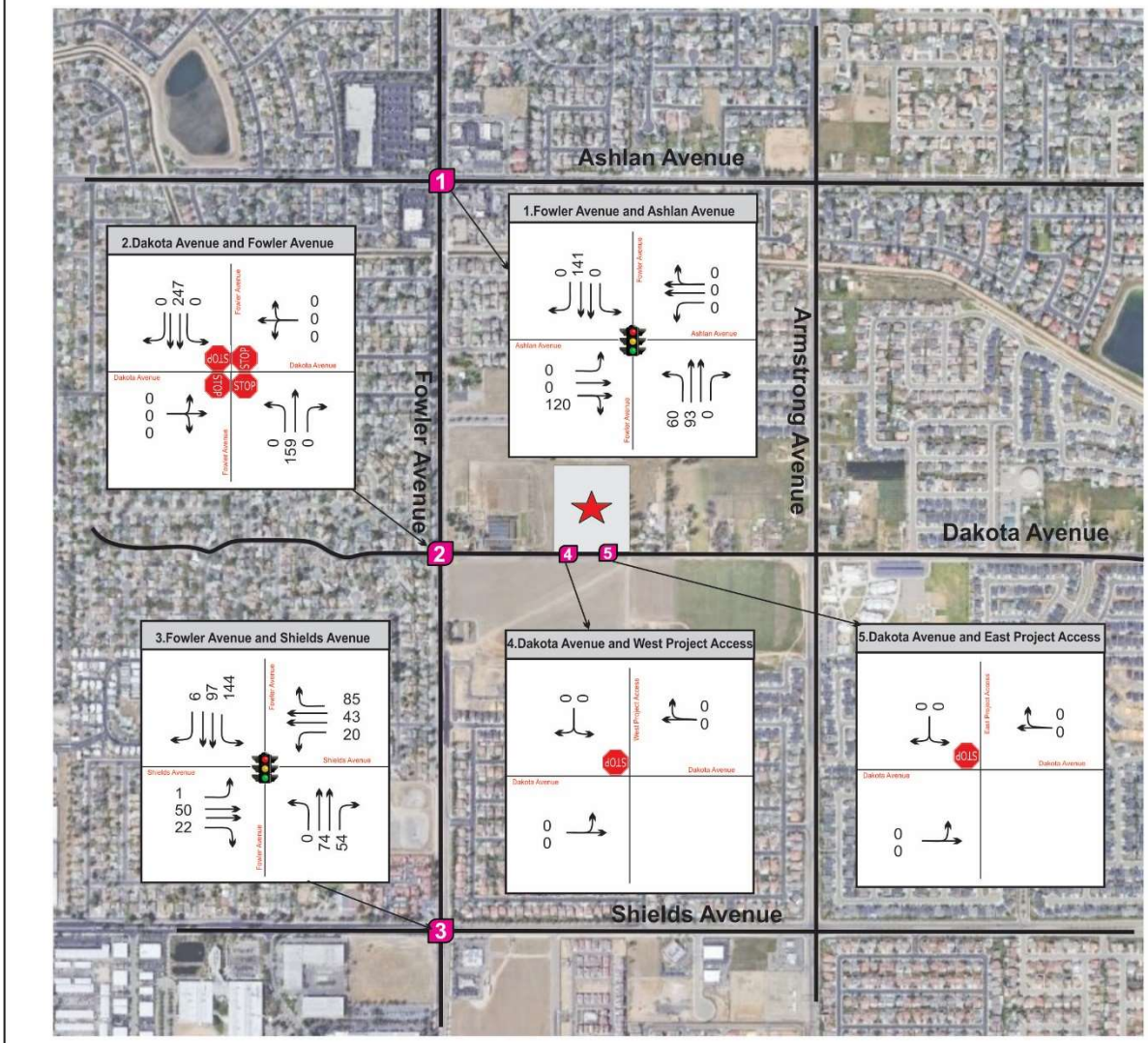
Table 3-3 shows intersections that are expected to fall short of desirable operating conditions for various scenarios. Potential mitigation measures are discussed in Chapter 4 of this report. Results of the analysis show that the Project will contribute to an unacceptable LOS at two (2) of the five (5) study intersections when comparing the Cumulative Year 2042 scenarios.

Table 3-2
Approved/Pending Project Trip Generation

S.N	PROJECT	ITE TRIP GENERATION CODE	QUANTITY	TRIP GENERATION						
				DAILY TRIP ENDS(ADT)	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
				VOLUME	IN	OUT	TOTAL	IN	OUT	TOTAL
1	Tentative Tract 6241(225 Single Family D.U)	210-Single Family Residential	225 D.U	2128	41	115	156	134	79	213
2	Tentative Tract Map No.6325(90 Single Family D.U)	210-Single Family Residential	90 D.U	916	18	50	68	57	33	90
3	Tract 6214 (210 Single Family Residential unit)	210-Single Family Residential	210 D.U	1997	38	108	146	126	74	200
4	Tract 6281 (133 Single Family D.U)	210-Single Family Residential	133 D.U	1312	25	72	97	82	48	130
5	Tentative Tract Map with 102 single-family lots	210-Single Family Residential	102 D.U	1028	20	56	76	64	37	101
6	Armstrong Apartments-64 Units	220-Multifamily Housing(low rise)	64 Units	486	10	33	43	30	18	48
7	19,800 sq. ft. office / warehouse	710-General Office Building	19.8 k s f	284	37	5	42	7	36	43
8	90 Apartment Units at Princeton and Fowler Avenue	220-Multifamily Housing(low rise)	90 units	652	12	39	51	37	22	59
9	Shields Event Center	Office Park Land Use from ITE (750)	20.75 k. s. f	330	190	24	214	6	41	47
10	Tract Map No. 6366 with 49 single-family lots	210-Single Family Residential	49 D. U	523	10	29	39	32	19	51
11	Fowler Shopping center	770-Business Park	18 k.s.f	907	23	4	27	8	24	32
12	Tract 6201 (257 Single Family D.U)	210-Single Family Residential	257 D.U	2405	46	130	176	152	89	241
13	Tentative Tract Map 6309 (215 Single Family D.U)	210-Single Family Residential	215 D.U	2041	38	111	149	128	76	204
14	Tract 6235 (122 Single Family D.U)	210-Single Family Residential	122 D.U	1212	23	66	89	75	45	120
15	Tentative Tract Map #6371 with 27-lots.	210-Single Family Residential	27 D.U	303	6	17	23	18	11	29
16	Tract 6219 (134 Single Family D.U)	210-Single Family Residential	134 D.U	1321	25	72	97	82	49	131
17	Proposed Animal Shelter	760-Research and development center	51.3 k.s.f	745	57	13	70	11	57	68
	Total Trip Generation			**16524**	**537**	**859**	**1396**	**956**	**652**	**1608**

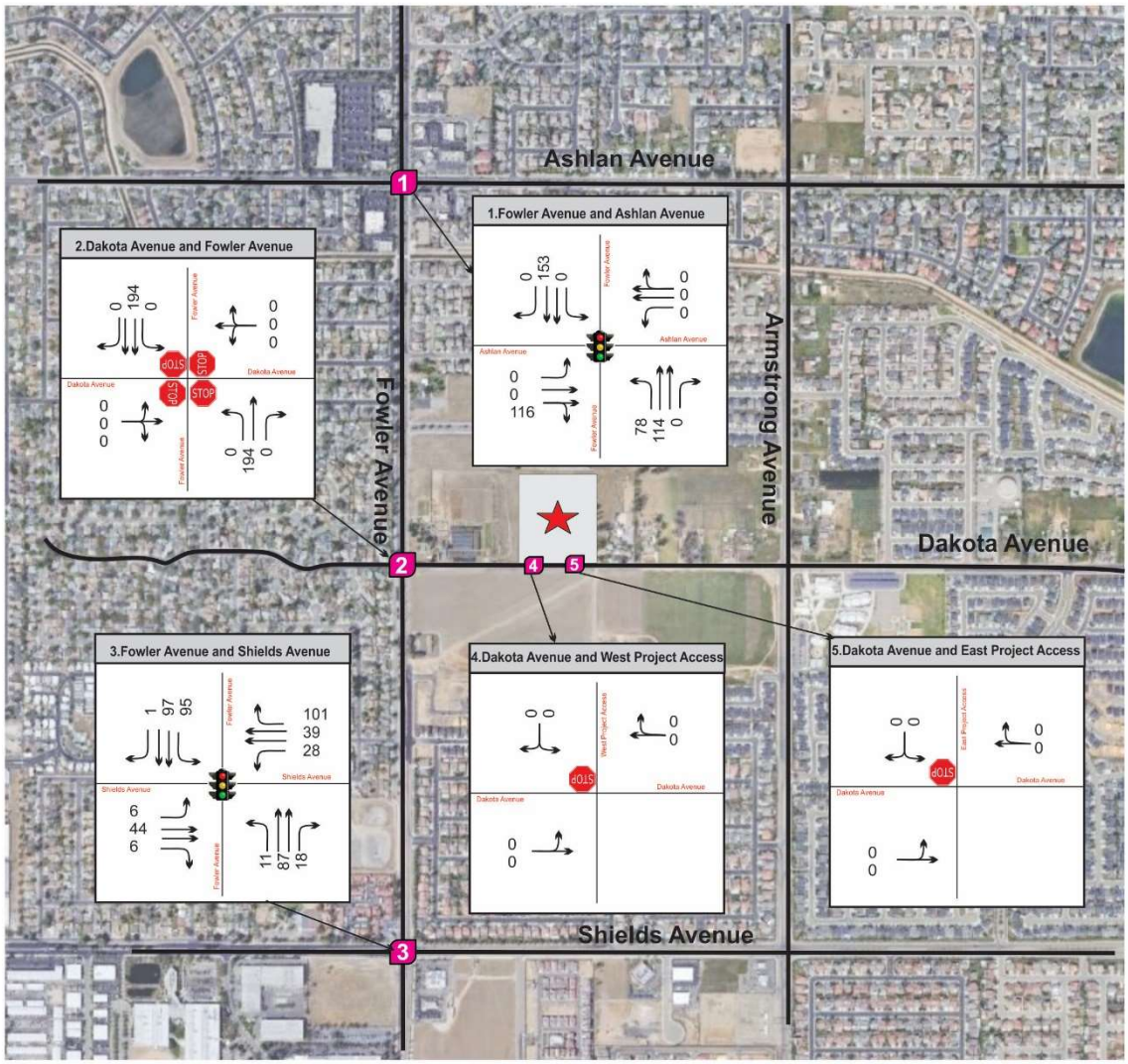
Tract 6374 Residential Development
Near Term Project Trip AM Peak Traffic Count

Figure 3-6



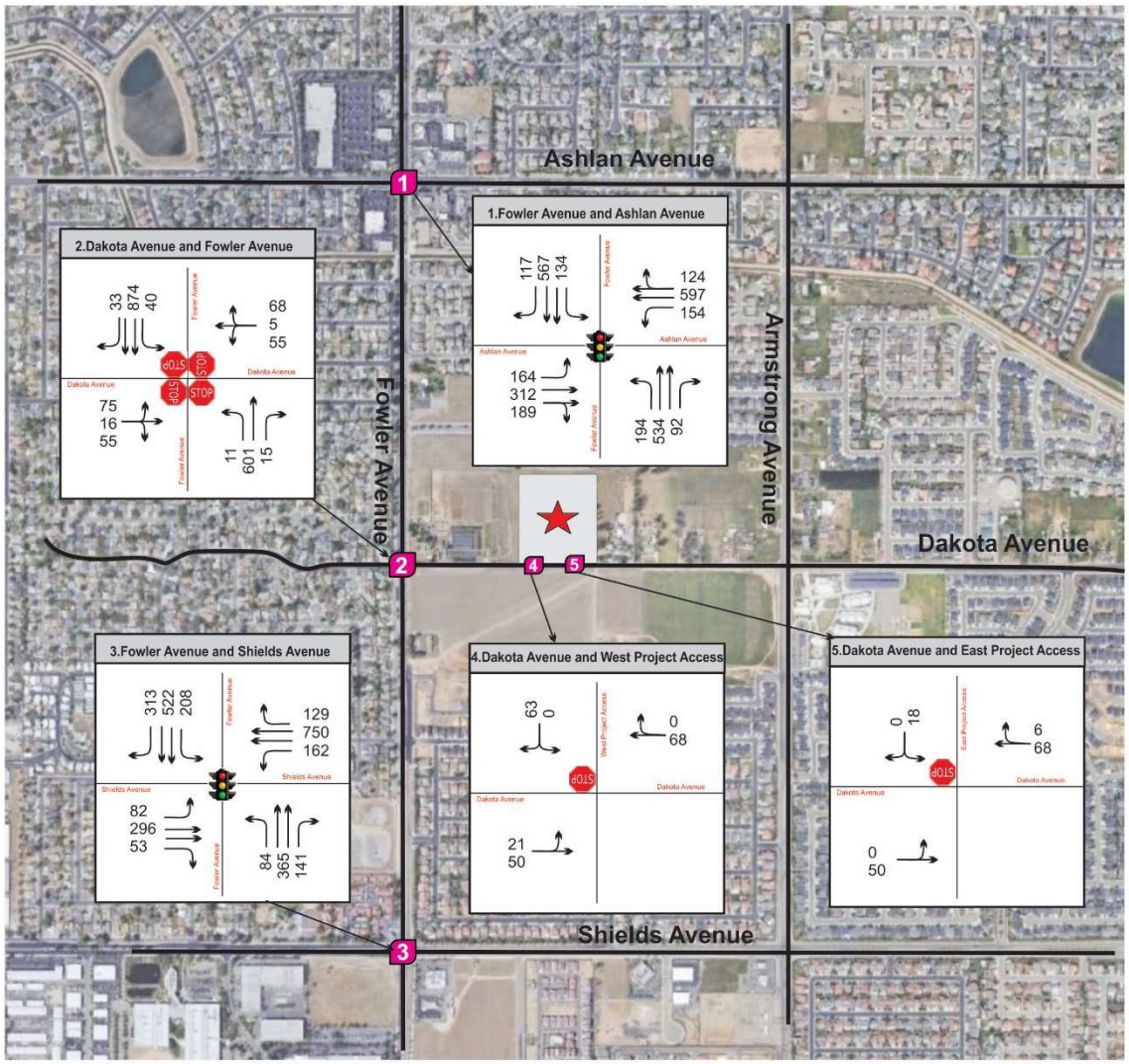
Tract 6374 Residential Development
Near Term Project Trip PM Peak Traffic Count

Figure 3-7



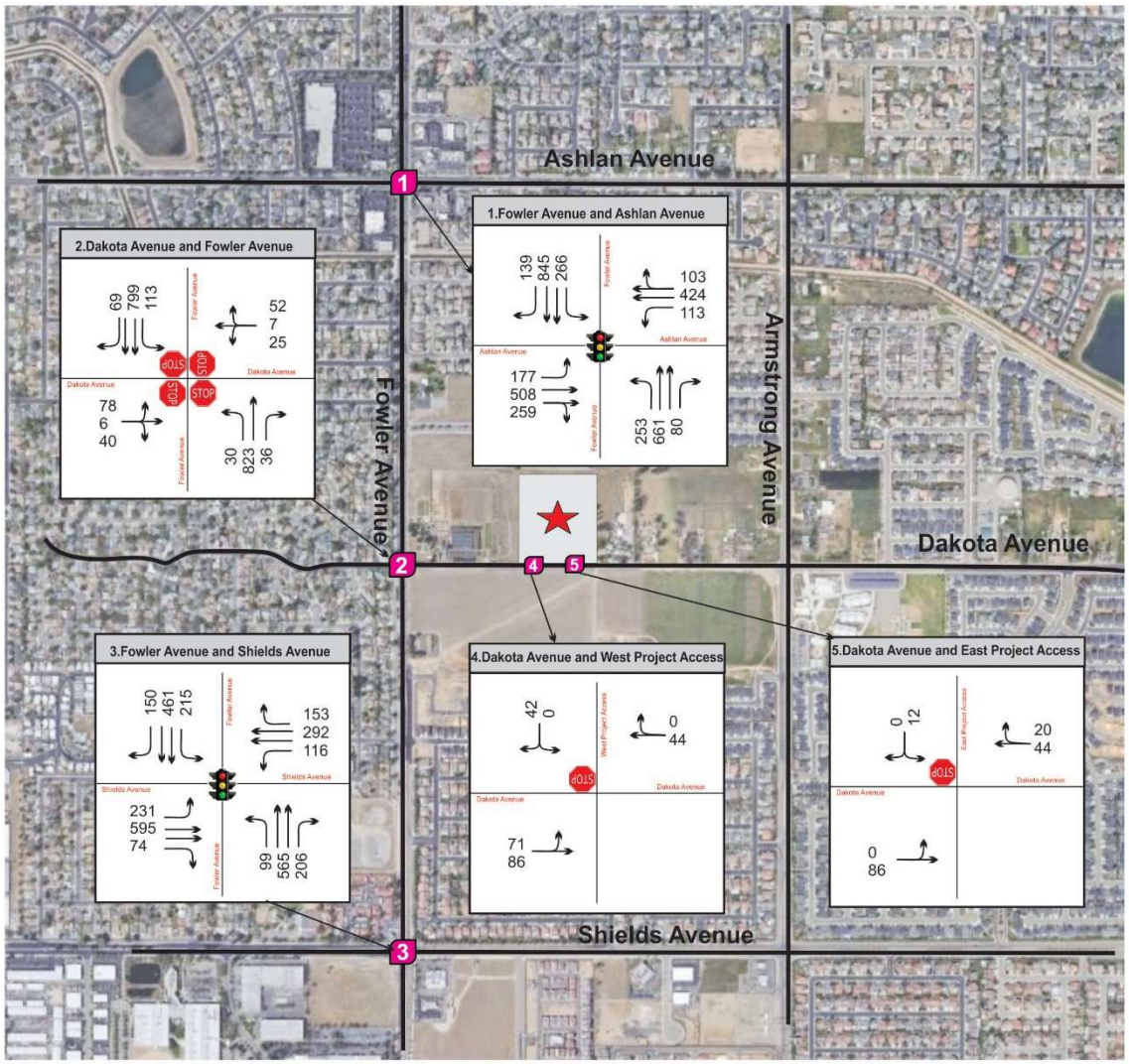
Tract 6374 Residential Development
Near Term (Opening Year) With Project AM Peak Traffic Count

Figure 3-8



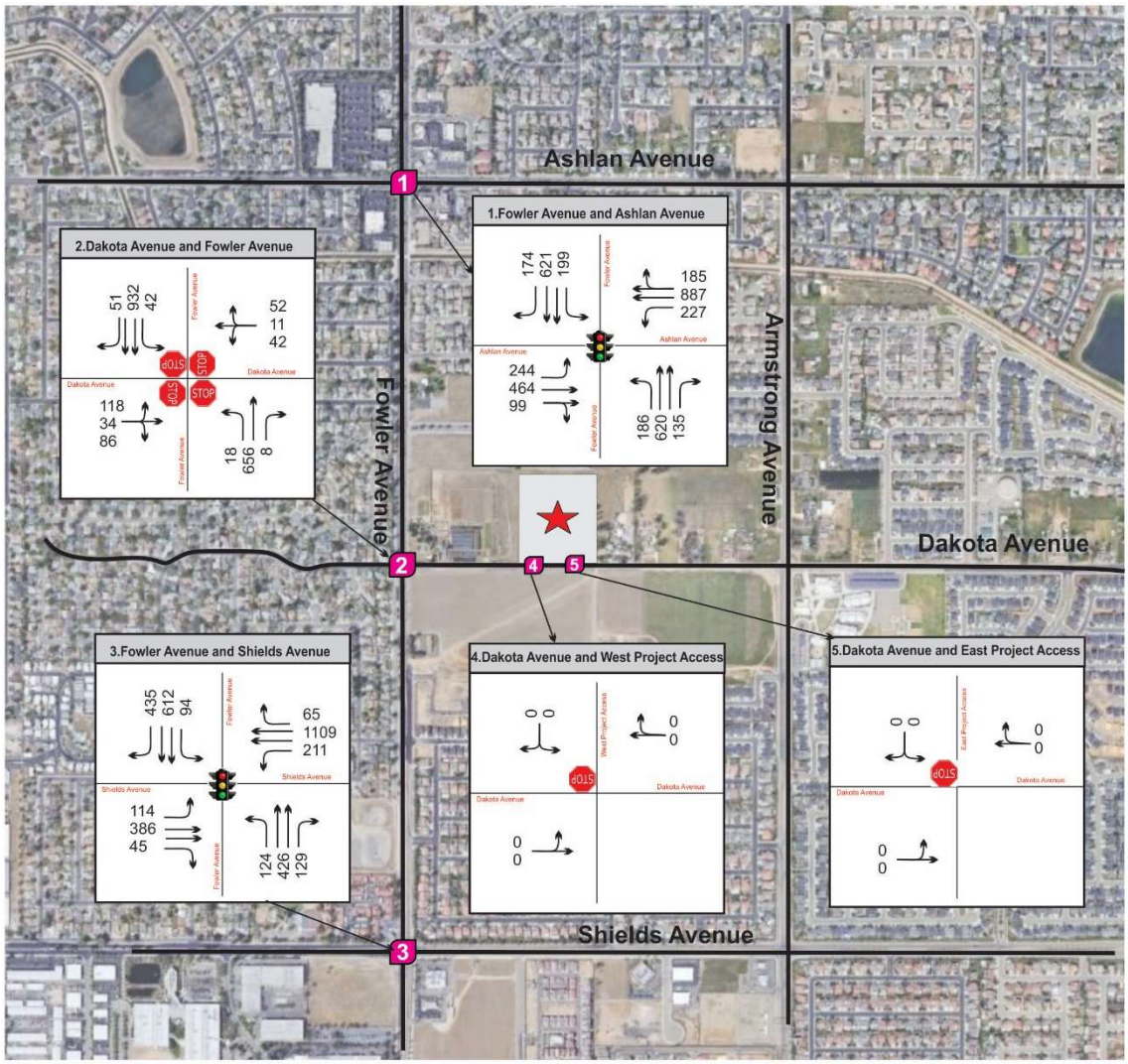
Tract 6374 Residential Development
Near Term (Opening Year) With Project PM Peak Traffic Count

Figure 3-9



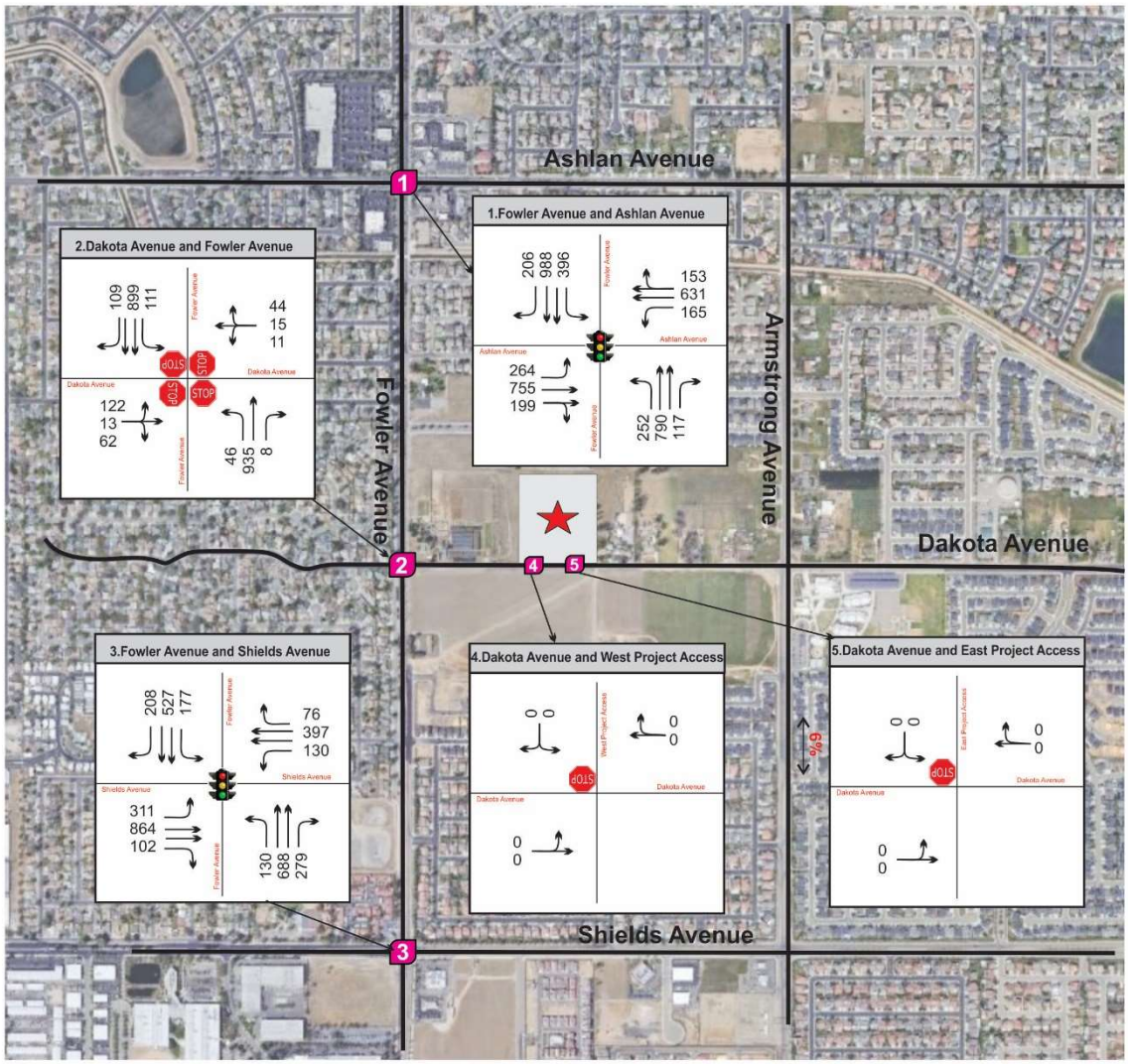
Tract 6374 Residential Development
Cumulative Year 2042 Without Project AM Peak Hour Traffic Count

Figure 3-10



Tract 6374 Residential Development
Cumulative Year 2042 Without Project PM Peak Hour Traffic Count

Figure 3-11



LEGEND

# Study Intersection	xxx Existing Lane geometry
Traffic Signal	Lane Geometry
STOP Stop Sign	

North

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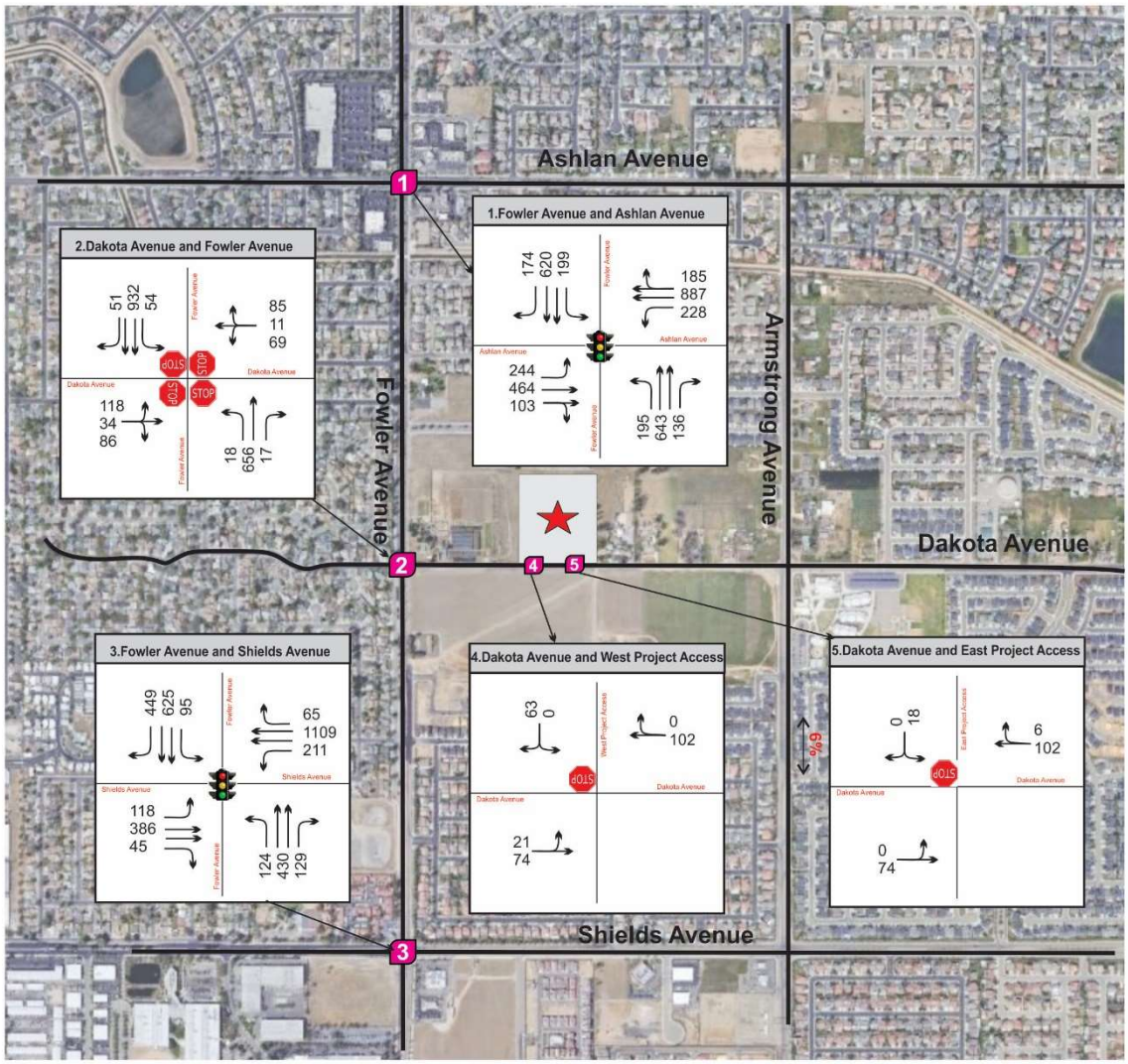
Tract 6374 Residential Development
Cumulative Year 2042 Plus Project AM Peak Hour Traffic Count

Figure 3-12



LEGEND

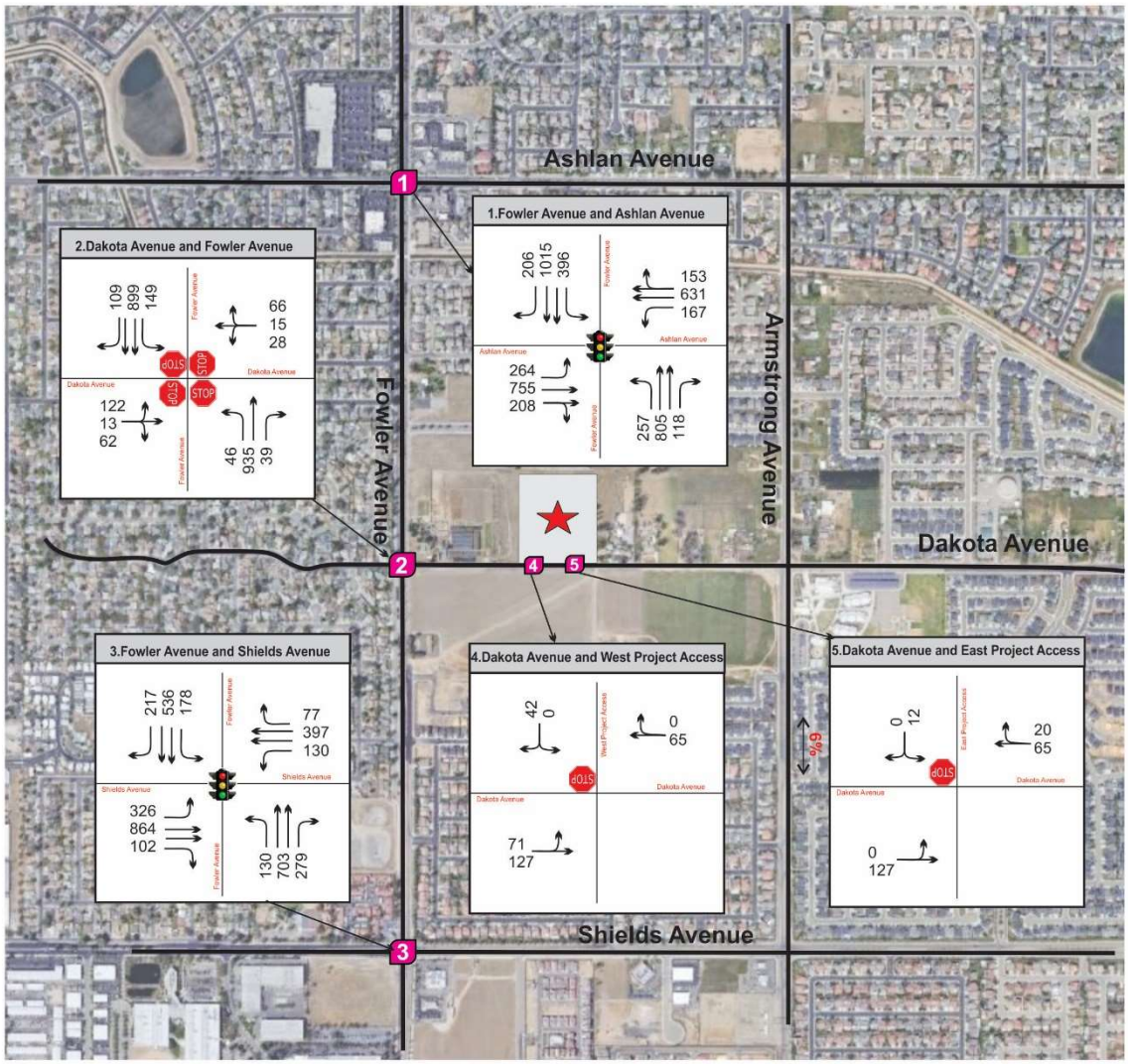
# Study Intersection	xxx Existing Lane geometry		
Traffic Signal	Lane Geometry	STOP Stop Sign	

North

VRPA TECHNOLOGIES, INC.

Tract 6374 Residential Development
Cumulative Year 2042 Plus Project PM Peak Hour Traffic Count

Figure 3-13



LEGEND

# Study Intersection	xxx Existing Lane geometry
Traffic Signal	Lane Geometry
STOP Stop Sign	

North

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Table 3-3
Intersection Operations

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 WITH PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Ashlan Avenue and Fowler Avenue	Signalized	D	AM	41.1	D	43.5	D	**72.8**	**F**	**74.0**	**F**
			PM	44.9	D	**64.1**	**E**	**103.7**	**F**	**108.9**	**F**
2. Dakota Avenue and Fowler Avenue	All-Way Stop	D	AM	**78.2**	**F**	**233**	**F**	**30.53**	**F**	**330.9**	**F**
			PM	**93.9**	**F**	**234.3**	**F**	**341.9**	**F**	**357.1**	**F**
3. Shields Avenue and Fowler Avenue	Signalized	D	AM	19.6	B	21.6	C	35.0	D	36.9	D
			PM	18.2	B	29.4	C	35.1	D	36.3	D
4. Dakota Avenue and West Project Acesss	Two way Stop	D	AM	8.9	A	8.9	A	Future Intersection		9.1	A
			PM	8.8	A	8.7	A			8.8	A
5. Dakota Avenue and East Project Acess	Two Way Stop	D	AM	9.3	A	9.3	A	Future Intersection		9.7	A
			PM	9.3	A	9.4	A			9.8	A

DELAY is measured in seconds
LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For two-way stop controlled intersections, delay results show the delay for the worst movement.

1: The Dakota Avenue and Fowler Avenue intersection has been coded as one left turn lane, one through lane, and one right turn movement in the southbound approach since Synchro does not permit two lanes for all way stop intersections.

3.9.2 *Queuing Analysis*

Table 3-4 provides a queue length summary for left and right turn lanes at study intersections. Queuing analysis was completed using the Synchro software program which provides 95th percentile maximum queue lengths in feet. The queue presented in Table 3-4 represents the approximate queue lengths for the respective lane movements. Results of the queuing analysis show that several movements exceed the existing queue lane storage lengths.

3.9.3 *Segment Capacity Analysis*

Results of the AM and PM peak hour LOS segment analysis along the existing street and highway system are reflected in Table 3-5. Results of the analysis show that all of the study roadway segments meet the minimum acceptable level of service criteria during both the AM and PM peak hour when considering the Existing Plus Project, Near-Term Plus Project, Cumulative Year 2042 Without Project and Cumulative Year 2042 Plus Project scenarios.

3.10 VMT Analysis

The VMT analysis was conducted based on the City of Fresno's CEQA Guidelines for Vehicle Miles Traveled Thresholds (City of Fresno, June 2020). A model run of the Fresno Council of Governments regional travel demand model was conducted. The results showed a project VMT per capita of 13.24, which is below the VMT per capita threshold of 14.0. Therefore, the project has a less than significant VMT impact and no mitigation measures are needed. Additional detail is provided in Appendix F.

Table 3-4
Queuing Operations

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
			AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue
1. Ashlan Avenue / Fowler Avenue	NB Left	175	162	**224**	**229**	**316**	**330**	**479**	**341**	**489**
	NB Right	100	0	0	9	0	32	6	33	0
	SB Left	325	162	294	152	317	**346**	**681**	**346**	**682**
	SB Right	100	13	27	23	29	69	**122**	69	**122**
	EB Left	325	192	220	200	246	**403**	**498**	**403**	**500**
	WB Left	175	**177**	163	**194**	172	**283**	**344**	**283**	**353**
2. Dakota Avenue / Fowler Avenue	NB Left	125	25	25	25	25	25	25	25	25
	NB Right	100	25	25	25	25	0	0	25	25
	SB Left	75	25	25	25	25	25	25	25	50
	SB Right	75	25	25	25	25	25	25	25	25
3. Shields Avenue / Fowler Avenue	NB Left	250	59	67	66	79	146	120	148	121
	NB Right	150	9	42	34	40	12	48	35	48
	SB Left	250	45	109	181	243	78	237	77	243
	SB Right	150	64	38	73	34	**181**	42	**187**	43
	EB Left	250	85	199	86	**270**	150	**357**	144	**380**
	EB Right	150	0	4	0	23	0	39	0	39
	WB Left	275	145	74	167	151	201	190	213	190
	WB Right	225	0	0	27	51	8	0	5	0

Queue is measured in feet / **BOLD** denotes exceedance

Table 3-5
Segment Operations

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
Fowler Avenue											
Ashlan Avenue to Dakota Avenue	4 Lanes Divided (Arterial)	D	AM	1291	D	1730	D	1888	D	1,933	D
			PM	1718	D	2211	D	2511	D	2,573	D
Dakota Avenue to Shields Avenue	4 Lanes Divided / 3 Lanes Undivided [1] (Arterial)	D	AM	1,181	D	1,611	D	1,737	D	1,750	D
			PM	1,361	D	1,775	D	1,987	D	2,037	D

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

1: The existing segment is 4 Lanes Divided and 3 Lanes Undivided. LOS based upon 4 Lanes Undivided volumes from Table 5.14-2 (Roadway Functional Class and Peak Hour Level-of-Service Thresholds) from the City of Fresno General Plan and Development Code Update Master Environmental Impact Report.

4.0 Mitigation

This chapter describes potential improvements to mitigate the traffic impacts of the Project. Described below are potential improvements at study area intersections for various scenarios. In order to mitigate the Project's impacts, the Project may be required to build improvements that are identified under the 'Existing Plus Project' condition to improve identified LOS deficiencies. As discussed in Section 2, the Dakota Avenue and Fowler Avenue intersections currently operates at LOS F under existing conditions for the AM and PM peak hours.

4.1 Recommended Improvements

INTERSECTIONS

✓ Ashlan Avenue / Fowler Avenue
Recommended improvements to achieve acceptable levels of service:

- Near-Term Plus Project scenario:
  - Widen the westbound approach to 1 left lane, 2 through lane and 1 right turn lane (adding 1 right turn lane)
  - Widen the eastbound approach to 1 left lane, 2 through lane and 1 right turn lane (adding 1 right turn lane)

- Cumulative Year 2042 Plus Project scenario:
  - Widen the westbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
  - Widen the eastbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
  - Widen the northbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane)
  - Widen the southbound approach to 2 left lane, 2 through lane and 1 right turn lane (adding 1 left turn lane)

The improvements identified above for the Near-Term Plus Project and Cumulative Year 2042 Plus Project scenario are sufficient to meet the City of Fresno's level of service criteria.

✓ Dakota Avenue/ Fowler Avenue
Recommended improvements to achieve acceptable levels of service:

- Existing Plus Project, Near-Term Plus Project, and Cumulative Year 2042 Plus Project scenarios:
  - Install Traffic Signal

The improvements identified above for the Existing Plus Project, Near-Term Plus Project, and Cumulative Year 2042 Plus Project scenarios are sufficient to meet the City of Fresno's minimum level of service criteria.

POST-MITIGATION LEVEL OF SIGNIFICANCE

The level of service resulting from the potential improvements identified above is shown in Table 4-1 for study area intersections. The resulting Cumulative Year 2042 lane geometry is shown in Figure 4-1.

Table 4-2 identifies left turn and right turn lane pocket lengths required for the Cumulative Year 2042 scenario. Although the need for extended turn lane pockets would occur at some locations prior to the Cumulative Year 2042 scenario, this scenario provides the maximum length needed and therefore these lengths would also provide for projected traffic volumes under the Existing Plus Project and Near-Term Plus Project scenarios.

Table 4-1
Intersection Operations with Mitigation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITH PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Ashlan Avenue and Fowler Avenue	Signalized	D	AM			34.3	C	39.5	D
			PM			45.8	D	47.0	D
2. Dakota Avenue and Fowler Avenue	Signalized	D	AM	12.0	B	14.5	B	17.8	B
			PM	11.2	B	13.2	B	30.3	C

DELAY is measured in seconds
LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded
For signalized intersections, delay results show the average for the entire intersection.

Tract 6374 Residential Development
Cumulative Year 2042 Mitigated lane Geometry

Figure 4-1

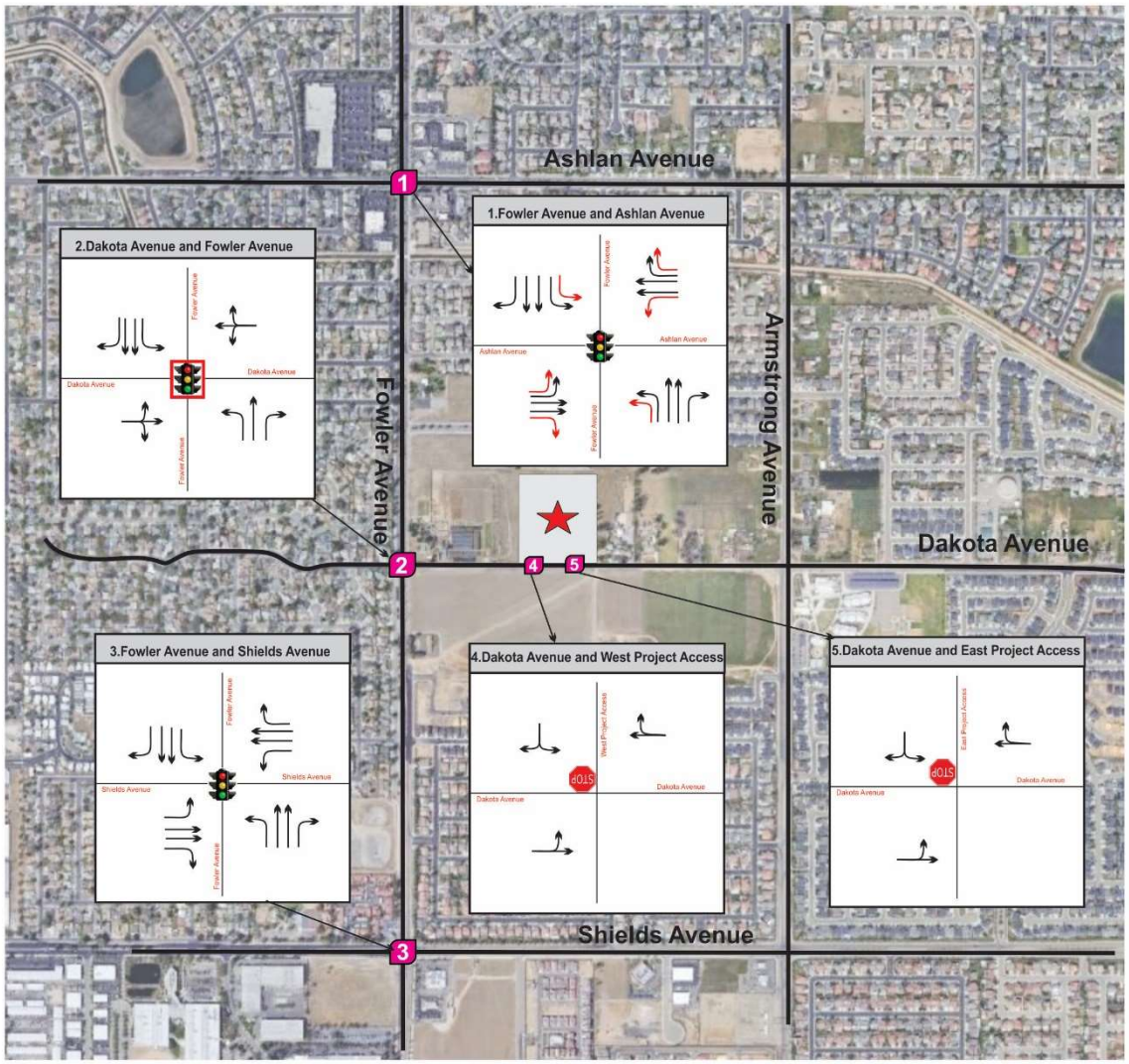


Table 4-2
Left Turn and Right Turn Storage Requirements

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		CUMULATIVE YEAR 2042 RECOMMENDED STORAGE LENGTH (ft)
1. Ashlan Avenue / Fowler Avenue	NB Left	175	**2 @ 250**
	NB Right	100	100
	SB Left	325	**2 @ 325**
	SB Right	100	**125**
	EB Left	325	**2 @ 325**
	WB Left	175	**2 @ 175**
2. Dakota Avenue / Fowler Avenue	NB Left	125	125
	NB Right	100	100
	SB Left	75	75
	SB Right	75	75
3. Shields Avenue / Fowler Avenue	NB Left	250	250
	NB Right	150	150
	SB Left	250	250
	SB Right	150	150
	EB Left	250	**400**
	EB Right	150	150
	WB Left	275	275
	WB Right	225	225

BOLD denotes change in storage length

4.2 Equitable Share Responsibility

The signalization of the Dakota Avenue and Fowler Avenue intersection is included in the City of Fresno's Traffic Signal Mitigation Impact Fees (TSMI Fee). The City of Fresno Master Fee Schedule was used to determine the TSMI Fee for the Project. The TSMI Fee shown in Table 4-3 was calculated using the charge rate of $475 per dwelling unit (D.U.).

Table 4-3
Traffic Signal Mitigation Impact Fee

INTERSECTIONS	RATE FOR SINGLE-FAMILY RESIDENTIAL (per D.U.)	PROJECT SIZE (D.U.)	TSMI FEE
Dakota Avenue / Fowler Avenue	$475	145	$68,875.00

The Project will be required to contribute a fair share towards the costs of improvements that are identified for the Cumulative Year 2042 scenarios. The intent of determining the equitable responsibility for the improvements identified above for the Cumulative Year 2042 scenarios, is to provide a starting point for early discussions to address traffic mitigation equitability and to calculate the equitable share for mitigating traffic impacts.

The formula used to calculate the equitable share responsibility to City of Fresno facilities is as follows:

Equitable Share = (Project Trips)/(Future Year Plus Approved Project Traffic - Existing Traffic)

Table 4-4 shows the equitable share responsibility to City of Fresno Facilities. The equitable share responsibility shown in Table 4-4 is the result of LOS enhancements related to capacity.

Table 4-4
Equitable Share Responsibility

INTERSECTION	PEAK HOUR	EXISTING PROJECT TRIPS	PROJECT TRIPS	CUMULATIVE 2042 PLUS PROJECT TRIPS	FAIR SHARE PERCENTAGE
1. Ashlan Aavenue and Fowler Avenue	AM	2666	45	4078	3.19%
	PM	3242	62	4975	3.58%

Appendix-A

General Plan and Development Code Update

It should be noted that this traditional methodology used to analyze the roadway system does not consider the potential impact on walking, bicycling, and transit. Pedestrians, bicyclists, and transit riders are all users of the roadway system but may not be fully recognized in the traffic operations analysis and the calculation of LOS. The LOS thresholds in Table 5.14-2 are based on driver's comfort and convenience. Identifying the need for roadway improvements based on the resulting roadway LOS can have unintended impacts to other modes such as increasing the walking time for pedestrians. In evaluating the roadway system, a lower vehicle LOS may be desired when balanced against other community values related to resource protection, social equity, economic development, and consideration of pedestrians, bicyclists, and transit users.

Table 5.14-2: Roadway Functional Class and Peak Hour Level-of-Service Thresholds

Functional Class	Median	Lanes	Peak Hour Level of Service Capacity Threshold				
			A	B	C	D	E
Freeway	N/A[1]	4	2,720	4,460	6,630	7,720	8,630
		3+Aux[2]	2,360	3,860	5,640	6,730	7,530
		3	2,000	3,270	4,660	5,740	6,430
		2+Aux	1,650	2,700	3,850	4,760	5,340
		2	1,300	2,130	3,050	3,790	4,260
State Expressway	Divided	6	2,410	3,960	5,730	7,450	8,450
		4	1,610	2,650	3,810	4,960	5,630
		2	810	1,340	1,890	2,470	2,810
City Expressway	Raised Median	6			1,860	6,170	6,520
		5			1,520	5,110	5,430
		4			1,180	4,050	4,340
		2			520	1,910	2,160
Super Arterial	Raised Median	6				4,910	6,240
		5				4,040	5,195
		4				3,170	4,150
Arterial	Raised Median	8			2,120	7,070	7,490
		6			1,560	5,270	5,610
		5			1,280	4,370	4,670
		4			1,000	3,470	3,730
		3			720	2,555	2,795
		2			440	1,640	1,860
	TWLTL[3]	4			940	3,290	3,550
		2			420	1,550	1,760

Functional Class	Median	Lanes	Peak Hour Level of Service Capacity Threshold				
			A	B	C	D	E
	Undivided	4			770	2,740	2,980
		2			340	1,270	1,480
Collector	TWLTL	4			940	3,290	3,550
		2			420	1,550	1,760
	Undivided	4			770	2,740	2,980
		2			340	1,270	1,480
One-Way	Undivided	3		1,960	2,240	2,430	2,610
		2		1,250	1,490	1,620	1,740
		1		550	740	800	870
Rural State Highway	Undivided	2	310	570	1,020	1,730	2,470
Rural Arterial	Divided	4			1,950	3,580	3,780
	Undivided	2			570	1,230	1,310
Rural Collector/Local	Undivided	2			700	930	1,000

Notes:
[1] N/A - Not applicable for operational class
[2] Aux - Auxiliary Lane
[3] TWLTL – Two-way Left-turn Lane
- LOS is not achievable because of type of facility.
Source: Fehr & Peers 2012.

Exhibit 5.14-2 shows existing AM peak hour traffic volumes (two-way total) and LOS (See Appendix H-3 for detail) and Exhibit 5.14-3 shows existing PM peak hour traffic volumes (two-way total) and LOS (See Appendix H-4 for detail). Exhibit 5.14-4 illustrates the planned roadway number of lanes.

Most roadways operate at LOS D or better during the AM and PM peak hours, except for the following, which operate at LOS E and F:

City of Fresno

- Willow Avenue – Copper to Behymer Avenue (LOS E during the PM peak hour)
- Willow Avenue – Behymer Avenue to Shepherd Avenue (LOS F during the PM peak hour)
- Golden State Boulevard – Shaw Avenue to Swift Avenue (LOS F during the PM peak hour)
- Golden State Boulevard – Motel Drive to Ashlan Avenue (LOS E during the PM peak hour)
- Nees Avenue – Jordan Avenue to Paula Avenue (LOS E during the PM peak hour)
- Cornelia Avenue – Ashlan Avenue to Griffith Way (LOS E during the PM peak hour)
- Marks Avenue – Dakota Avenue to Weber Avenue (LOS E during the PM peak hour)
- Clinton Avenue – Valentine Avenue to Marks Avenue (LOS F during the PM peak hour)

Appendix-B

Traffic Counts

Prepared by National Data & Surveying Services

N Fowler Ave & Ashlan Ave

Peak Hour Turning Movement Count

ID: 21-090141-002
City: Clovis

Day: Wednesday
Date: 12/15/2021

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (N Fowler Ave)

AM	115	410	131	67	759	AM
NOON	0	0	0	0	0	NOON
PM	136	652	261	86	882	PM
	1	2	1	0		

EASTBOUND (Ashlan Ave)

AM	NOON	PM	
828	0	741	
5	0	23	0
161	0	174	1
306	0	498	2
65	0	131	0
AM	NOON	PM	

WESTBOUND (Ashlan Ave)

PM	NOON	AM	
101	0	122	0
416	0	585	2
109	0	150	1
62	0	47	0
898	0	573	
PM	NOON	AM	

CONTROL

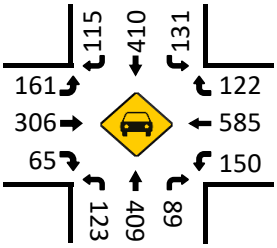
Signalized

TEV	2803 AM	0 NOON	3442 PM
PHF	0.95		0.98

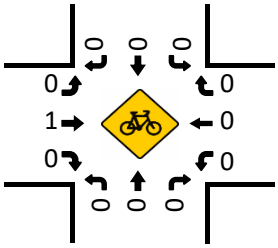
NORTHBOUND (N Fowler Ave)

PM	921	29	166	521	77	PM
NOON	0	0	0	0	0	NOON
AM	643	18	123	409	89	AM
		0	1	2	1	

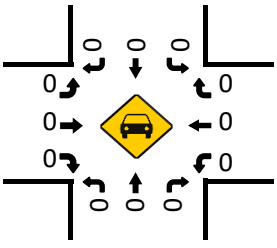
Totals (AM)



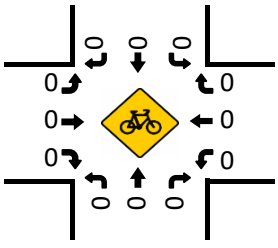
Total Bikes (AM)



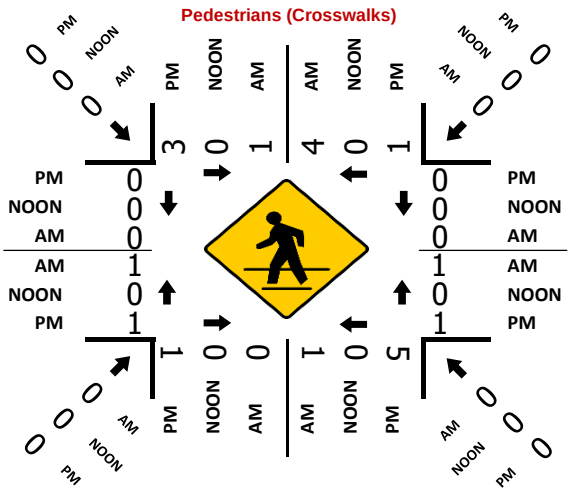
Totals (NOON)



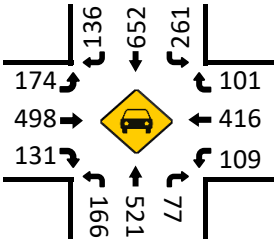
Total Bikes (NOON)



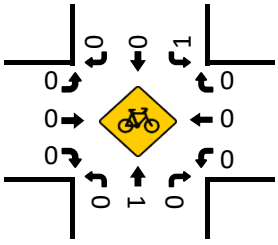
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Fowler Ave & E Dakota Ave

Peak Hour Turning Movement Count

ID: 21-090141-001
City: Fresno

Day: Wednesday
Date: 12/15/2021

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

N Fowler Ave — SOUTHBOUND

	Right	Thru	Left	U-Turn	Exiting
AM	32	615	28	0	541
NOON	0	0	0	0	0
PM	68	593	73	0	722
Lanes	1	2	1	0	

E Dakota Ave — EASTBOUND

	AM	NOON	PM	Lanes
Exiting	48	0	104	
U-Turn	0	0	0	0
Left	74	0	76	0
Thru	16	0	6	1
Right	54	0	39	0

E Dakota Ave — WESTBOUND

	PM	NOON	AM	Lanes
Right	29	0	34	0
Thru	7	0	5	1
Left	7	0	28	0
U-Turn	0	0	0	0
Exiting	84	0	71	

N Fowler Ave — NORTHBOUND

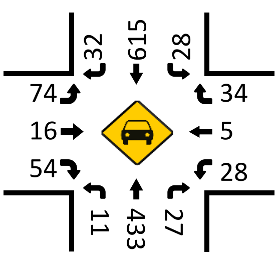
	Exiting	U-Turn	Left	Thru	Right
Lanes		0	1	1	1
PM	640	1	29	617	5
NOON	0	0	0	0	0
AM	698	1	11	433	27

CONTROL

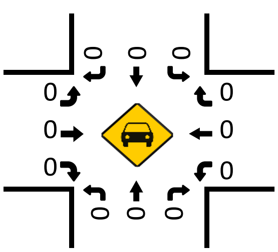
4-Way Stop

	AM	NOON	PM
TEV	1358	0	1550
PHF	0.95		0.96

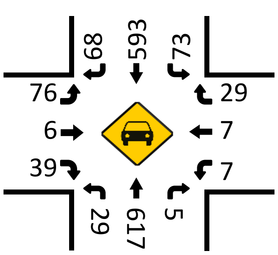
Totals (AM)



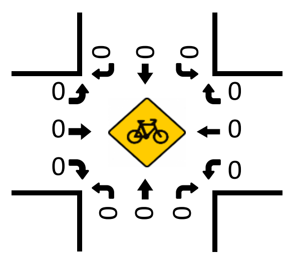
Totals (NOON)



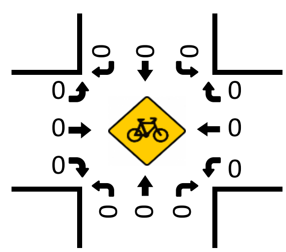
Totals (PM)



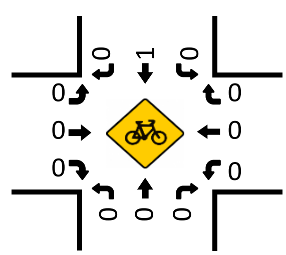
Total Bikes (AM)



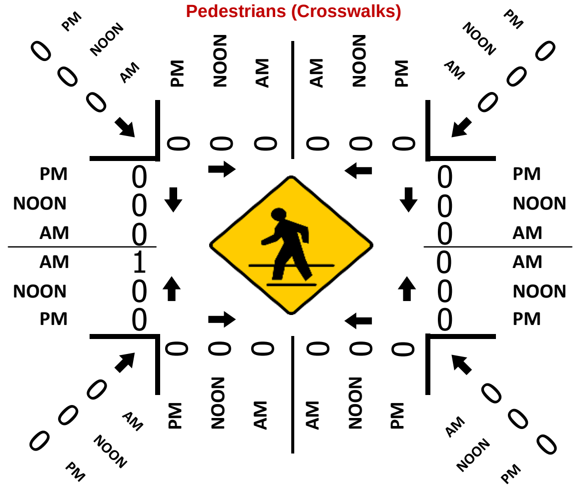
Total Bikes (NOON)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

N Fowler Ave & E Shields Ave

Peak Hour Turning Movement Count

ID: 21-090141-003
City: Fresno

Day: Wednesday
Date: 12/15/2021

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND (N Fowler Ave)

AM	287	404	62	5	404 AM
NOON	0	0	0	0	0 NOON
PM	137	348	117	13	722 PM
	1	2	1	0	

EASTBOUND (E Shields Ave)

AM	NOON	PM	
1072	0	496	
10	0	25	0
75	0	205	1
241	0	540	2
30	0	67	1

WESTBOUND (E Shields Ave)

	PM	NOON	AM
1	50	0	43
2	248	0	693
1	86	0	139
0	2	0	0
	843	0	388

NORTHBOUND (N Fowler Ave)

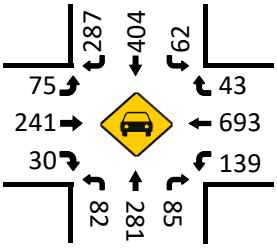
	0	1	2	1	
PM	514	13	86	454	184 PM
NOON	0	0	0	0	0 NOON
AM	580	7	82	281	85 AM

CONTROL

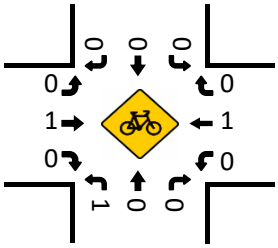
Signalized

TEV	2444 AM	0 NOON	2575 PM
PHF	0.96		0.96

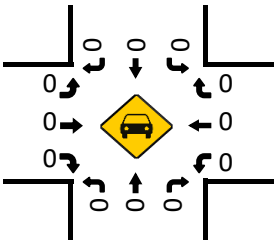
Totals (AM)



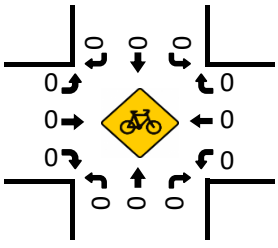
Total Bikes (AM)



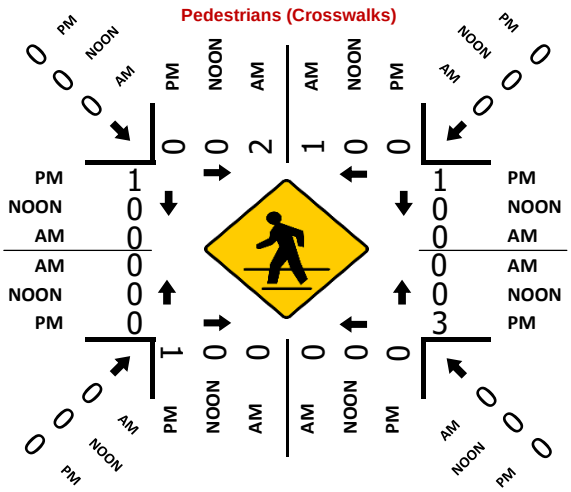
Totals (NOON)



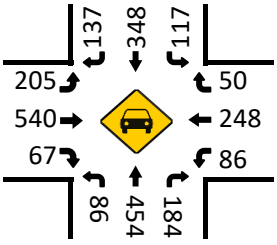
Total Bikes (NOON)



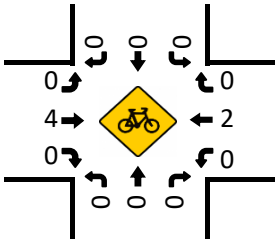
Pedestrians (Crosswalks)



Totals (PM)



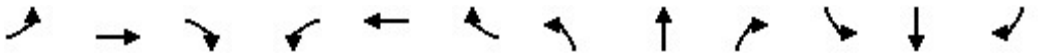
Total Bikes (PM)



Appendix-C

Capacity Analysis Worksheets

Existing Peak Hour Traffic Count
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	306	65	150	585	122	123	409	89	131	410	115
Future Volume (veh/h)	161	306	65	150	585	122	123	409	89	131	410	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	175	333	71	163	636	133	134	445	97	142	446	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	697	147	194	698	146	169	881	393	178	900	402
Arrive On Green	0.11	0.24	0.24	0.11	0.24	0.24	0.10	0.25	0.25	0.10	0.26	0.26
Sat Flow, veh/h	1767	2898	610	1767	2903	606	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	175	201	203	163	386	383	134	445	97	142	446	125
Grp Sat Flow(s),veh/h/ln	1767	1763	1746	1767	1763	1746	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.9	7.8	8.0	7.3	17.1	17.1	6.0	8.7	4.0	6.3	8.7	5.2
Cycle Q Clear(g_c), s	7.9	7.8	8.0	7.3	17.1	17.1	6.0	8.7	4.0	6.3	8.7	5.2
Prop In Lane	1.00		0.35	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	424	420	194	424	420	169	881	393	178	900	402
V/C Ratio(X)	0.90	0.47	0.48	0.84	0.91	0.91	0.79	0.51	0.25	0.80	0.50	0.31
Avail Cap(c_a), veh/h	194	428	424	194	428	424	269	881	393	313	900	402
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	26.1	26.2	35.1	29.6	29.7	35.5	25.8	24.1	35.3	25.5	24.2
Incr Delay (d2), s/veh	38.9	0.8	0.9	26.9	23.1	23.6	8.2	2.1	1.5	7.8	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.1	3.1	4.3	9.2	9.2	2.8	3.6	1.5	2.9	3.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	26.9	27.1	61.9	52.7	53.3	43.7	27.9	25.6	43.1	27.4	26.2
LnGrp LOS	E	C	C	E	D	D	D	C	C	D	C	C
Approach Vol, veh/h		579			932			676			713	
Approach Delay, s/veh		41.3			54.5			30.7			30.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	25.9	15.0	25.5	13.5	26.3	15.0	25.5
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	14.2	18.5	8.8	19.5	12.2	20.5	8.8	19.5
Max Q Clear Time (g_c+I1), s	8.3	10.7	9.3	10.0	8.0	10.7	9.9	19.1
Green Ext Time (p_c), s	0.2	1.8	0.0	1.4	0.1	2.2	0.0	0.2

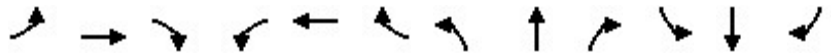
Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	65.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	16	54	28	5	34	11	433	27	28	615	32
Future Vol, veh/h	74	16	54	28	5	34	11	433	27	28	615	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	80	17	59	30	5	37	12	471	29	30	668	35
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	14.8	12.6	32.1	104.9
HCM LOS	B	B	D	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	51%	42%	100%	0%	0%
Vol Thru, %	0%	100%	0%	11%	7%	0%	100%	0%
Vol Right, %	0%	0%	100%	38%	51%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	433	27	144	67	28	615	32
LT Vol	11	0	0	74	28	28	0	0
Through Vol	0	433	0	16	5	0	615	0
RT Vol	0	0	27	54	34	0	0	32
Lane Flow Rate	12	471	29	157	73	30	668	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.023	0.832	0.046	0.335	0.16	0.057	1.164	0.054
Departure Headway (Hd)	7.144	6.632	5.916	8.067	8.318	6.776	6.266	5.553
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	504	551	609	449	434	528	582	644
Service Time	4.844	4.332	3.616	5.767	6.018	4.519	4.009	3.295
HCM Lane V/C Ratio	0.024	0.855	0.048	0.35	0.168	0.057	1.148	0.054
HCM Control Delay	10	34.1	8.9	14.8	12.6	9.9	114.2	8.6
HCM Lane LOS	A	D	A	B	B	A	F	A
HCM 95th-tile Q	0.1	8.5	0.1	1.5	0.6	0.2	22.7	0.2

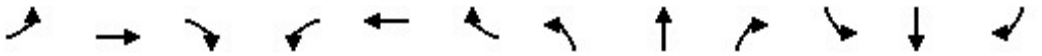


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	241	30	139	693	43	82	281	85	62	404	287
Future Volume (veh/h)	75	241	30	139	693	43	82	281	85	62	404	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	82	262	33	151	753	47	89	305	92	67	439	312
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	115	835	373	191	986	440	303	1187	530	400	1187	530
Arrive On Green	0.07	0.24	0.24	0.11	0.28	0.28	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	706	3526	1572	980	3526	1572
Grp Volume(v), veh/h	82	262	33	151	753	47	89	305	92	67	439	312
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	706	1763	1572	980	1763	1572
Q Serve(g_s), s	2.5	3.3	0.9	4.6	10.7	1.2	6.0	3.4	2.3	2.9	5.2	9.0
Cycle Q Clear(g_c), s	2.5	3.3	0.9	4.6	10.7	1.2	11.1	3.4	2.3	6.3	5.2	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	835	373	191	986	440	303	1187	530	400	1187	530
V/C Ratio(X)	0.71	0.31	0.09	0.79	0.76	0.11	0.29	0.26	0.17	0.17	0.37	0.59
Avail Cap(c_a), veh/h	162	1161	518	201	1239	553	303	1187	530	400	1187	530
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.2	16.2	23.8	18.0	14.6	17.9	13.2	12.8	15.5	13.7	15.0
Incr Delay (d2), s/veh	8.3	0.2	0.1	18.4	2.2	0.1	2.5	0.5	0.7	0.9	0.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	0.3	2.6	3.8	0.4	1.0	1.2	0.7	0.6	1.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	17.4	16.3	42.2	20.3	14.7	20.4	13.7	13.5	16.4	14.6	19.7
LnGrp LOS	C	B	B	D	C	B	C	B	B	B	B	B
Approach Vol, veh/h		377			951			486			818	
Approach Delay, s/veh		20.8			23.5			14.9			16.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	11.7	18.7	24.2	9.4	21.1
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	6.2	18.0	18.4	5.0	19.2
Max Q Clear Time (g_c+I1), s	13.1	6.6	5.3	11.0	4.5	12.7
Green Ext Time (p_c), s	1.3	0.0	1.2	2.5	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Existing Peak Hour Traffic Count
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	498	131	109	416	101	166	521	77	261	652	136
Future Volume (veh/h)	174	498	131	109	416	101	166	521	77	261	652	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	189	541	142	118	452	110	180	566	84	284	709	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	226	648	169	149	537	130	217	801	357	323	1012	451
Arrive On Green	0.13	0.23	0.23	0.08	0.19	0.19	0.12	0.23	0.23	0.18	0.29	0.29
Sat Flow, veh/h	1767	2765	723	1767	2816	680	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	189	344	339	118	282	280	180	566	84	284	709	148
Grp Sat Flow(s),veh/h/ln	1767	1763	1725	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	8.7	15.5	15.6	5.5	12.9	13.1	8.3	12.4	3.6	13.1	15.0	6.2
Cycle Q Clear(g_c), s	8.7	15.5	15.6	5.5	12.9	13.1	8.3	12.4	3.6	13.1	15.0	6.2
Prop In Lane	1.00		0.42	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	413	404	149	336	330	217	801	357	323	1012	451
V/C Ratio(X)	0.84	0.83	0.84	0.79	0.84	0.85	0.83	0.71	0.24	0.88	0.70	0.33
Avail Cap(c_a), veh/h	271	451	442	199	380	373	275	801	357	370	1012	451
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	30.4	30.5	37.6	32.6	32.7	35.8	29.7	26.4	33.3	26.6	23.5
Incr Delay (d2), s/veh	17.3	11.8	12.5	14.6	13.9	15.2	15.4	5.2	1.5	19.2	4.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	7.3	7.3	2.8	6.3	6.4	4.3	5.4	1.4	6.9	6.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	42.2	43.0	52.2	46.5	47.9	51.2	34.9	27.9	52.5	30.6	25.4
LnGrp LOS	D	D	D	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		872			680			830			1141	
Approach Delay, s/veh		44.8			48.0			37.7			35.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	24.8	13.2	25.8	14.8	29.8	16.9	22.1
Change Period (Y+Rc), s	4.5	5.8	6.2	6.2	4.5	5.8	6.2	6.2
Max Green Setting (Gmax), s	17.5	19.0	9.4	21.4	13.0	23.5	12.8	18.0
Max Q Clear Time (g_c+I1), s	15.1	14.4	7.5	17.6	10.3	17.0	10.7	15.1
Green Ext Time (p_c), s	0.2	1.6	0.0	1.3	0.1	2.6	0.1	0.9

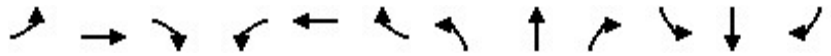
Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	80.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	6	39	7	7	29	29	617	5	73	593	68
Future Vol, veh/h	76	6	39	7	7	29	29	617	5	73	593	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	83	7	42	8	8	32	32	671	5	79	645	74
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	14.4	12	109.5	69.8
HCM LOS	B	B	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	63%	16%	100%	0%	0%
Vol Thru, %	0%	100%	0%	5%	16%	0%	100%	0%
Vol Right, %	0%	0%	100%	32%	67%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	617	5	121	43	73	593	68
LT Vol	29	0	0	76	7	73	0	0
Through Vol	0	617	0	6	7	0	593	0
RT Vol	0	0	5	39	29	0	0	68
Lane Flow Rate	32	671	5	132	47	79	645	74
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.059	1.165	0.008	0.29	0.101	0.144	1.076	0.111
Departure Headway (Hd)	6.902	6.393	5.681	8.356	8.326	6.824	6.315	5.603
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	570	634	433	433	528	580	644
Service Time	4.602	4.093	3.381	6.056	6.026	4.524	4.015	3.303
HCM Lane V/C Ratio	0.061	1.177	0.008	0.305	0.109	0.15	1.112	0.115
HCM Control Delay	10	115	8.4	14.4	12	10.7	84	9
HCM Lane LOS	A	F	A	B	B	B	F	A
HCM 95th-tile Q	0.2	22.5	0	1.2	0.3	0.5	18.1	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	540	67	86	248	50	86	454	184	117	348	137
Future Volume (veh/h)	205	540	67	86	248	50	86	454	184	117	348	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	223	587	73	93	270	54	93	493	200	127	378	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	277	855	381	125	552	246	377	1244	555	323	1244	555
Arrive On Green	0.16	0.24	0.24	0.07	0.16	0.16	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	869	3526	1572	745	3526	1572
Grp Volume(v), veh/h	223	587	73	93	270	54	93	493	200	127	378	149
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	869	1763	1572	745	1763	1572
Q Serve(g_s), s	6.3	7.9	1.9	2.7	3.6	1.6	4.5	5.5	4.9	8.1	4.1	3.5
Cycle Q Clear(g_c), s	6.3	7.9	1.9	2.7	3.6	1.6	8.6	5.5	4.9	13.5	4.1	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	855	381	125	552	246	377	1244	555	323	1244	555
V/C Ratio(X)	0.80	0.69	0.19	0.74	0.49	0.22	0.25	0.40	0.36	0.39	0.30	0.27
Avail Cap(c_a), veh/h	380	1359	606	308	1217	543	377	1244	555	323	1244	555
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	17.9	15.7	23.8	20.1	19.2	15.3	12.7	12.5	17.8	12.2	12.1
Incr Delay (d2), s/veh	8.6	1.0	0.2	8.3	0.7	0.4	1.6	0.9	1.8	3.6	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	0.6	1.3	1.3	0.5	0.9	1.8	1.6	1.4	1.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	18.9	15.9	32.1	20.8	19.6	16.9	13.6	14.3	21.4	12.9	13.3
LnGrp LOS	C	B	B	C	C	B	B	B	B	C	B	B
Approach Vol, veh/h		883			417			786			654	
Approach Delay, s/veh		21.4			23.1			14.2			14.6	
Approach LOS		C			C			B			B	

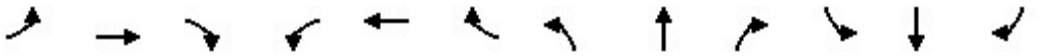
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	9.5	18.4	24.2	14.0	14.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	9.1	20.1	18.4	11.2	18.0
Max Q Clear Time (g_c+I1), s	10.6	4.7	9.9	15.5	8.3	5.6
Green Ext Time (p_c), s	2.6	0.1	2.8	1.0	0.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Existing Plus Project Peak Hour Traffic
AM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	306	68	151	585	122	131	432	91	131	418	115
Future Volume (veh/h)	161	306	68	151	585	122	131	432	91	131	418	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	175	333	74	164	636	133	142	470	99	142	454	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	211	694	152	200	682	142	176	926	413	176	926	413
Arrive On Green	0.12	0.24	0.24	0.11	0.24	0.24	0.10	0.26	0.26	0.10	0.26	0.26
Sat Flow, veh/h	1767	2874	631	1767	2903	606	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	175	203	204	164	386	383	142	470	99	142	454	125
Grp Sat Flow(s),veh/h/ln	1767	1763	1742	1767	1763	1746	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.7	7.9	8.1	7.3	17.1	17.2	6.3	9.1	4.0	6.3	8.7	5.1
Cycle Q Clear(g_c), s	7.7	7.9	8.1	7.3	17.1	17.2	6.3	9.1	4.0	6.3	8.7	5.1
Prop In Lane	1.00		0.36	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	425	420	200	414	410	176	926	413	176	926	413
V/C Ratio(X)	0.83	0.48	0.49	0.82	0.93	0.93	0.81	0.51	0.24	0.81	0.49	0.30
Avail Cap(c_a), veh/h	216	425	420	216	414	410	188	926	413	188	926	413
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	26.0	26.1	34.7	30.0	30.0	35.3	25.1	23.2	35.3	25.0	23.6
Incr Delay (d2), s/veh	22.5	0.8	0.9	20.5	27.7	28.4	21.4	2.0	1.4	21.4	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.1	3.1	4.0	9.7	9.7	3.6	3.7	1.5	3.6	3.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	26.8	27.0	55.2	57.7	58.4	56.7	27.1	24.6	56.7	26.8	25.5
LnGrp LOS	E	C	C	E	E	E	E	C	C	E	C	C
Approach Vol, veh/h		582			933			711			721	
Approach Delay, s/veh		35.9			57.5			32.7			32.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	26.8	15.2	25.5	12.4	26.8	15.7	25.0
Change Period (Y+Rc), s	4.5	5.8	6.2	6.2	4.5	5.8	6.2	6.2
Max Green Setting (Gmax), s	8.5	20.2	9.8	18.8	8.5	20.2	9.8	18.8
Max Q Clear Time (g_c+I1), s	8.3	11.1	9.3	10.1	8.3	10.7	9.7	19.2
Green Ext Time (p_c), s	0.0	2.1	0.0	1.4	0.0	2.2	0.0	0.0

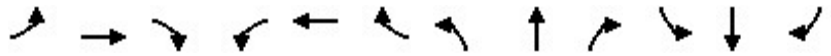
Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	78.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	16	54	54	5	67	11	433	27	40	615	32
Future Vol, veh/h	74	16	54	54	5	67	11	433	27	40	615	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	80	17	59	59	5	73	12	471	29	43	668	35
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	15.8	14.9	39.9	129.2
HCM LOS	C	B	E	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	51%	43%	100%	0%	0%
Vol Thru, %	0%	100%	0%	11%	4%	0%	100%	0%
Vol Right, %	0%	0%	100%	38%	53%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	433	27	144	126	40	615	32
LT Vol	11	0	0	74	54	40	0	0
Through Vol	0	433	0	16	5	0	615	0
RT Vol	0	0	27	54	67	0	0	32
Lane Flow Rate	12	471	29	157	137	43	668	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.881	0.049	0.349	0.303	0.087	1.235	0.057
Departure Headway (Hd)	7.654	7.139	6.418	8.566	8.517	7.165	6.653	5.935
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	513	561	423	425	497	541	598
Service Time	5.354	4.839	4.118	6.266	6.217	4.96	4.447	3.728
HCM Lane V/C Ratio	0.026	0.918	0.052	0.371	0.322	0.087	1.235	0.059
HCM Control Delay	10.5	42.6	9.4	15.8	14.9	10.7	143.2	9.1
HCM Lane LOS	B	E	A	C	B	B	F	A
HCM 95th-tile Q	0.1	9.7	0.2	1.5	1.3	0.3	25.4	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	241	30	139	693	43	82	285	85	63	417	301
Future Volume (veh/h)	80	241	30	139	693	43	82	285	85	63	417	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	87	262	33	151	753	47	89	310	92	68	453	327
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	118	838	374	191	982	438	295	1186	529	397	1186	529
Arrive On Green	0.07	0.24	0.24	0.11	0.28	0.28	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	687	3526	1572	975	3526	1572
Grp Volume(v), veh/h	87	262	33	151	753	47	89	310	92	68	453	327
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	687	1763	1572	975	1763	1572
Q Serve(g_s), s	2.6	3.3	0.9	4.6	10.7	1.2	6.2	3.5	2.3	3.0	5.4	9.5
Cycle Q Clear(g_c), s	2.6	3.3	0.9	4.6	10.7	1.2	11.6	3.5	2.3	6.5	5.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	838	374	191	982	438	295	1186	529	397	1186	529
V/C Ratio(X)	0.73	0.31	0.09	0.79	0.77	0.11	0.30	0.26	0.17	0.17	0.38	0.62
Avail Cap(c_a), veh/h	168	1160	517	200	1224	546	295	1186	529	397	1186	529
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.2	16.2	23.8	18.1	14.7	18.2	13.2	12.8	15.6	13.8	15.2
Incr Delay (d2), s/veh	9.5	0.2	0.1	18.5	2.3	0.1	2.6	0.5	0.7	0.9	0.9	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.2	0.3	2.6	3.9	0.4	1.0	1.2	0.7	0.7	1.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	17.4	16.3	42.3	20.4	14.8	20.8	13.7	13.5	16.5	14.8	20.6
LnGrp LOS	C	B	B	D	C	B	C	B	B	B	B	C
Approach Vol, veh/h		382			951			491			848	
Approach Delay, s/veh		21.2			23.6			15.0			17.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	11.7	18.8	24.2	9.5	21.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	6.2	18.0	18.4	5.2	19.0
Max Q Clear Time (g_c+I1), s	13.6	6.6	5.3	11.5	4.6	12.7
Green Ext Time (p_c), s	1.2	0.0	1.2	2.4	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	49	67	0	0	63
Future Vol, veh/h	21	49	67	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	53	73	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	172	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	99	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1520	-	-	-	816	986
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	922	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1520	-	-	-	803	986
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	922	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1520	-	-	-	986
HCM Lane V/C Ratio	0.015	-	-	-	0.069
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	67	6	18	0
Future Vol, veh/h	0	49	67	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	53	73	7	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	130	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1512	-	-	-	862	981
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	967	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1512	-	-	-	862	981
Mov Cap-2 Maneuver	-	-	-	-	862	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	967	-

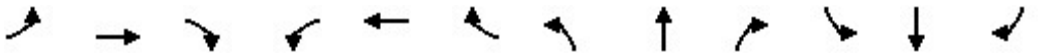
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	862
HCM Lane V/C Ratio	-	-	-	-	0.023
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Existing Plus Project Peak Hour Traffic
PM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	498	141	111	416	101	172	537	78	261	679	136
Future Volume (veh/h)	174	498	141	111	416	101	172	537	78	261	679	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	189	541	153	121	452	110	187	584	85	284	738	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	224	622	175	151	529	128	221	811	362	320	1008	450
Arrive On Green	0.13	0.23	0.23	0.09	0.19	0.19	0.13	0.23	0.23	0.18	0.29	0.29
Sat Flow, veh/h	1767	2716	765	1767	2816	680	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	189	350	344	121	282	280	187	584	85	284	738	148
Grp Sat Flow(s),veh/h/ln	1767	1763	1718	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.1	16.7	16.9	5.9	13.5	13.7	9.1	13.4	3.8	13.7	16.5	6.5
Cycle Q Clear(g_c), s	9.1	16.7	16.9	5.9	13.5	13.7	9.1	13.4	3.8	13.7	16.5	6.5
Prop In Lane	1.00		0.45	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	404	394	151	331	326	221	811	362	320	1008	450
V/C Ratio(X)	0.85	0.87	0.87	0.80	0.85	0.86	0.85	0.72	0.23	0.89	0.73	0.33
Avail Cap(c_a), veh/h	238	444	432	158	363	357	226	811	362	348	1008	450
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	32.4	32.5	39.3	34.3	34.4	37.4	31.1	27.4	34.9	28.2	24.6
Incr Delay (d2), s/veh	22.4	15.5	16.5	24.2	16.2	17.7	24.1	5.5	1.5	22.1	4.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.3	8.2	3.4	6.8	6.9	5.2	5.9	1.5	7.5	7.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	48.0	49.0	63.5	50.5	52.1	61.5	36.5	28.9	57.0	32.9	26.6
LnGrp LOS	E	D	D	E	D	D	E	D	C	E	C	C
Approach Vol, veh/h		883			683			856			1170	
Approach Delay, s/veh		50.9			53.5			41.2			37.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	25.9	13.7	26.2	16.7	30.8	17.3	22.6
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	17.2	19.0	7.8	22.0	11.2	25.0	11.8	18.0
Max Q Clear Time (g_c+I1), s	15.7	15.4	7.9	18.9	11.1	18.5	11.1	15.7
Green Ext Time (p_c), s	0.1	1.3	0.0	1.2	0.0	2.7	0.0	0.7

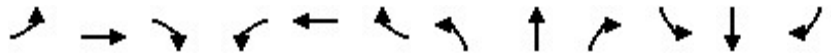
Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	93.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	6	39	25	7	51	29	617	35	111	593	68
Future Vol, veh/h	76	6	39	25	7	51	29	617	35	111	593	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	83	7	42	27	8	55	32	671	38	121	645	74
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	15.2	13.5	126	86.5
HCM LOS	C	B	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	63%	30%	100%	0%	0%
Vol Thru, %	0%	100%	0%	5%	8%	0%	100%	0%
Vol Right, %	0%	0%	100%	32%	61%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	617	35	121	83	111	593	68
LT Vol	29	0	0	76	25	111	0	0
Through Vol	0	617	0	6	7	0	593	0
RT Vol	0	0	35	39	51	0	0	68
Lane Flow Rate	32	671	38	132	90	121	645	74
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.062	1.221	0.062	0.301	0.202	0.231	1.145	0.117
Departure Headway (Hd)	7.31	6.799	6.083	8.776	8.641	7.223	6.711	5.994
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	537	592	412	418	501	548	602
Service Time	5.01	4.499	3.783	6.476	6.341	4.923	4.411	3.694
HCM Lane V/C Ratio	0.065	1.25	0.064	0.32	0.215	0.242	1.177	0.123
HCM Control Delay	10.5	138	9.2	15.2	13.5	12.1	109.3	9.5
HCM Lane LOS	B	F	A	C	B	B	F	A
HCM 95th-tile Q	0.2	24.5	0.2	1.2	0.7	0.9	20.8	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	540	67	86	248	51	86	469	184	118	357	146
Future Volume (veh/h)	220	540	67	86	248	51	86	469	184	118	357	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	587	73	93	270	55	93	510	200	128	388	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	855	381	125	519	231	371	1244	555	317	1244	555
Arrive On Green	0.17	0.24	0.24	0.07	0.15	0.15	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	853	3526	1572	733	3526	1572
Grp Volume(v), veh/h	239	587	73	93	270	55	93	510	200	128	388	159
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	853	1763	1572	733	1763	1572
Q Serve(g_s), s	6.8	7.9	1.9	2.7	3.7	1.6	4.6	5.7	4.9	8.3	4.2	3.8
Cycle Q Clear(g_c), s	6.8	7.9	1.9	2.7	3.7	1.6	8.8	5.7	4.9	14.1	4.2	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	855	381	125	519	231	371	1244	555	317	1244	555
V/C Ratio(X)	0.81	0.69	0.19	0.74	0.52	0.24	0.25	0.41	0.36	0.40	0.31	0.29
Avail Cap(c_a), veh/h	380	1359	606	308	1217	543	371	1244	555	317	1244	555
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	17.9	15.7	23.8	20.5	19.7	15.5	12.8	12.5	18.1	12.3	12.1
Incr Delay (d2), s/veh	10.0	1.0	0.2	8.3	0.8	0.5	1.6	1.0	1.8	3.8	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.7	0.6	1.3	1.3	0.5	0.9	1.9	1.6	1.5	1.4	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	18.9	15.9	32.1	21.4	20.2	17.1	13.8	14.3	21.9	12.9	13.4
LnGrp LOS	C	B	B	C	C	C	B	B	B	C	B	B
Approach Vol, veh/h		899			418			803			675	
Approach Delay, s/veh		21.9			23.6			14.3			14.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	9.5	18.4	24.2	14.5	13.5
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	9.1	20.1	18.4	11.2	18.0
Max Q Clear Time (g_c+I1), s	10.8	4.7	9.9	16.1	8.8	5.7
Green Ext Time (p_c), s	2.6	0.1	2.8	0.9	0.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	84	43	0	0	42
Future Vol, veh/h	71	84	43	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	91	47	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	47	0	-	0	292	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1554	-	-	-	697	1019
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1554	-	-	-	661	1019
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	793	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1554	-	-	-	1019
HCM Lane V/C Ratio	0.05	-	-	-	0.045
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	43	20	12	0
Future Vol, veh/h	0	84	43	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	91	47	22	13	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	69	0	-	0	149	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1526	-	-	-	841	1005
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	930	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1526	-	-	-	841	1005
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	930	-

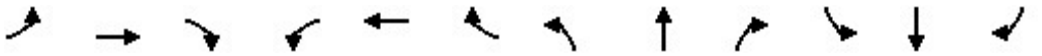
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1526	-	-	-	841
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Near Term Peak Hour Traffic
AM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	312	189	154	597	124	194	534	92	134	567	117
Future Volume (veh/h)	164	312	189	154	597	124	194	534	92	134	567	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	178	339	205	167	649	135	211	580	100	146	616	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	210	522	309	192	683	142	236	992	443	181	881	393
Arrive On Green	0.12	0.24	0.24	0.11	0.23	0.23	0.13	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	1767	2129	1262	1767	2906	604	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	178	280	264	167	393	391	211	580	100	146	616	127
Grp Sat Flow(s),veh/h/ln	1767	1763	1628	1767	1763	1747	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.9	11.4	11.7	7.4	17.6	17.6	9.4	11.3	3.9	6.5	12.7	5.3
Cycle Q Clear(g_c), s	7.9	11.4	11.7	7.4	17.6	17.6	9.4	11.3	3.9	6.5	12.7	5.3
Prop In Lane	1.00		0.78	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	432	399	192	414	411	236	992	443	181	881	393
V/C Ratio(X)	0.85	0.65	0.66	0.87	0.95	0.95	0.89	0.58	0.23	0.81	0.70	0.32
Avail Cap(c_a), veh/h	210	432	399	192	414	411	236	992	443	216	881	393
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	27.1	27.2	35.1	30.1	30.2	34.1	24.7	22.1	35.1	27.3	24.5
Incr Delay (d2), s/veh	26.4	3.3	4.1	32.0	31.5	32.2	31.8	2.5	1.2	17.1	4.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	4.7	4.6	4.7	10.3	10.3	5.8	4.7	1.4	3.5	5.4	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	30.4	31.3	67.1	61.7	62.3	65.9	27.2	23.2	52.3	31.8	26.6
LnGrp LOS	E	C	C	E	E	E	E	C	C	D	C	C
Approach Vol, veh/h		722			951			891			889	
Approach Delay, s/veh		38.3			62.9			35.9			34.5	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	28.3	13.2	25.8	15.2	25.8	14.0	25.0
Change Period (Y+Rc), s	4.5	5.8	4.5	6.2	4.5	5.8	4.5	6.2
Max Green Setting (Gmax), s	9.8	20.9	8.7	19.6	10.7	20.0	9.5	18.8
Max Q Clear Time (g_c+I1), s	8.5	13.3	9.4	13.7	11.4	14.7	9.9	19.6
Green Ext Time (p_c), s	0.0	2.3	0.0	1.5	0.0	2.0	0.0	0.0

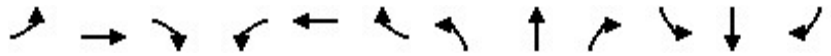
Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	233
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	16	55	55	5	68	11	601	15	40	874	33
Future Vol, veh/h	75	16	55	55	5	68	11	601	15	40	874	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	82	17	60	60	5	74	12	653	16	43	950	36
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	18.1	17	145	353.6
HCM LOS	C	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	51%	43%	100%	0%	0%
Vol Thru, %	0%	100%	0%	11%	4%	0%	100%	0%
Vol Right, %	0%	0%	100%	38%	53%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	601	15	146	128	40	874	33
LT Vol	11	0	0	75	55	40	0	0
Through Vol	0	601	0	16	5	0	874	0
RT Vol	0	0	15	55	68	0	0	33
Lane Flow Rate	12	653	16	159	139	43	950	36
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	1.243	0.028	0.366	0.318	0.088	1.793	0.061
Departure Headway (Hd)	8.299	7.78	7.054	9.836	9.831	7.702	7.186	6.464
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	470	511	368	369	468	513	557
Service Time	5.999	5.48	4.754	7.536	7.531	5.402	4.886	4.164
HCM Lane V/C Ratio	0.028	1.389	0.031	0.432	0.377	0.092	1.852	0.065
HCM Control Delay	11.2	150.8	10	18.1	17	11.1	382.3	9.6
HCM Lane LOS	B	F	A	C	C	B	F	A
HCM 95th-tile Q	0.1	23.3	0.1	1.6	1.3	0.3	55.7	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	296	53	162	750	129	84	365	141	208	522	313
Future Volume (veh/h)	82	296	53	162	750	129	84	365	141	208	522	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	322	58	176	815	140	91	397	153	226	567	340
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	119	859	383	210	1041	464	248	1143	510	333	1143	510
Arrive On Green	0.07	0.24	0.24	0.12	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	610	3526	1572	851	3526	1572
Grp Volume(v), veh/h	89	322	58	176	815	140	91	397	153	226	567	340
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	610	1763	1572	851	1763	1572
Q Serve(g_s), s	2.7	4.2	1.6	5.4	11.8	3.8	7.8	4.8	4.0	13.2	7.2	10.4
Cycle Q Clear(g_c), s	2.7	4.2	1.6	5.4	11.8	3.8	15.0	4.8	4.0	18.0	7.2	10.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	859	383	210	1041	464	248	1143	510	333	1143	510
V/C Ratio(X)	0.75	0.38	0.15	0.84	0.78	0.30	0.37	0.35	0.30	0.68	0.50	0.67
Avail Cap(c_a), veh/h	169	1143	510	210	1226	547	248	1143	510	333	1143	510
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	17.5	16.5	23.9	17.9	15.1	21.2	14.3	14.0	21.8	15.1	16.2
Incr Delay (d2), s/veh	10.7	0.3	0.2	24.7	2.9	0.4	4.1	0.8	1.5	10.7	1.5	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.5	0.5	3.4	4.3	1.2	1.2	1.7	1.4	3.5	2.6	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	17.8	16.7	48.6	20.8	15.5	25.3	15.1	15.6	32.5	16.6	22.9
LnGrp LOS	D	B	B	D	C	B	C	B	B	C	B	C
Approach Vol, veh/h		469			1131			641			1133	
Approach Delay, s/veh		21.1			24.5			16.7			21.7	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	23.8	12.4	19.3	23.8	9.5	22.2
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.0	6.6	18.0	18.0	5.3	19.3
Max Q Clear Time (g_c+I1), s	17.0	7.4	6.2	20.0	4.7	13.8
Green Ext Time (p_c), s	0.4	0.0	1.6	0.0	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	50	68	0	0	63
Future Vol, veh/h	21	50	68	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	54	74	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	74	0	-	0	174	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1519	-	-	-	814	985
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1519	-	-	-	801	985
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	921	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1519	-	-	-	985
HCM Lane V/C Ratio	0.015	-	-	-	0.07
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	50	68	6	18	0
Future Vol, veh/h	0	50	68	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	54	74	7	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	81	0	-	0	132	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1510	-	-	-	860	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1510	-	-	-	860	980
Mov Cap-2 Maneuver	-	-	-	-	860	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	966	-

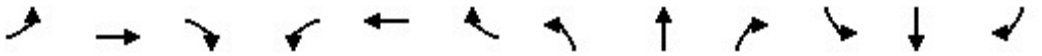
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1510	-	-	-	860
HCM Lane V/C Ratio	-	-	-	-	0.023
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Near Term Peak Hour Traffic
PM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	508	251	111	424	103	253	661	80	266	845	139
Future Volume (veh/h)	177	508	251	111	424	103	253	661	80	266	845	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	192	552	273	121	461	112	275	718	87	289	918	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	531	262	137	563	136	279	874	390	310	936	418
Arrive On Green	0.11	0.23	0.23	0.08	0.20	0.20	0.16	0.25	0.25	0.18	0.27	0.27
Sat Flow, veh/h	1767	2287	1129	1767	2816	679	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	192	425	400	121	287	286	275	718	87	289	918	151
Grp Sat Flow(s),veh/h/ln	1767	1763	1652	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.8	20.9	20.9	6.1	14.0	14.2	14.0	17.3	4.0	14.5	23.3	7.0
Cycle Q Clear(g_c), s	9.8	20.9	20.9	6.1	14.0	14.2	14.0	17.3	4.0	14.5	23.3	7.0
Prop In Lane	1.00		0.68	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	409	384	137	353	347	279	874	390	310	936	418
V/C Ratio(X)	0.99	1.04	1.04	0.88	0.81	0.82	0.99	0.82	0.22	0.93	0.98	0.36
Avail Cap(c_a), veh/h	194	409	384	137	353	347	279	874	390	310	936	418
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	34.6	34.6	41.1	34.4	34.5	37.8	32.0	27.0	36.6	32.8	26.9
Incr Delay (d2), s/veh	60.8	55.0	57.2	43.4	13.7	14.8	50.0	8.6	1.3	33.7	25.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	14.5	13.8	4.2	6.9	7.0	9.6	7.9	1.5	8.8	12.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.8	89.5	91.7	84.4	48.1	49.3	87.8	40.6	28.3	70.2	57.9	29.3
LnGrp LOS	F	F	F	F	D	D	F	D	C	E	E	C
Approach Vol, veh/h		1017			694			1080			1358	
Approach Delay, s/veh		92.5			54.9			51.6			57.3	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	28.1	13.2	27.1	20.0	29.7	16.1	24.2
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	15.8	22.3	7.0	20.9	14.2	23.9	9.9	18.0
Max Q Clear Time (g_c+I1), s	16.5	19.3	8.1	22.9	16.0	25.3	11.8	16.2
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	64.1
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	234.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	6	40	25	7	52	30	823	36	113	799	69
Future Vol, veh/h	78	6	40	25	7	52	30	823	36	113	799	69
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	85	7	43	27	8	57	33	895	39	123	868	75
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	16.5	14.7	292.6	227.9
HCM LOS	C	B	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	63%	30%	100%	0%	0%
Vol Thru, %	0%	100%	0%	5%	8%	0%	100%	0%
Vol Right, %	0%	0%	100%	32%	62%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	823	36	124	84	113	799	69
LT Vol	30	0	0	78	25	113	0	0
Through Vol	0	823	0	6	7	0	799	0
RT Vol	0	0	36	40	52	0	0	69
Lane Flow Rate	33	895	39	135	91	123	868	75
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.064	1.64	0.064	0.306	0.203	0.237	1.553	0.12
Departure Headway (Hd)	7.678	7.165	6.447	9.631	9.561	7.614	7.101	6.382
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	469	519	559	376	378	474	521	566
Service Time	5.378	4.865	4.147	7.331	7.261	5.314	4.801	4.082
HCM Lane V/C Ratio	0.07	1.724	0.07	0.359	0.241	0.259	1.666	0.133
HCM Control Delay	10.9	315.2	9.6	16.5	14.7	12.7	277.2	10
HCM Lane LOS	B	F	A	C	B	B	F	A
HCM 95th-tile Q	0.2	46.8	0.2	1.3	0.7	0.9	42.1	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	595	74	117	292	153	99	565	206	215	461	150
Future Volume (veh/h)	231	595	74	117	292	153	99	565	206	215	461	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	251	647	80	127	317	166	108	614	224	234	501	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	285	779	347	158	524	234	396	1751	781	334	1751	781
Arrive On Green	0.16	0.22	0.22	0.09	0.15	0.15	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	765	3526	1572	651	3526	1572
Grp Volume(v), veh/h	251	647	80	127	317	166	108	614	224	234	501	163
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	765	1763	1572	651	1763	1572
Q Serve(g_s), s	12.5	15.8	3.8	6.3	7.6	9.0	8.7	9.6	7.5	30.8	7.5	5.2
Cycle Q Clear(g_c), s	12.5	15.8	3.8	6.3	7.6	9.0	16.2	9.6	7.5	40.4	7.5	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	779	347	158	524	234	396	1751	781	334	1751	781
V/C Ratio(X)	0.88	0.83	0.23	0.81	0.60	0.71	0.27	0.35	0.29	0.70	0.29	0.21
Avail Cap(c_a), veh/h	298	924	412	188	705	314	396	1751	781	334	1751	781
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	33.5	28.8	40.2	35.8	36.5	18.0	13.8	13.3	26.1	13.3	12.7
Incr Delay (d2), s/veh	24.1	5.6	0.3	19.0	1.1	4.7	1.7	0.6	0.9	11.6	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	6.9	1.4	3.5	3.2	3.6	1.6	3.5	2.6	5.3	2.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	39.1	29.1	59.2	37.0	41.2	19.7	14.4	14.2	37.7	13.7	13.3
LnGrp LOS	E	D	C	E	D	D	B	B	B	D	B	B
Approach Vol, veh/h		978			610			946			898	
Approach Delay, s/veh		43.9			42.7			14.9			19.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	50.5	13.8	25.7	50.5	20.3	19.2
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	39.4	9.6	23.6	39.4	15.2	18.0
Max Q Clear Time (g_c+I1), s	18.2	8.3	17.8	42.4	14.5	11.0
Green Ext Time (p_c), s	5.4	0.0	2.1	0.0	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	86	44	0	0	42
Future Vol, veh/h	71	86	44	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	93	48	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	48	0	-	0	295	48
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1553	-	-	-	694	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	658	1018
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	1018
HCM Lane V/C Ratio	0.05	-	-	-	0.045
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

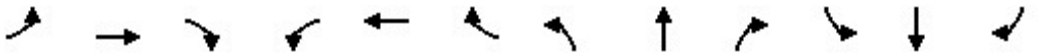
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	86	44	20	12	0
Future Vol, veh/h	0	86	44	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	93	48	22	13	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	152	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	93	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1524	-	-	-	837	1004
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	837	1004
Mov Cap-2 Maneuver	-	-	-	-	837	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1524	-	-	-	837
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	9.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Cumulative Year 2042 AM Peak Without Project Traffic Count



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	464	99	227	887	185	186	620	135	199	621	174
Future Volume (veh/h)	244	464	99	227	887	185	186	620	135	199	621	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	265	504	108	247	964	201	202	674	147	216	675	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	272	923	197	276	934	194	211	751	335	224	778	347
Arrive On Green	0.15	0.32	0.32	0.16	0.32	0.32	0.12	0.21	0.21	0.13	0.22	0.22
Sat Flow, veh/h	1767	2891	616	1767	2905	605	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	265	306	306	247	585	580	202	674	147	216	675	189
Grp Sat Flow(s),veh/h/ln	1767	1763	1745	1767	1763	1747	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	19.4	18.6	18.8	17.8	41.8	41.8	14.8	24.2	10.5	15.8	24.0	13.8
Cycle Q Clear(g_c), s	19.4	18.6	18.8	17.8	41.8	41.8	14.8	24.2	10.5	15.8	24.0	13.8
Prop In Lane	1.00		0.35	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	563	557	276	567	562	211	751	335	224	778	347
V/C Ratio(X)	0.97	0.54	0.55	0.90	1.03	1.03	0.96	0.90	0.44	0.96	0.87	0.54
Avail Cap(c_a), veh/h	272	563	557	397	567	562	211	751	335	224	778	347
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	36.4	36.5	53.8	44.1	44.1	56.9	49.8	44.4	56.4	48.8	44.9
Incr Delay (d2), s/veh	47.4	1.1	1.1	16.9	46.1	46.9	50.1	15.6	4.1	49.5	12.5	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	7.9	7.9	9.0	24.6	24.4	9.4	12.0	4.4	10.0	11.6	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.2	37.5	37.6	70.7	90.2	91.0	107.1	65.4	48.5	106.0	61.3	50.9
LnGrp LOS	F	D	D	E	F	F	F	E	D	F	E	D
Approach Vol, veh/h		877			1412			1023			1080	
Approach Delay, s/veh		57.1			87.1			71.2			68.4	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.3	33.5	26.5	47.7	21.3	34.5	26.2	48.0
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	16.5	27.7	29.2	32.6	15.5	28.7	20.0	41.8
Max Q Clear Time (g_c+I1), s	17.8	26.2	19.8	20.8	16.8	26.0	21.4	43.8
Green Ext Time (p_c), s	0.0	0.7	0.5	2.6	0.0	1.3	0.0	0.0

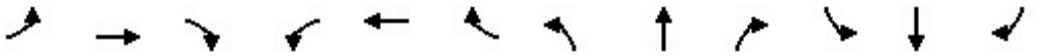
Intersection Summary	
HCM 6th Ctrl Delay	72.8
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	305.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	118	34	86	42	11	52	18	656	8	42	932	51
Future Vol, veh/h	118	34	86	42	11	52	18	656	8	42	932	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	128	37	93	46	12	57	20	713	9	46	1013	55
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	26.6	18.1	229.5	449.9
HCM LOS	D	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	50%	40%	100%	0%	0%
Vol Thru, %	0%	100%	0%	14%	10%	0%	100%	0%
Vol Right, %	0%	0%	100%	36%	50%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	656	8	238	105	42	932	51
LT Vol	18	0	0	118	42	42	0	0
Through Vol	0	656	0	34	11	0	932	0
RT Vol	0	0	8	86	52	0	0	51
Lane Flow Rate	20	713	9	259	114	46	1013	55
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.042	1.449	0.016	0.591	0.276	0.098	2.04	0.101
Departure Headway (Hd)	9.126	8.602	7.868	10.173	11.162	8.466	7.945	7.215
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	395	428	458	357	324	426	466	500
Service Time	6.826	6.302	5.568	7.873	8.862	6.166	5.645	4.915
HCM Lane V/C Ratio	0.051	1.666	0.02	0.725	0.352	0.108	2.174	0.11
HCM Control Delay	12.2	238.1	10.7	26.6	18.1	12.1	493.7	10.7
HCM Lane LOS	B	F	B	D	C	B	F	B
HCM 95th-tile Q	0.1	30.9	0	3.6	1.1	0.3	64.3	0.3

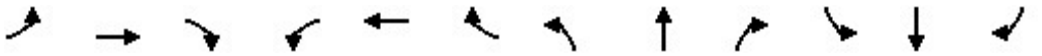


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	386	45	211	1109	65	124	426	129	94	612	435
Future Volume (veh/h)	114	386	45	211	1109	65	124	426	129	94	612	435
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	124	420	49	229	1205	71	135	463	140	102	665	473
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	148	988	441	271	1232	549	184	1180	526	286	1180	526
Arrive On Green	0.08	0.28	0.28	0.15	0.35	0.35	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	491	3526	1572	810	3526	1572
Grp Volume(v), veh/h	124	420	49	229	1205	71	135	463	140	102	665	473
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	491	1763	1572	810	1763	1572
Q Serve(g_s), s	5.2	7.3	1.7	9.5	25.3	2.3	13.5	7.5	4.9	8.3	11.6	21.5
Cycle Q Clear(g_c), s	5.2	7.3	1.7	9.5	25.3	2.3	25.1	7.5	4.9	15.8	11.6	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	988	441	271	1232	549	184	1180	526	286	1180	526
V/C Ratio(X)	0.84	0.43	0.11	0.85	0.98	0.13	0.73	0.39	0.27	0.36	0.56	0.90
Avail Cap(c_a), veh/h	148	988	441	318	1232	549	184	1180	526	286	1180	526
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	22.1	20.1	30.9	24.1	16.6	33.1	19.1	18.2	25.2	20.5	23.7
Incr Delay (d2), s/veh	31.9	0.3	0.1	16.6	20.5	0.1	22.5	1.0	1.2	3.5	2.0	20.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.8	0.6	4.9	12.6	0.8	3.5	2.9	1.8	1.7	4.5	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	22.3	20.2	47.4	44.7	16.7	55.6	20.1	19.5	28.6	22.4	44.6
LnGrp LOS	E	C	C	D	D	B	E	C	B	C	C	D
Approach Vol, veh/h		593			1505			738			1240	
Approach Delay, s/veh		31.2			43.8			26.5			31.4	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.9	17.3	26.8		30.9	12.1	32.0				
Change Period (Y+Rc), s		5.8	5.8	5.8		5.8	5.8	5.8				
Max Green Setting (Gmax), s		25.1	13.5	19.0		25.1	6.3	26.2				
Max Q Clear Time (g_c+I1), s		27.1	11.5	9.3		23.5	7.2	27.3				
Green Ext Time (p_c), s		0.0	0.1	1.8		1.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			D									

Cumulative Year 2042 PM Peak Without Project Traffic Count



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	755	199	165	631	153	252	790	117	396	988	206
Future Volume (veh/h)	264	755	199	165	631	153	252	790	117	396	988	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	287	821	216	179	686	166	274	859	127	430	1074	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	276	764	201	178	623	151	262	851	379	406	1109	495
Arrive On Green	0.16	0.28	0.28	0.10	0.22	0.22	0.15	0.24	0.24	0.23	0.31	0.31
Sat Flow, veh/h	1767	2761	726	1767	2815	681	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	287	524	513	179	429	423	274	859	127	430	1074	224
Grp Sat Flow(s),veh/h/ln	1767	1763	1725	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	23.4	41.5	41.5	15.1	33.2	33.2	22.2	36.2	10.0	34.5	45.0	17.1
Cycle Q Clear(g_c), s	23.4	41.5	41.5	15.1	33.2	33.2	22.2	36.2	10.0	34.5	45.0	17.1
Prop In Lane	1.00		0.42	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	488	477	178	390	384	262	851	379	406	1109	495
V/C Ratio(X)	1.04	1.07	1.07	1.01	1.10	1.10	1.05	1.01	0.33	1.06	0.97	0.45
Avail Cap(c_a), veh/h	276	488	477	178	390	384	262	851	379	406	1109	495
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	54.3	54.3	67.5	58.4	58.4	63.9	56.9	47.0	57.8	50.7	41.1
Incr Delay (d2), s/veh	65.3	62.2	62.8	69.1	75.5	76.3	68.7	33.2	2.4	60.8	20.4	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	26.2	25.7	10.1	22.5	22.2	14.8	19.7	4.1	21.9	22.4	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.6	116.5	117.0	136.5	133.9	134.7	132.6	90.1	49.3	118.5	71.0	44.1
LnGrp LOS	F	F	F	F	F	F	F	F	D	F	E	D
Approach Vol, veh/h		1324			1031			1260			1728	
Approach Delay, s/veh		119.3			134.7			95.3			79.3	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.0	42.0	21.3	47.7	28.0	53.0	29.6	39.4
Change Period (Y+Rc), s	4.5	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	34.5	36.2	15.1	41.5	22.2	47.2	23.4	33.2
Max Q Clear Time (g_c+I1), s	36.5	38.2	17.1	43.5	24.2	47.0	25.4	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

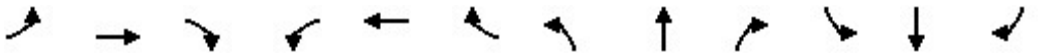
Intersection Summary	
HCM 6th Ctrl Delay	103.7
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	341.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	13	62	11	15	44	46	935	8	111	899	109
Future Vol, veh/h	122	13	62	11	15	44	46	935	8	111	899	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	133	14	67	12	16	48	50	1016	9	121	977	118
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	21.9	15.7	441.2	330.9
HCM LOS	C	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	62%	16%	100%	0%	0%
Vol Thru, %	0%	100%	0%	7%	21%	0%	100%	0%
Vol Right, %	0%	0%	100%	31%	63%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	46	935	8	197	70	111	899	109
LT Vol	46	0	0	122	11	111	0	0
Through Vol	0	935	0	13	15	0	899	0
RT Vol	0	0	8	62	44	0	0	109
Lane Flow Rate	50	1016	9	214	76	121	977	118
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.104	1.978	0.015	0.485	0.175	0.245	1.848	0.201
Departure Headway (Hd)	8.375	7.858	7.134	10.083	10.71	8.406	7.886	7.159
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	478	505	360	337	430	469	505
Service Time	6.075	5.558	4.834	7.783	8.41	6.106	5.586	4.859
HCM Lane V/C Ratio	0.116	2.126	0.018	0.594	0.226	0.281	2.083	0.234
HCM Control Delay	12	466	9.9	21.9	15.7	13.8	408.7	11.7
HCM Lane LOS	B	F	A	C	C	B	F	B
HCM 95th-tile Q	0.3	61.5	0	2.5	0.6	1	54.2	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	864	102	130	397	76	130	688	279	177	527	208
Future Volume (veh/h)	311	864	102	130	397	76	130	688	279	177	527	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	338	939	111	141	432	83	141	748	303	192	573	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	357	1047	467	161	655	292	286	1476	658	220	1476	658
Arrive On Green	0.20	0.30	0.30	0.09	0.19	0.19	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	675	3526	1572	533	3526	1572
Grp Volume(v), veh/h	338	939	111	141	432	83	141	748	303	192	573	226
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	675	1763	1572	533	1763	1572
Q Serve(g_s), s	17.0	23.0	4.8	7.1	10.2	4.1	16.5	14.1	12.5	23.6	10.2	8.8
Cycle Q Clear(g_c), s	17.0	23.0	4.8	7.1	10.2	4.1	26.7	14.1	12.5	37.7	10.2	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	1047	467	161	655	292	286	1476	658	220	1476	658
V/C Ratio(X)	0.95	0.90	0.24	0.88	0.66	0.28	0.49	0.51	0.46	0.87	0.39	0.34
Avail Cap(c_a), veh/h	357	1097	489	161	705	314	286	1476	658	220	1476	658
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	30.3	23.9	40.4	34.0	31.5	27.4	19.3	18.8	36.4	18.2	17.8
Incr Delay (d2), s/veh	33.7	9.6	0.3	37.8	2.1	0.5	5.9	1.2	2.3	35.2	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	10.4	1.7	4.6	4.3	1.5	2.9	5.5	4.5	6.3	3.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	39.9	24.2	78.2	36.1	32.0	33.4	20.6	21.2	71.6	18.9	19.2
LnGrp LOS	E	D	C	E	D	C	C	C	C	E	B	B
Approach Vol, veh/h		1388			656			1192			991	
Approach Delay, s/veh		45.8			44.6			22.2			29.2	
Approach LOS		D			D			C			C	

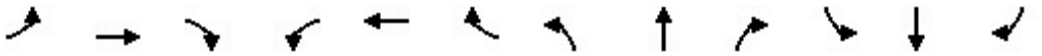
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		43.5	14.0	32.5		43.5	24.0	22.5				
Change Period (Y+Rc), s		5.8	5.8	5.8		5.8	5.8	5.8				
Max Green Setting (Gmax), s		36.4	8.2	28.0		36.4	18.2	18.0				
Max Q Clear Time (g_c+I1), s		28.7	9.1	25.0		39.7	19.0	12.2				
Green Ext Time (p_c), s		4.0	0.0	1.8		0.0	0.0	1.4				

Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									

Cumulative Year 2042 AM Peak With Project Traffic Count

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	464	103	228	887	185	195	643	136	199	620	174
Future Volume (veh/h)	244	464	103	228	887	185	195	643	136	199	620	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	265	504	112	248	964	201	212	699	148	216	674	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	272	915	202	277	934	194	220	751	335	224	759	339
Arrive On Green	0.15	0.32	0.32	0.16	0.32	0.32	0.12	0.21	0.21	0.13	0.22	0.22
Sat Flow, veh/h	1767	2870	634	1767	2905	605	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	265	309	307	248	585	580	212	699	148	216	674	189
Grp Sat Flow(s),veh/h/ln	1767	1763	1741	1767	1763	1747	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	19.4	18.8	19.0	17.9	41.8	41.8	15.5	25.3	10.6	15.8	24.1	13.9
Cycle Q Clear(g_c), s	19.4	18.8	19.0	17.9	41.8	41.8	15.5	25.3	10.6	15.8	24.1	13.9
Prop In Lane	1.00		0.36	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	562	555	277	567	562	220	751	335	224	759	339
V/C Ratio(X)	0.97	0.55	0.55	0.90	1.03	1.03	0.96	0.93	0.44	0.96	0.89	0.56
Avail Cap(c_a), veh/h	272	562	555	398	567	562	220	751	335	224	759	339
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	36.6	36.6	53.8	44.1	44.1	56.6	50.2	44.4	56.4	49.5	45.5
Incr Delay (d2), s/veh	47.4	1.1	1.2	16.9	46.1	46.9	49.9	19.7	4.2	49.5	14.5	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	8.0	8.0	9.0	24.6	24.4	9.8	12.9	4.4	10.0	11.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.2	37.7	37.8	70.7	90.2	91.0	106.5	69.9	48.6	106.0	64.0	52.0
LnGrp LOS	F	D	D	E	F	F	F	E	D	F	E	D
Approach Vol, veh/h		881			1413			1059			1079	
Approach Delay, s/veh		57.1			87.1			74.3			70.3	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.3	33.5	26.6	47.6	22.0	33.8	26.2	48.0
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	16.5	27.7	29.3	32.5	16.2	28.0	20.0	41.8
Max Q Clear Time (g_c+I1), s	17.8	27.3	19.9	21.0	17.5	26.1	21.4	43.8
Green Ext Time (p_c), s	0.0	0.2	0.5	2.6	0.0	0.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	74.0
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	330.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	118	34	86	69	11	85	18	656	17	54	932	51
Future Vol, veh/h	118	34	86	69	11	85	18	656	17	54	932	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	128	37	93	75	12	92	20	713	18	59	1013	55
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	29.6	22.7	262.7	494.5
HCM LOS	D	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	50%	42%	100%	0%	0%
Vol Thru, %	0%	100%	0%	14%	7%	0%	100%	0%
Vol Right, %	0%	0%	100%	36%	52%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	656	17	238	165	54	932	51
LT Vol	18	0	0	118	69	54	0	0
Through Vol	0	656	0	34	11	0	932	0
RT Vol	0	0	17	86	85	0	0	51
Lane Flow Rate	20	713	18	259	179	59	1013	55
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.045	1.533	0.036	0.615	0.437	0.133	2.16	0.107
Departure Headway (Hd)	9.811	9.282	8.542	10.938	11.445	9.101	8.575	7.84
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	399	422	334	317	396	436	460
Service Time	7.511	6.982	6.242	8.638	9.145	6.801	6.275	5.54
HCM Lane V/C Ratio	0.054	1.787	0.043	0.775	0.565	0.149	2.323	0.12
HCM Control Delay	13	276.1	11.6	29.6	22.7	13.2	548.8	11.5
HCM Lane LOS	B	F	B	D	C	B	F	B
HCM 95th-tile Q	0.1	32.7	0.1	3.9	2.1	0.5	66	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	386	45	211	1109	65	124	430	129	95	625	449
Future Volume (veh/h)	118	386	45	211	1109	65	124	430	129	95	625	449
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	420	49	229	1205	71	135	467	140	103	679	488
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	157	992	442	270	1219	544	176	1118	499	275	1118	499
Arrive On Green	0.09	0.28	0.28	0.15	0.35	0.35	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	477	3526	1572	807	3526	1572
Grp Volume(v), veh/h	128	420	49	229	1205	71	135	467	140	103	679	488
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	477	1763	1572	807	1763	1572
Q Serve(g_s), s	5.0	6.8	1.6	8.8	23.8	2.2	10.8	7.3	4.7	8.1	11.4	21.5
Cycle Q Clear(g_c), s	5.0	6.8	1.6	8.8	23.8	2.2	22.2	7.3	4.7	15.4	11.4	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	992	442	270	1219	544	176	1118	499	275	1118	499
V/C Ratio(X)	0.82	0.42	0.11	0.85	0.99	0.13	0.77	0.42	0.28	0.38	0.61	0.98
Avail Cap(c_a), veh/h	157	992	442	273	1219	544	176	1118	499	275	1118	499
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	20.5	18.7	28.9	22.8	15.7	32.1	18.8	17.9	24.9	20.2	23.7
Incr Delay (d2), s/veh	27.6	0.3	0.1	21.2	23.0	0.1	26.5	1.1	1.4	3.9	2.5	35.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.5	0.5	5.0	12.3	0.7	3.4	2.8	1.7	1.7	4.5	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	20.8	18.8	50.1	45.7	15.8	58.6	20.0	19.3	28.7	22.7	59.0
LnGrp LOS	E	C	B	D	D	B	E	B	B	C	C	E
Approach Vol, veh/h		597			1505			742			1270	
Approach Delay, s/veh		28.8			45.0			26.9			37.1	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	28.0	16.5	25.5		28.0	12.0	30.0
Change Period (Y+Rc), s	5.8	5.8	5.8		5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	10.8	19.6		22.2	6.2	24.2
Max Q Clear Time (g_c+I1), s	24.2	10.8	8.8		23.5	7.0	25.8
Green Ext Time (p_c), s	0.0	0.0	1.9		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	74	102	0	0	63
Future Vol, veh/h	21	74	102	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	80	111	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	111	0	-	0	237	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	126	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1473	-	-	-	749	940
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1473	-	-	-	737	940
Mov Cap-2 Maneuver	-	-	-	-	737	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1473	-	-	-	940
HCM Lane V/C Ratio	0.015	-	-	-	0.073
HCM Control Delay (s)	7.5	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	74	102	6	18	0
Future Vol, veh/h	0	74	102	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	80	111	7	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	195	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1464	-	-	-	792	935
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1464	-	-	-	792	935
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	941	-

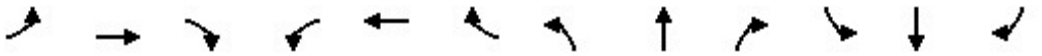
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1464	-	-	-	792
HCM Lane V/C Ratio	-	-	-	-	0.025
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Cumulative Year 2042 PM Peak With Project Traffic Count

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	755	208	167	631	153	257	805	118	396	1015	206
Future Volume (veh/h)	264	755	208	167	631	153	257	805	118	396	1015	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	287	821	226	182	686	166	279	875	128	430	1103	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	273	752	207	178	623	151	266	827	369	405	1105	493
Arrive On Green	0.15	0.28	0.28	0.10	0.22	0.22	0.15	0.23	0.23	0.23	0.31	0.31
Sat Flow, veh/h	1767	2731	752	1767	2815	681	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	287	530	517	182	429	423	279	875	128	430	1103	224
Grp Sat Flow(s),veh/h/ln	1767	1763	1720	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	23.2	41.3	41.3	15.1	33.2	33.2	22.6	35.2	10.2	34.4	46.9	17.1
Cycle Q Clear(g_c), s	23.2	41.3	41.3	15.1	33.2	33.2	22.6	35.2	10.2	34.4	46.9	17.1
Prop In Lane	1.00		0.44	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	485	474	178	390	384	266	827	369	405	1105	493
V/C Ratio(X)	1.05	1.09	1.09	1.02	1.10	1.10	1.05	1.06	0.35	1.06	1.00	0.45
Avail Cap(c_a), veh/h	273	485	474	178	390	384	266	827	369	405	1105	493
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	54.3	54.4	67.5	58.4	58.4	63.7	57.4	47.8	57.8	51.5	41.2
Incr Delay (d2), s/veh	68.2	68.0	68.6	73.6	75.5	76.3	68.2	47.7	2.6	61.8	26.7	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	26.8	26.3	10.3	22.5	22.2	15.0	20.8	4.2	21.9	24.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.6	122.3	123.0	141.1	133.9	134.7	131.9	105.1	50.4	119.6	78.2	44.2
LnGrp LOS	F	F	F	F	F	F	F	F	D	F	E	D
Approach Vol, veh/h		1334			1034			1282			1757	
Approach Delay, s/veh		124.6			135.5			105.5			84.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.2	41.0	21.3	47.5	28.4	52.8	29.4	39.4
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	34.4	35.2	15.1	41.3	22.6	47.0	23.2	33.2
Max Q Clear Time (g_c+I1), s	36.4	37.2	17.1	43.3	24.6	48.9	25.2	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

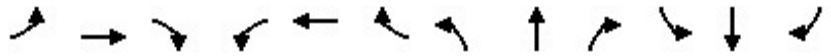
Intersection Summary	
HCM 6th Ctrl Delay	108.9
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	357.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	13	62	28	15	66	46	935	39	149	899	109
Future Vol, veh/h	122	13	62	28	15	66	46	935	39	149	899	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	133	14	67	30	16	72	50	1016	42	162	977	118
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	23.6	17.8	465	350.7
HCM LOS	C	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	62%	26%	100%	0%	0%
Vol Thru, %	0%	100%	0%	7%	14%	0%	100%	0%
Vol Right, %	0%	0%	100%	31%	61%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	46	935	39	197	109	149	899	109
LT Vol	46	0	0	122	28	149	0	0
Through Vol	0	935	0	13	15	0	899	0
RT Vol	0	0	39	62	66	0	0	109
Lane Flow Rate	50	1016	42	214	118	162	977	118
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.109	2.066	0.078	0.505	0.281	0.343	1.932	0.211
Departure Headway (Hd)	8.794	8.274	7.546	10.575	10.926	8.9	8.378	7.646
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	410	447	478	343	332	407	440	473
Service Time	6.494	5.974	5.246	8.275	8.626	6.6	6.078	5.346
HCM Lane V/C Ratio	0.122	2.273	0.088	0.624	0.355	0.398	2.22	0.249
HCM Control Delay	12.6	506.2	10.9	23.6	17.8	16.2	447.2	12.4
HCM Lane LOS	B	F	B	C	C	C	F	B
HCM 95th-tile Q	0.4	63.3	0.3	2.7	1.1	1.5	55.7	0.8



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	864	102	130	397	77	130	703	279	178	536	217
Future Volume (veh/h)	326	864	102	130	397	77	130	703	279	178	536	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	354	939	111	141	432	84	141	764	303	193	583	236
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	357	1047	467	161	655	292	281	1476	658	215	1476	658
Arrive On Green	0.20	0.30	0.30	0.09	0.19	0.19	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	662	3526	1572	525	3526	1572
Grp Volume(v), veh/h	354	939	111	141	432	84	141	764	303	193	583	236
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	662	1763	1572	525	1763	1572
Q Serve(g_s), s	18.0	23.0	4.8	7.1	10.2	4.1	17.0	14.5	12.5	23.2	10.4	9.2
Cycle Q Clear(g_c), s	18.0	23.0	4.8	7.1	10.2	4.1	27.3	14.5	12.5	37.7	10.4	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	1047	467	161	655	292	281	1476	658	215	1476	658
V/C Ratio(X)	0.99	0.90	0.24	0.88	0.66	0.29	0.50	0.52	0.46	0.90	0.40	0.36
Avail Cap(c_a), veh/h	357	1097	489	161	705	314	281	1476	658	215	1476	658
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	30.3	23.9	40.4	34.0	31.5	27.7	19.4	18.8	36.9	18.2	17.9
Incr Delay (d2), s/veh	45.0	9.6	0.3	37.8	2.1	0.5	6.3	1.3	2.3	39.3	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.4	1.7	4.6	4.3	1.5	3.0	5.6	4.5	6.5	4.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	39.9	24.2	78.2	36.1	32.0	34.0	20.7	21.2	76.2	19.0	19.4
LnGrp LOS	F	D	C	E	D	C	C	C	C	E	B	B
Approach Vol, veh/h		1404			657			1208			1012	
Approach Delay, s/veh		49.0			44.6			22.4			30.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	43.5	14.0	32.5	43.5	24.0	22.5
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	36.4	8.2	28.0	36.4	18.2	18.0
Max Q Clear Time (g_c+I1), s	29.3	9.1	25.0	39.7	20.0	12.2
Green Ext Time (p_c), s	3.8	0.0	1.8	0.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	127	65	0	0	42
Future Vol, veh/h	71	127	65	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	138	71	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	71	0	-	0	363	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	292	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1523	-	-	-	634	989
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1523	-	-	-	599	989
Mov Cap-2 Maneuver	-	-	-	-	599	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1523	-	-	-	989
HCM Lane V/C Ratio	0.051	-	-	-	0.046
HCM Control Delay (s)	7.5	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	127	65	20	12	0
Future Vol, veh/h	0	127	65	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	138	71	22	13	0

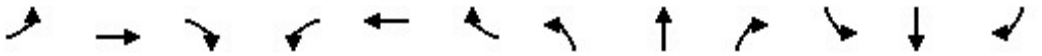
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	220	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1495	-	-	-	766	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1495	-	-	-	766	975
Mov Cap-2 Maneuver	-	-	-	-	766	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1495	-	-	-	766
HCM Lane V/C Ratio	-	-	-	-	0.017
HCM Control Delay (s)	0	-	-	-	9.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Existing Plus Project Recommended Mitigation

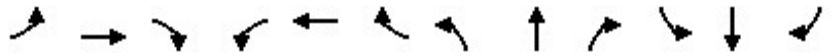
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	306	68	151	585	122	131	432	91	131	418	115
Future Volume (veh/h)	161	306	68	151	585	122	131	432	91	131	418	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	175	333	74	164	636	133	142	470	99	142	454	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	211	694	152	200	682	142	176	926	413	176	926	413
Arrive On Green	0.12	0.24	0.24	0.11	0.24	0.24	0.10	0.26	0.26	0.10	0.26	0.26
Sat Flow, veh/h	1767	2874	631	1767	2903	606	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	175	203	204	164	386	383	142	470	99	142	454	125
Grp Sat Flow(s),veh/h/ln	1767	1763	1742	1767	1763	1746	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.7	7.9	8.1	7.3	17.1	17.2	6.3	9.1	4.0	6.3	8.7	5.1
Cycle Q Clear(g_c), s	7.7	7.9	8.1	7.3	17.1	17.2	6.3	9.1	4.0	6.3	8.7	5.1
Prop In Lane	1.00		0.36	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	425	420	200	414	410	176	926	413	176	926	413
V/C Ratio(X)	0.83	0.48	0.49	0.82	0.93	0.93	0.81	0.51	0.24	0.81	0.49	0.30
Avail Cap(c_a), veh/h	216	425	420	216	414	410	188	926	413	188	926	413
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	26.0	26.1	34.7	30.0	30.0	35.3	25.1	23.2	35.3	25.0	23.6
Incr Delay (d2), s/veh	22.5	0.8	0.9	20.5	27.7	28.4	20.0	1.8	1.3	21.4	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.1	3.1	4.0	9.7	9.7	3.5	3.7	1.5	3.6	3.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	26.8	27.0	55.2	57.7	58.4	55.3	26.9	24.5	56.7	26.8	25.5
LnGrp LOS	E	C	C	E	E	E	E	C	C	E	C	C
Approach Vol, veh/h		582			933			711			721	
Approach Delay, s/veh		35.9			57.5			32.2			32.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	26.8	15.2	25.5	12.4	26.8	15.7	25.0
Change Period (Y+Rc), s	4.5	5.8	6.2	6.2	4.5	5.8	6.2	6.2
Max Green Setting (Gmax), s	8.5	20.2	9.8	18.8	8.5	20.2	9.8	18.8
Max Q Clear Time (g_c+I1), s	8.3	11.1	9.3	10.1	8.3	10.7	9.7	19.2
Green Ext Time (p_c), s	0.0	2.1	0.0	1.4	0.0	2.2	0.0	0.0

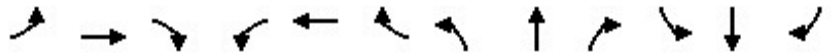
Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	16	54	54	5	67	11	433	27	40	615	32
Future Volume (veh/h)	74	16	54	54	5	67	11	433	27	40	615	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	17	59	59	5	73	12	471	29	43	668	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	33	79	162	23	114	27	1123	952	75	1174	995
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.61	0.61	0.04	0.63	0.63
Sat Flow, veh/h	761	264	623	603	181	894	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	156	0	0	137	0	0	12	471	29	43	668	35
Grp Sat Flow(s),veh/h/ln	1648	0	0	1678	0	0	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	0.4	8.1	0.4	1.4	12.4	0.5
Cycle Q Clear(g_c), s	5.1	0.0	0.0	4.4	0.0	0.0	0.4	8.1	0.4	1.4	12.4	0.5
Prop In Lane	0.51		0.38	0.43		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	0	0	299	0	0	27	1123	952	75	1174	995
V/C Ratio(X)	0.52	0.00	0.00	0.46	0.00	0.00	0.45	0.42	0.03	0.57	0.57	0.04
Avail Cap(c_a), veh/h	551	0	0	551	0	0	147	1123	952	147	1174	995
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.96	0.96	0.96	0.79	0.79	0.79
Uniform Delay (d), s/veh	25.1	0.0	0.0	24.8	0.0	0.0	29.3	6.3	4.8	28.2	6.3	4.1
Incr Delay (d2), s/veh	1.4	0.0	0.0	1.1	0.0	0.0	10.9	1.1	0.1	5.3	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	1.8	0.0	0.0	0.2	2.3	0.1	0.7	3.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	0.0	25.9	0.0	0.0	40.2	7.4	4.8	33.5	7.9	4.2
LnGrp LOS	C	A	A	C	A	A	D	A	A	C	A	A
Approach Vol, veh/h		156			137			512			746	
Approach Delay, s/veh		26.5			25.9			8.0			9.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	40.8		12.1	5.4	42.5		12.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.6	23.5		18.0	5.0	23.5		18.0
Max Q Clear Time (g_c+I1), s	3.4	10.1		7.1	2.4	14.4		6.4
Green Ext Time (p_c), s	0.0	2.3		0.5	0.0	2.9		0.5

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	241	30	139	693	43	82	285	85	63	417	301
Future Volume (veh/h)	80	241	30	139	693	43	82	285	85	63	417	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	87	262	33	151	753	47	89	310	92	68	453	327
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	118	838	374	191	982	438	295	1186	529	397	1186	529
Arrive On Green	0.07	0.24	0.24	0.11	0.28	0.28	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	687	3526	1572	975	3526	1572
Grp Volume(v), veh/h	87	262	33	151	753	47	89	310	92	68	453	327
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	687	1763	1572	975	1763	1572
Q Serve(g_s), s	2.6	3.3	0.9	4.6	10.7	1.2	6.2	3.5	2.3	3.0	5.4	9.5
Cycle Q Clear(g_c), s	2.6	3.3	0.9	4.6	10.7	1.2	11.6	3.5	2.3	6.5	5.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	838	374	191	982	438	295	1186	529	397	1186	529
V/C Ratio(X)	0.73	0.31	0.09	0.79	0.77	0.11	0.30	0.26	0.17	0.17	0.38	0.62
Avail Cap(c_a), veh/h	168	1160	517	200	1224	546	295	1186	529	397	1186	529
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.2	16.2	23.8	18.1	14.7	18.2	13.2	12.8	15.6	13.8	15.2
Incr Delay (d2), s/veh	9.5	0.2	0.1	18.5	2.3	0.1	2.6	0.5	0.7	0.9	0.9	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.2	0.3	2.6	3.9	0.4	1.0	1.2	0.7	0.7	1.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	17.4	16.3	42.3	20.4	14.8	20.8	13.7	13.5	16.5	14.8	20.6
LnGrp LOS	C	B	B	D	C	B	C	B	B	B	B	C
Approach Vol, veh/h		382			951			491			848	
Approach Delay, s/veh		21.2			23.6			15.0			17.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	11.7	18.8	24.2	9.5	21.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	6.2	18.0	18.4	5.2	19.0
Max Q Clear Time (g_c+I1), s	13.6	6.6	5.3	11.5	4.6	12.7
Green Ext Time (p_c), s	1.2	0.0	1.2	2.4	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	49	67	0	0	63
Future Vol, veh/h	21	49	67	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	53	73	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	172	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	99	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1520	-	-	-	816	986
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	922	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1520	-	-	-	803	986
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	922	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1520	-	-	-	986
HCM Lane V/C Ratio	0.015	-	-	-	0.069
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	67	6	18	0
Future Vol, veh/h	0	49	67	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	53	73	7	20	0

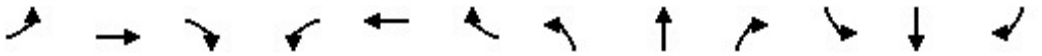
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	130	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1512	-	-	-	862	981
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	967	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1512	-	-	-	862	981
Mov Cap-2 Maneuver	-	-	-	-	862	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	967	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	862
HCM Lane V/C Ratio	-	-	-	-	0.023
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Existing Plus Project Recommended Mitigation

PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	498	141	111	416	101	172	537	78	261	679	136
Future Volume (veh/h)	174	498	141	111	416	101	172	537	78	261	679	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	189	541	153	121	452	110	187	584	85	284	738	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	224	622	175	151	529	128	221	811	362	320	1008	450
Arrive On Green	0.13	0.23	0.23	0.09	0.19	0.19	0.13	0.23	0.23	0.18	0.29	0.29
Sat Flow, veh/h	1767	2716	765	1767	2816	680	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	189	350	344	121	282	280	187	584	85	284	738	148
Grp Sat Flow(s),veh/h/ln	1767	1763	1718	1767	1763	1733	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.1	16.7	16.9	5.9	13.5	13.7	9.1	13.4	3.8	13.7	16.5	6.5
Cycle Q Clear(g_c), s	9.1	16.7	16.9	5.9	13.5	13.7	9.1	13.4	3.8	13.7	16.5	6.5
Prop In Lane	1.00		0.45	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	404	394	151	331	326	221	811	362	320	1008	450
V/C Ratio(X)	0.85	0.87	0.87	0.80	0.85	0.86	0.85	0.72	0.23	0.89	0.73	0.33
Avail Cap(c_a), veh/h	238	444	432	158	363	357	226	811	362	348	1008	450
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	32.4	32.5	39.3	34.3	34.4	37.4	31.1	27.4	34.9	28.2	24.6
Incr Delay (d2), s/veh	22.4	15.5	16.5	24.2	16.2	17.7	24.1	5.5	1.5	22.1	4.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.3	8.2	3.4	6.8	6.9	5.2	5.9	1.5	7.5	7.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	48.0	49.0	63.5	50.5	52.1	61.5	36.5	28.9	57.0	32.9	26.6
LnGrp LOS	E	D	D	E	D	D	E	D	C	E	C	C
Approach Vol, veh/h		883			683			856			1170	
Approach Delay, s/veh		50.9			53.5			41.2			37.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	25.9	13.7	26.2	16.7	30.8	17.3	22.6
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	17.2	19.0	7.8	22.0	11.2	25.0	11.8	18.0
Max Q Clear Time (g_c+I1), s	15.7	15.4	7.9	18.9	11.1	18.5	11.1	15.7
Green Ext Time (p_c), s	0.1	1.3	0.0	1.2	0.0	2.7	0.0	0.7

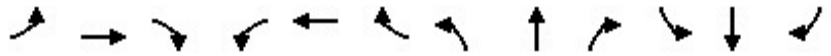
Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	93.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	6	39	25	7	51	29	617	35	111	593	68
Future Vol, veh/h	76	6	39	25	7	51	29	617	35	111	593	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	83	7	42	27	8	55	32	671	38	121	645	74
Number of Lanes	0	1	0	0	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	15.2	13.5	126	86.5
HCM LOS	C	B	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	63%	30%	100%	0%	0%
Vol Thru, %	0%	100%	0%	5%	8%	0%	100%	0%
Vol Right, %	0%	0%	100%	32%	61%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	617	35	121	83	111	593	68
LT Vol	29	0	0	76	25	111	0	0
Through Vol	0	617	0	6	7	0	593	0
RT Vol	0	0	35	39	51	0	0	68
Lane Flow Rate	32	671	38	132	90	121	645	74
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.062	1.221	0.062	0.301	0.202	0.231	1.145	0.117
Departure Headway (Hd)	7.31	6.799	6.083	8.776	8.641	7.223	6.711	5.994
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	537	592	412	418	501	548	602
Service Time	5.01	4.499	3.783	6.476	6.341	4.923	4.411	3.694
HCM Lane V/C Ratio	0.065	1.25	0.064	0.32	0.215	0.242	1.177	0.123
HCM Control Delay	10.5	138	9.2	15.2	13.5	12.1	109.3	9.5
HCM Lane LOS	B	F	A	C	B	B	F	A
HCM 95th-tile Q	0.2	24.5	0.2	1.2	0.7	0.9	20.8	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	540	67	86	248	51	86	469	184	118	357	146
Future Volume (veh/h)	220	540	67	86	248	51	86	469	184	118	357	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	587	73	93	270	55	93	510	200	128	388	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	855	381	125	519	231	371	1244	555	317	1244	555
Arrive On Green	0.17	0.24	0.24	0.07	0.15	0.15	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	853	3526	1572	733	3526	1572
Grp Volume(v), veh/h	239	587	73	93	270	55	93	510	200	128	388	159
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	853	1763	1572	733	1763	1572
Q Serve(g_s), s	6.8	7.9	1.9	2.7	3.7	1.6	4.6	5.7	4.9	8.3	4.2	3.8
Cycle Q Clear(g_c), s	6.8	7.9	1.9	2.7	3.7	1.6	8.8	5.7	4.9	14.1	4.2	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	855	381	125	519	231	371	1244	555	317	1244	555
V/C Ratio(X)	0.81	0.69	0.19	0.74	0.52	0.24	0.25	0.41	0.36	0.40	0.31	0.29
Avail Cap(c_a), veh/h	380	1359	606	308	1217	543	371	1244	555	317	1244	555
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	17.9	15.7	23.8	20.5	19.7	15.5	12.8	12.5	18.1	12.3	12.1
Incr Delay (d2), s/veh	10.0	1.0	0.2	8.3	0.8	0.5	1.6	1.0	1.8	3.8	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.7	0.6	1.3	1.3	0.5	0.9	1.9	1.6	1.5	1.4	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	18.9	15.9	32.1	21.4	20.2	17.1	13.8	14.3	21.9	12.9	13.4
LnGrp LOS	C	B	B	C	C	C	B	B	B	C	B	B
Approach Vol, veh/h		899			418			803			675	
Approach Delay, s/veh		21.9			23.6			14.3			14.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.2	9.5	18.4	24.2	14.5	13.5
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.4	9.1	20.1	18.4	11.2	18.0
Max Q Clear Time (g_c+I1), s	10.8	4.7	9.9	16.1	8.8	5.7
Green Ext Time (p_c), s	2.6	0.1	2.8	0.9	0.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	84	43	0	0	42
Future Vol, veh/h	71	84	43	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	91	47	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	47	0	-	0	292	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1554	-	-	-	697	1019
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1554	-	-	-	661	1019
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	793	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1554	-	-	-	1019
HCM Lane V/C Ratio	0.05	-	-	-	0.045
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	43	20	12	0
Future Vol, veh/h	0	84	43	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	91	47	22	13	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	69	0	-	0	149	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	91	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1526	-	-	-	841	1005
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	930	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1526	-	-	-	841	1005
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	930	-

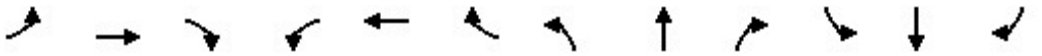
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1526	-	-	-	841
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Near Term Traffic Condition
Recommended Mitigation
AM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

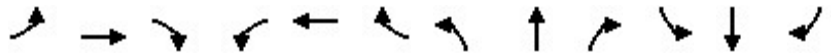
02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	312	191	154	597	124	194	534	92	134	561	117
Future Volume (veh/h)	164	312	191	154	597	124	194	534	92	134	561	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	178	339	208	167	649	135	211	580	100	146	610	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	216	787	351	204	763	340	250	1007	449	182	871	389
Arrive On Green	0.12	0.22	0.22	0.12	0.22	0.22	0.14	0.29	0.29	0.10	0.25	0.25
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	178	339	208	167	649	135	211	580	100	146	610	127
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.6	6.4	9.1	7.1	13.6	5.7	9.0	10.8	3.7	6.2	12.1	5.1
Cycle Q Clear(g_c), s	7.6	6.4	9.1	7.1	13.6	5.7	9.0	10.8	3.7	6.2	12.1	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	787	351	204	763	340	250	1007	449	182	871	389
V/C Ratio(X)	0.82	0.43	0.59	0.82	0.85	0.40	0.85	0.58	0.22	0.80	0.70	0.33
Avail Cap(c_a), veh/h	241	871	389	218	825	368	264	1007	449	225	871	389
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	25.7	26.7	33.2	28.9	25.8	32.2	23.5	21.0	33.7	26.4	23.7
Incr Delay (d2), s/veh	18.7	0.4	2.0	20.4	8.0	0.7	20.7	2.4	1.1	15.5	4.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.4	3.3	3.9	6.0	2.0	5.0	4.4	1.4	3.3	5.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	26.0	28.7	53.6	36.9	26.6	52.9	25.9	22.1	49.3	31.0	25.9
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		725			951			891			883	
Approach Delay, s/veh		33.1			38.4			31.9			33.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	27.8	13.4	23.4	15.4	24.8	13.9	22.8
Change Period (Y+Rc), s	4.5	5.8	4.5	6.2	4.5	5.8	4.5	6.2
Max Green Setting (Gmax), s	9.8	20.7	9.5	19.0	11.5	19.0	10.5	18.0
Max Q Clear Time (g_c+I1), s	8.2	12.8	9.1	11.1	11.0	14.1	9.6	15.6
Green Ext Time (p_c), s	0.1	2.4	0.0	1.6	0.0	1.8	0.0	1.1

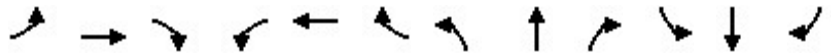
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	16	55	55	5	68	11	602	15	40	877	33
Future Volume (veh/h)	75	16	55	55	5	68	11	602	15	40	877	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	82	17	60	60	5	74	12	654	16	43	953	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	160	32	75	137	23	108	26	1232	1044	68	1276	1082
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.66	0.66	0.04	0.69	0.69
Sat Flow, veh/h	712	246	581	562	176	839	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	159	0	0	139	0	0	12	654	16	43	953	36
Grp Sat Flow(s),veh/h/ln	1539	0	0	1577	0	0	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	0.5	14.6	0.3	1.9	26.4	0.6
Cycle Q Clear(g_c), s	7.9	0.0	0.0	6.5	0.0	0.0	0.5	14.6	0.3	1.9	26.4	0.6
Prop In Lane	0.52		0.38	0.43		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	0	0	267	0	0	26	1232	1044	68	1276	1082
V/C Ratio(X)	0.60	0.00	0.00	0.52	0.00	0.00	0.46	0.53	0.02	0.63	0.75	0.03
Avail Cap(c_a), veh/h	406	0	0	408	0	0	110	1232	1044	139	1276	1082
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.94	0.94	0.94	0.69	0.69	0.69
Uniform Delay (d), s/veh	33.7	0.0	0.0	33.2	0.0	0.0	39.1	7.0	4.6	37.9	8.0	4.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	1.6	0.0	0.0	11.7	1.5	0.0	6.5	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	2.5	0.0	0.0	0.3	4.5	0.1	0.9	7.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	0.0	34.7	0.0	0.0	50.8	8.5	4.6	44.4	10.8	4.0
LnGrp LOS	D	A	A	C	A	A	D	A	A	D	B	A
Approach Vol, veh/h		159			139			682			1032	
Approach Delay, s/veh		35.8			34.7			9.2			12.0	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	57.6		14.8	5.7	59.5		14.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.3	42.2		18.0	5.0	43.5		18.0
Max Q Clear Time (g_c+I1), s	3.3	16.6		9.9	2.5	28.4		8.5
Green Ext Time (p_c), s	0.0	4.3		0.4	0.0	6.1		0.4

Intersection Summary		
HCM 6th Ctrl Delay	14.5	
HCM 6th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	298	53	163	751	129	84	365	144	212	522	313
Future Volume (veh/h)	82	298	53	163	751	129	84	365	144	212	522	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	89	324	58	177	816	140	91	397	157	230	567	340
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	119	859	383	210	1041	464	248	1143	510	332	1143	510
Arrive On Green	0.07	0.24	0.24	0.12	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	610	3526	1572	848	3526	1572
Grp Volume(v), veh/h	89	324	58	177	816	140	91	397	157	230	567	340
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	610	1763	1572	848	1763	1572
Q Serve(g_s), s	2.7	4.3	1.6	5.4	11.8	3.8	7.8	4.8	4.2	13.2	7.2	10.4
Cycle Q Clear(g_c), s	2.7	4.3	1.6	5.4	11.8	3.8	15.0	4.8	4.2	18.0	7.2	10.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	859	383	210	1041	464	248	1143	510	332	1143	510
V/C Ratio(X)	0.75	0.38	0.15	0.84	0.78	0.30	0.37	0.35	0.31	0.69	0.50	0.67
Avail Cap(c_a), veh/h	169	1143	510	210	1225	546	248	1143	510	332	1143	510
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	17.5	16.5	24.0	17.9	15.1	21.2	14.3	14.1	22.0	15.1	16.2
Incr Delay (d2), s/veh	10.7	0.3	0.2	25.5	2.9	0.4	4.1	0.8	1.6	11.3	1.5	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.5	0.5	3.5	4.3	1.2	1.2	1.7	1.4	3.6	2.6	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	17.8	16.7	49.4	20.8	15.5	25.3	15.1	15.7	33.3	16.7	23.0
LnGrp LOS	D	B	B	D	C	B	C	B	B	C	B	C
Approach Vol, veh/h		471			1133			645			1137	
Approach Delay, s/veh		21.1			24.6			16.7			21.9	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	23.8	12.4	19.3	23.8	9.5	22.2
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	18.0	6.6	18.0	18.0	5.3	19.3
Max Q Clear Time (g_c+I1), s	17.0	7.4	6.3	20.0	4.7	13.8
Green Ext Time (p_c), s	0.4	0.0	1.6	0.0	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	50	68	0	0	63
Future Vol, veh/h	21	50	68	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	54	74	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	74	0	-	0	174	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1519	-	-	-	814	985
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1519	-	-	-	801	985
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	921	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1519	-	-	-	985
HCM Lane V/C Ratio	0.015	-	-	-	0.07
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	50	68	6	18	0
Future Vol, veh/h	0	50	68	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	54	74	7	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	81	0	-	0	132	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1510	-	-	-	860	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	966	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1510	-	-	-	860	980
Mov Cap-2 Maneuver	-	-	-	-	860	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	966	-

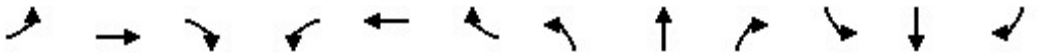
Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1510	-	-	-	860
HCM Lane V/C Ratio	-	-	-	-	0.023
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Near Term Traffic Condition
Recommended Mitigation
PM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

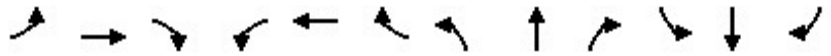
02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	508	251	111	424	103	253	661	80	266	845	139
Future Volume (veh/h)	177	508	251	111	424	103	253	661	80	266	845	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	192	552	273	121	461	112	275	718	87	289	918	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	194	728	325	137	614	274	279	965	430	310	1027	458
Arrive On Green	0.11	0.21	0.21	0.08	0.17	0.17	0.21	0.36	0.36	0.18	0.29	0.29
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	192	552	273	121	461	112	275	718	87	289	918	151
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	9.8	13.3	15.0	6.1	11.2	5.7	14.0	16.0	3.4	14.5	22.5	6.8
Cycle Q Clear(g_c), s	9.8	13.3	15.0	6.1	11.2	5.7	14.0	16.0	3.4	14.5	22.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	728	325	137	614	274	279	965	430	310	1027	458
V/C Ratio(X)	0.99	0.76	0.84	0.88	0.75	0.41	0.99	0.74	0.20	0.93	0.89	0.33
Avail Cap(c_a), veh/h	194	819	365	137	705	314	279	965	430	310	1027	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	33.6	34.3	41.1	35.3	33.0	35.5	25.9	21.9	36.6	30.6	25.0
Incr Delay (d2), s/veh	60.8	3.7	14.7	43.4	3.9	1.0	33.7	2.6	0.5	33.7	11.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	5.6	6.6	4.2	4.8	2.1	7.9	5.9	1.2	8.8	10.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.8	37.3	49.0	84.4	39.2	34.0	69.2	28.4	22.4	70.2	42.4	26.9
LnGrp LOS	F	D	D	F	D	C	E	C	C	E	D	C
Approach Vol, veh/h		1017			694			1080			1358	
Approach Delay, s/veh		52.4			46.3			38.3			46.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	30.4	13.2	24.8	20.0	32.0	16.1	21.9
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	15.8	22.3	7.0	20.9	14.2	23.9	9.9	18.0
Max Q Clear Time (g_c+I1), s	16.5	18.0	8.1	17.0	16.0	24.5	11.8	13.2
Green Ext Time (p_c), s	0.0	1.9	0.0	1.6	0.0	0.0	0.0	1.3

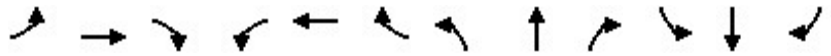
Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	6	40	25	7	52	30	823	36	113	799	69
Future Volume (veh/h)	78	6	40	25	7	52	30	823	36	113	799	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	85	7	43	27	8	57	33	895	39	123	868	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	14	54	89	32	113	55	1218	1032	152	1320	1118
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.03	0.66	0.66	0.11	0.95	0.95
Sat Flow, veh/h	936	130	498	347	296	1047	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	135	0	0	92	0	0	33	895	39	123	868	75
Grp Sat Flow(s),veh/h/ln	1564	0	0	1689	0	0	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.0	1.7	28.8	0.8	6.1	6.0	0.2
Cycle Q Clear(g_c), s	7.3	0.0	0.0	4.6	0.0	0.0	1.7	28.8	0.8	6.1	6.0	0.2
Prop In Lane	0.63		0.32	0.29		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	0	0	234	0	0	55	1218	1032	152	1320	1118
V/C Ratio(X)	0.58	0.00	0.00	0.39	0.00	0.00	0.60	0.73	0.04	0.81	0.66	0.07
Avail Cap(c_a), veh/h	365	0	0	374	0	0	98	1218	1032	167	1320	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.86	0.86	0.86	0.37	0.37	0.37
Uniform Delay (d), s/veh	38.9	0.0	0.0	37.9	0.0	0.0	43.0	10.3	5.5	39.1	0.9	0.7
Incr Delay (d2), s/veh	2.3	0.0	0.0	1.1	0.0	0.0	8.6	3.4	0.1	9.8	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	1.9	0.0	0.0	0.8	9.9	0.2	2.9	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	39.0	0.0	0.0	51.7	13.7	5.5	48.9	1.8	0.8
LnGrp LOS	D	A	A	D	A	A	D	B	A	D	A	A
Approach Vol, veh/h		135			92			967			1066	
Approach Delay, s/veh		41.2			39.0			14.7			7.2	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.2	63.6		14.2	7.3	68.5		14.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	8.5	50.0		18.0	5.0	53.5		18.0
Max Q Clear Time (g_c+I1), s	8.1	30.8		9.3	3.7	8.0		6.6
Green Ext Time (p_c), s	0.0	6.2		0.4	0.0	7.5		0.3

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	595	74	117	292	153	99	565	206	215	461	150
Future Volume (veh/h)	231	595	74	117	292	153	99	565	206	215	461	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	251	647	80	127	317	166	108	614	224	234	501	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	285	779	347	158	524	234	415	1751	781	334	1751	781
Arrive On Green	0.16	0.22	0.22	0.09	0.15	0.15	0.50	0.50	0.50	0.66	0.66	0.66
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	765	3526	1572	651	3526	1572
Grp Volume(v), veh/h	251	647	80	127	317	166	108	614	224	234	501	163
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	765	1763	1572	651	1763	1572
Q Serve(g_s), s	12.5	15.8	3.8	6.3	7.6	9.0	8.3	9.6	7.5	29.8	5.4	3.7
Cycle Q Clear(g_c), s	12.5	15.8	3.8	6.3	7.6	9.0	13.7	9.6	7.5	39.4	5.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	779	347	158	524	234	415	1751	781	334	1751	781
V/C Ratio(X)	0.88	0.83	0.23	0.81	0.60	0.71	0.26	0.35	0.29	0.70	0.29	0.21
Avail Cap(c_a), veh/h	298	924	412	188	705	314	415	1751	781	334	1751	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	36.9	33.5	28.8	40.2	35.8	36.5	16.6	13.8	13.3	18.8	8.6	8.3
Incr Delay (d2), s/veh	24.1	5.6	0.3	19.0	1.1	4.7	1.5	0.6	0.9	8.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	6.9	1.4	3.5	3.2	3.6	1.5	3.5	2.6	4.0	1.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	39.1	29.1	59.2	37.0	41.2	18.1	14.4	14.2	26.7	8.9	8.7
LnGrp LOS	E	D	C	E	D	D	B	B	B	C	A	A
Approach Vol, veh/h		978			610			946			898	
Approach Delay, s/veh		43.9			42.7			14.8			13.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	50.5	13.8	25.7	50.5	20.3	19.2
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	39.4	9.6	23.6	39.4	15.2	18.0
Max Q Clear Time (g_c+I1), s	15.7	8.3	17.8	41.4	14.5	11.0
Green Ext Time (p_c), s	5.5	0.0	2.1	0.0	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	86	44	0	0	42
Future Vol, veh/h	71	86	44	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	93	48	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	48	0	-	0	295	48
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1553	-	-	-	694	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	658	1018
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	1018
HCM Lane V/C Ratio	0.05	-	-	-	0.045
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	86	44	20	12	0
Future Vol, veh/h	0	86	44	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	93	48	22	13	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	152	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	93	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1524	-	-	-	837	1004
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	837	1004
Mov Cap-2 Maneuver	-	-	-	-	837	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

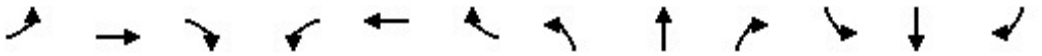
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1524	-	-	-	837
HCM Lane V/C Ratio	-	-	-	-	0.016
HCM Control Delay (s)	0	-	-	-	9.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Cumulative Year 2042 With Project Recommended Mitigation

AM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	464	103	228	887	185	195	643	136	199	620	174
Future Volume (veh/h)	244	464	103	228	887	185	195	643	136	199	620	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	265	504	112	248	964	201	212	699	148	216	674	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	335	1067	476	327	1059	472	274	900	402	274	900	402
Arrive On Green	0.10	0.30	0.30	0.10	0.30	0.30	0.03	0.08	0.08	0.08	0.26	0.26
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	265	504	112	248	964	201	212	699	148	216	674	189
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	6.8	10.5	4.8	6.3	23.7	9.2	5.5	17.5	8.0	5.6	15.8	9.2
Cycle Q Clear(g_c), s	6.8	10.5	4.8	6.3	23.7	9.2	5.5	17.5	8.0	5.6	15.8	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	1067	476	327	1059	472	274	900	402	274	900	402
V/C Ratio(X)	0.79	0.47	0.24	0.76	0.91	0.43	0.77	0.78	0.37	0.79	0.75	0.47
Avail Cap(c_a), veh/h	335	1067	476	442	1089	486	274	900	402	274	900	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	25.5	23.6	39.7	30.3	25.3	43.0	38.7	34.3	40.6	30.8	28.4
Incr Delay (d2), s/veh	12.1	0.3	0.3	5.2	11.1	0.6	9.4	4.7	1.8	14.1	5.7	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.1	1.7	2.7	10.7	3.2	2.7	8.7	3.3	2.8	7.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	25.9	23.8	44.9	41.5	25.9	52.4	43.4	36.2	54.8	36.5	32.3
LnGrp LOS	D	C	C	D	D	C	D	D	D	D	D	C
Approach Vol, veh/h		881			1413			1059			1079	
Approach Delay, s/veh		33.4			39.8			44.2			39.4	
Approach LOS		C			D			D			D	

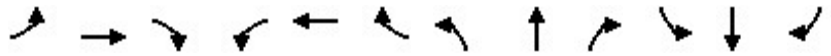
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	28.8	14.8	33.4	13.0	28.8	15.0	33.2
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	7.2	22.2	11.6	25.0	7.2	22.2	8.8	27.8
Max Q Clear Time (g_c+I1), s	7.6	19.5	8.3	12.5	7.5	17.8	8.8	25.7
Green Ext Time (p_c), s	0.0	1.3	0.2	2.7	0.0	1.9	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	34	86	69	11	85	17	656	17	54	932	51
Future Volume (veh/h)	118	34	86	69	11	85	17	656	17	54	932	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	37	93	75	12	92	18	713	18	59	1013	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	190	50	101	154	41	146	36	1127	955	76	2221	990
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.61	0.61	0.04	0.63	0.63
Sat Flow, veh/h	649	250	507	487	204	731	1767	1856	1572	1767	3526	1572
Grp Volume(v), veh/h	258	0	0	179	0	0	18	713	18	59	1013	55
Grp Sat Flow(s),veh/h/ln	1406	0	0	1421	0	0	1767	1856	1572	1767	1763	1572
Q Serve(g_s), s	6.1	0.0	0.0	0.0	0.0	0.0	0.9	22.1	0.4	3.0	13.4	1.2
Cycle Q Clear(g_c), s	16.2	0.0	0.0	10.1	0.0	0.0	0.9	22.1	0.4	3.0	13.4	1.2
Prop In Lane	0.50		0.36	0.42		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	0	0	341	0	0	36	1127	955	76	2221	990
V/C Ratio(X)	0.76	0.00	0.00	0.52	0.00	0.00	0.51	0.63	0.02	0.78	0.46	0.06
Avail Cap(c_a), veh/h	341	0	0	341	0	0	98	1127	955	143	2221	990
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.88	0.88	0.88	0.69	0.69	0.69
Uniform Delay (d), s/veh	35.3	0.0	0.0	32.6	0.0	0.0	43.7	11.3	7.0	42.7	8.7	6.4
Incr Delay (d2), s/veh	9.4	0.0	0.0	1.5	0.0	0.0	9.4	2.4	0.0	11.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	0.0	3.5	0.0	0.0	0.5	8.0	0.1	1.5	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	0.0	0.0	34.1	0.0	0.0	53.1	13.7	7.1	53.9	9.1	6.5
LnGrp LOS	D	A	A	C	A	A	D	B	A	D	A	A
Approach Vol, veh/h		258			179			749			1127	
Approach Delay, s/veh		44.7			34.1			14.5			11.3	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	59.1		22.5	6.3	61.2		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	7.3	51.2		18.0	5.0	53.5		18.0
Max Q Clear Time (g_c+I1), s	5.0	24.1		18.2	2.9	15.4		12.1
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	8.2		0.4

Intersection Summary		
HCM 6th Ctrl Delay		17.8
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	386	45	211	1109	65	124	430	129	95	625	449
Future Volume (veh/h)	118	386	45	211	1109	65	124	430	129	95	625	449
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	128	420	49	229	1205	71	135	467	140	103	679	488
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	157	992	442	270	1219	544	176	1118	499	275	1118	499
Arrive On Green	0.09	0.28	0.28	0.15	0.35	0.35	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	477	3526	1572	807	3526	1572
Grp Volume(v), veh/h	128	420	49	229	1205	71	135	467	140	103	679	488
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	477	1763	1572	807	1763	1572
Q Serve(g_s), s	5.0	6.8	1.6	8.8	23.8	2.2	10.8	7.3	4.7	8.1	11.4	21.5
Cycle Q Clear(g_c), s	5.0	6.8	1.6	8.8	23.8	2.2	22.2	7.3	4.7	15.4	11.4	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	992	442	270	1219	544	176	1118	499	275	1118	499
V/C Ratio(X)	0.82	0.42	0.11	0.85	0.99	0.13	0.77	0.42	0.28	0.38	0.61	0.98
Avail Cap(c_a), veh/h	157	992	442	273	1219	544	176	1118	499	275	1118	499
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	31.3	20.5	18.7	28.9	22.8	15.7	32.1	18.8	17.9	24.9	20.2	23.7
Incr Delay (d2), s/veh	27.6	0.3	0.1	21.2	23.0	0.1	26.5	1.1	1.4	3.5	2.2	33.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.5	0.5	5.0	12.3	0.7	3.4	2.8	1.7	1.7	4.4	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	20.8	18.8	50.1	45.7	15.8	58.6	20.0	19.3	28.4	22.4	57.0
LnGrp LOS	E	C	B	D	D	B	E	B	B	C	C	E
Approach Vol, veh/h		597			1505			742			1270	
Approach Delay, s/veh		28.8			45.0			26.9			36.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	28.0	16.5	25.5	28.0	12.0	30.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	10.8	19.6	22.2	6.2	24.2
Max Q Clear Time (g_c+I1), s	24.2	10.8	8.8	23.5	7.0	25.8
Green Ext Time (p_c), s	0.0	0.0	1.9	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	74	102	0	0	63
Future Vol, veh/h	21	74	102	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	23	80	111	0	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	111	0	-	0	237	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	126	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1473	-	-	-	749	940
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1473	-	-	-	737	940
Mov Cap-2 Maneuver	-	-	-	-	737	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1473	-	-	-	940
HCM Lane V/C Ratio	0.015	-	-	-	0.073
HCM Control Delay (s)	7.5	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	74	102	6	18	0
Future Vol, veh/h	0	74	102	6	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	80	111	7	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	195	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1464	-	-	-	792	935
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1464	-	-	-	792	935
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

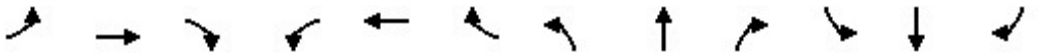
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1464	-	-	-	792
HCM Lane V/C Ratio	-	-	-	-	0.025
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Cumulative Year 2042 With Project Recommended Mitigation

PM Peak Hour

HCM 6th Signalized Intersection Summary
1: Fowler Avenue & Ashlan Avenue

02/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	755	208	167	631	153	257	805	118	396	1015	206
Future Volume (veh/h)	264	755	208	167	631	153	257	805	118	396	1015	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	287	821	226	182	686	166	279	875	128	430	1103	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	328	866	386	221	756	337	320	1007	449	472	1163	519
Arrive On Green	0.10	0.25	0.25	0.06	0.21	0.21	0.03	0.09	0.09	0.14	0.33	0.33
Sat Flow, veh/h	3428	3526	1572	3428	3526	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	287	821	226	182	686	166	279	875	128	430	1103	224
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1763	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	7.4	20.6	11.4	4.7	17.1	8.3	7.3	22.0	6.8	11.1	27.5	10.0
Cycle Q Clear(g_c), s	7.4	20.6	11.4	4.7	17.1	8.3	7.3	22.0	6.8	11.1	27.5	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	866	386	221	756	337	320	1007	449	472	1163	519
V/C Ratio(X)	0.88	0.95	0.59	0.82	0.91	0.49	0.87	0.87	0.29	0.91	0.95	0.43
Avail Cap(c_a), veh/h	328	866	386	221	756	337	320	1007	449	472	1163	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.13	0.13	0.13	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	33.4	29.9	41.6	34.5	31.0	43.1	39.1	32.2	38.3	29.4	23.6
Incr Delay (d2), s/veh	22.3	19.2	2.3	21.6	14.7	1.1	3.7	1.5	0.2	21.6	16.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	10.4	4.2	2.5	8.3	3.0	3.3	10.4	2.6	5.8	13.3	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	52.6	32.2	63.2	49.2	32.2	46.8	40.6	32.4	59.9	45.9	26.2
LnGrp LOS	E	D	C	E	D	C	D	D	C	E	D	C
Approach Vol, veh/h		1334			1034			1282			1757	
Approach Delay, s/veh		51.3			48.9			41.1			46.8	
Approach LOS		D			D			D			D	

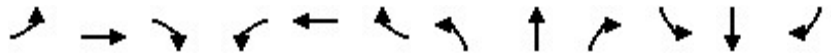
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	31.5	12.0	28.3	14.2	35.5	14.8	25.5
Change Period (Y+Rc), s	5.8	5.8	6.2	6.2	5.8	5.8	6.2	6.2
Max Green Setting (Gmax), s	12.4	25.7	5.8	22.1	8.4	29.7	8.6	19.3
Max Q Clear Time (g_c+I1), s	13.1	24.0	6.7	22.6	9.3	29.5	9.4	19.1
Green Ext Time (p_c), s	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	13	62	28	15	66	44	935	39	149	899	109
Future Volume (veh/h)	122	13	62	28	15	66	44	935	39	149	899	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	133	14	67	30	16	72	48	1016	42	162	977	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	21	77	96	63	170	69	1081	916	175	1192	1010
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.58	0.58	0.07	0.43	0.43
Sat Flow, veh/h	870	126	454	274	371	1010	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	214	0	0	118	0	0	48	1016	42	162	977	118
Grp Sat Flow(s),veh/h/ln	1450	0	0	1655	0	0	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	0.0	2.4	45.5	1.0	8.2	41.7	4.0
Cycle Q Clear(g_c), s	12.9	0.0	0.0	5.7	0.0	0.0	2.4	45.5	1.0	8.2	41.7	4.0
Prop In Lane	0.62		0.31	0.25		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	0	0	329	0	0	69	1081	916	175	1192	1010
V/C Ratio(X)	0.69	0.00	0.00	0.36	0.00	0.00	0.70	0.94	0.05	0.93	0.82	0.12
Avail Cap(c_a), veh/h	353	0	0	377	0	0	98	1081	916	175	1192	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.72	0.72	0.72	0.40	0.40	0.40
Uniform Delay (d), s/veh	36.3	0.0	0.0	33.5	0.0	0.0	42.7	17.3	8.1	41.7	21.0	10.3
Incr Delay (d2), s/veh	4.8	0.0	0.0	0.7	0.0	0.0	8.9	12.8	0.1	25.9	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	2.3	0.0	0.0	1.2	19.3	0.3	4.8	18.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	0.0	34.1	0.0	0.0	51.7	30.1	8.1	67.6	23.7	10.4
LnGrp LOS	D	A	A	C	A	A	D	C	A	E	C	B
Approach Vol, veh/h		214			118			1106			1257	
Approach Delay, s/veh		41.1			34.1			30.2			28.1	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.4	56.9		19.7	8.0	62.3		19.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	8.9	49.6		18.0	5.0	53.5		18.0
Max Q Clear Time (g_c+I1), s	10.2	47.5		14.9	4.4	43.7		7.7
Green Ext Time (p_c), s	0.0	1.4		0.3	0.0	5.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	864	102	130	397	77	130	703	279	178	536	217
Future Volume (veh/h)	326	864	102	130	397	77	130	703	279	178	536	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	354	939	111	141	432	84	141	764	303	193	583	236
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	357	1047	467	161	655	292	257	1476	658	215	1476	658
Arrive On Green	0.20	0.30	0.30	0.09	0.19	0.19	0.42	0.42	0.42	0.14	0.14	0.14
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	662	3526	1572	525	3526	1572
Grp Volume(v), veh/h	354	939	111	141	432	84	141	764	303	193	583	236
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	662	1763	1572	525	1763	1572
Q Serve(g_s), s	18.0	23.0	4.8	7.1	10.2	4.1	17.8	14.5	12.5	23.2	13.6	12.2
Cycle Q Clear(g_c), s	18.0	23.0	4.8	7.1	10.2	4.1	31.4	14.5	12.5	37.7	13.6	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	1047	467	161	655	292	257	1476	658	215	1476	658
V/C Ratio(X)	0.99	0.90	0.24	0.88	0.66	0.29	0.55	0.52	0.46	0.90	0.40	0.36
Avail Cap(c_a), veh/h	357	1097	489	161	705	314	257	1476	658	215	1476	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	35.8	30.3	23.9	40.4	34.0	31.5	30.6	19.4	18.8	49.5	28.4	27.8
Incr Delay (d2), s/veh	45.0	9.6	0.3	37.8	2.1	0.5	8.1	1.3	2.3	23.2	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	10.4	1.7	4.6	4.3	1.5	3.2	5.6	4.5	6.0	6.4	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	39.9	24.2	78.2	36.1	32.0	38.8	20.7	21.2	72.7	28.8	28.6
LnGrp LOS	F	D	C	E	D	C	D	C	C	E	C	C
Approach Vol, veh/h		1404			657			1208			1012	
Approach Delay, s/veh		49.0			44.6			22.9			37.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	43.5	14.0	32.5	43.5	24.0	22.5
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	36.4	8.2	28.0	36.4	18.2	18.0
Max Q Clear Time (g_c+I1), s	33.4	9.1	25.0	39.7	20.0	12.2
Green Ext Time (p_c), s	1.9	0.0	1.8	0.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	127	65	0	0	42
Future Vol, veh/h	71	127	65	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	138	71	0	0	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	71	0	-	0	363	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	292	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1523	-	-	-	634	989
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1523	-	-	-	599	989
Mov Cap-2 Maneuver	-	-	-	-	599	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1523	-	-	-	989
HCM Lane V/C Ratio	0.051	-	-	-	0.046
HCM Control Delay (s)	7.5	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	127	65	20	12	0
Future Vol, veh/h	0	127	65	20	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	138	71	22	13	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	220	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1495	-	-	-	766	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1495	-	-	-	766	975
Mov Cap-2 Maneuver	-	-	-	-	766	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1495	-	-	-	766
HCM Lane V/C Ratio	-	-	-	-	0.017
HCM Control Delay (s)	0	-	-	-	9.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Appendix-D

Collision Data Worksheets

BerkeleySafeTREC

Crash Details for: Case ID 7178356

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	01/29/2016 14:38
Location (Intersection)	Fowler Av & Ashlan Av
Dist. & Dir. from Intersection	48.00 ft North
State Highway	No
Geocoded Location	36.7941618, -119.68226

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	- - Not Stated
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	North	E - Making Left Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	63	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8027183

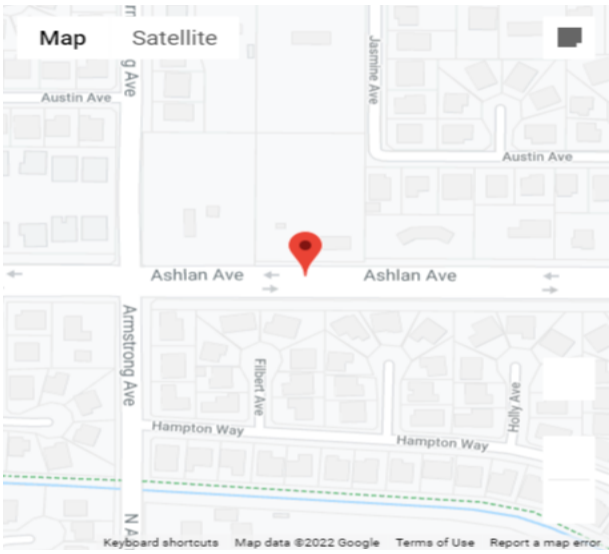
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	04/18/2016 23:06
Location (Intersection)	Ashlan Av & Armstrong Av
Dist. & Dir. from Intersection	414.00 ft East
State Highway	No
Geocoded Location	36.79395, -119.6716871

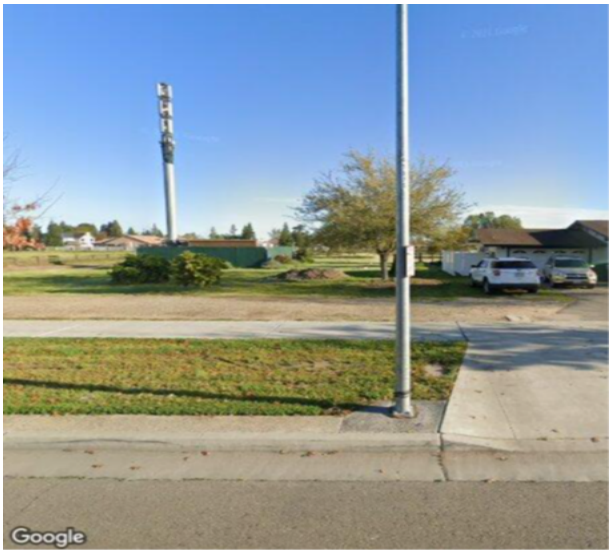
Type of Crash	A - Head-On
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	20	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8133217

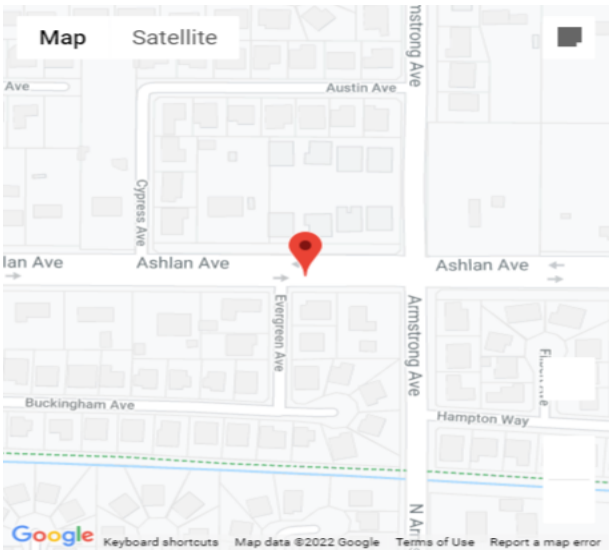
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	10/31/2016 13:00
Location (Intersection)	Ashlan Av & Evergreen
Dist. & Dir. from Intersection	60.00 ft East
State Highway	No
Geocoded Location	36.7938762, -119.6739853

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	A - Stopped

Victims: 4

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	M - Male	26	0 - No Injury
1	2 - Passenger	F - Female	35	0 - No Injury
1	2 - Passenger	F - Female	30	0 - No Injury

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	F - Female	49	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8156306

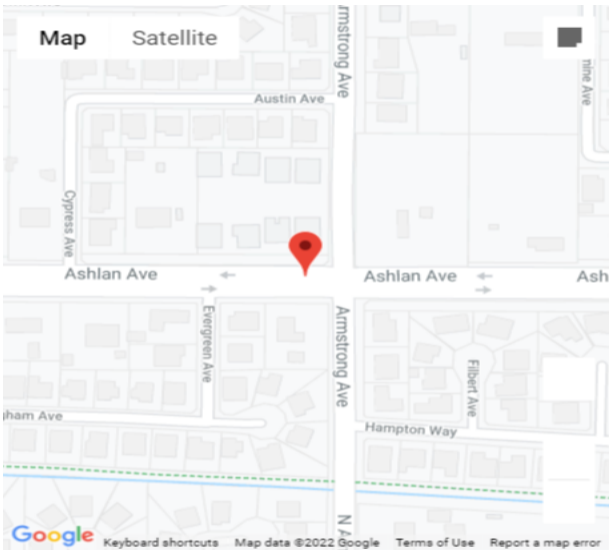
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	09/19/2016 15:11
Location (Intersection)	Ashlan Av & Armstrong Av
Dist. & Dir. from Intersection	90.00 ft West
State Highway	No
Geocoded Location	36.7939556, -119.6734071

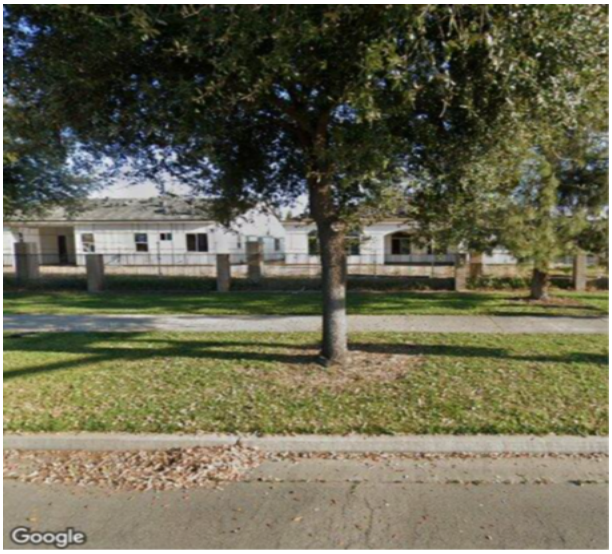
Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	04 - Following Too Closely
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	H - Slowing/Stopping

Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	F - Female	43	7 - Possible Injury
2	2 - Passenger	M - Male	8	0 - No Injury

BerkeleySafeTREC

Crash Details for: Case ID 8465315

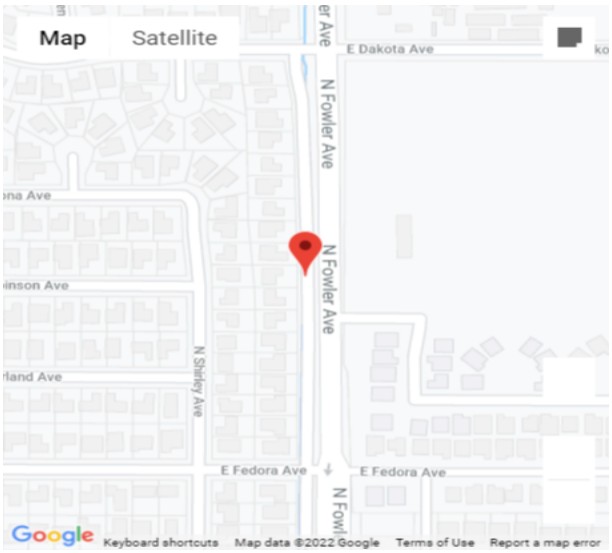
Crash Information

County	Fresno
City	Fresno
Date & Time (M/D/Y)	11/28/2016 19:07
Location (Intersection)	Fowler Av & Dakota Av
Dist. & Dir. from Intersection	655.00 ft South
State Highway	No
Geocoded Location	36.7848792, -119.6823446

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	1 - Fatal
PCF Violation Category	18 - Other Than Driver (or Pedestrian)
Weather	B - Cloudy
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight
2	3 - Parked Vehicle	D - Pickup or Panel Truck	No	-	O - Parked

Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	M - Male	18	6 - Suspected Minor Injury
1	1 - Driver	M - Male	54	1 - Killed

BerkeleySafeTREC

Crash Details for: Case ID 8465501

Crash Information

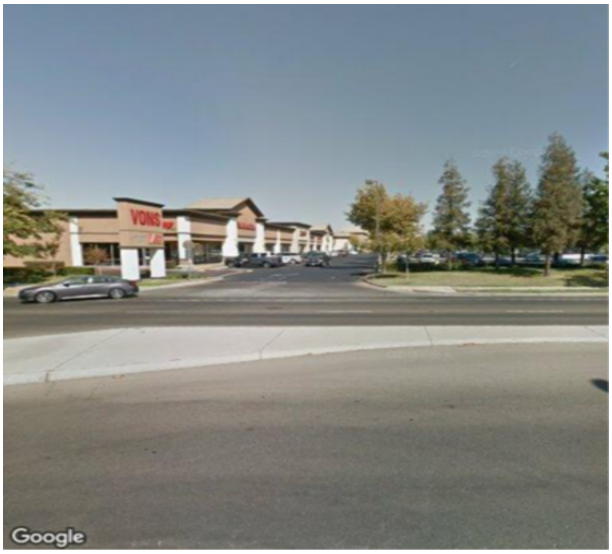
County	Fresno
City	Clovis
Date & Time (M/D/Y)	07/12/2017 13:04
Location (Intersection)	Ashlan Av & Renn Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7939001, -119.6836399

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	2 - Injury (Severe)
PCF Violation Category	18 - Other Than Driver (or Pedestrian)
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	75	5 - Suspected Serious Injury

BerkeleySafeTREC

Crash Details for: Case ID 8519032

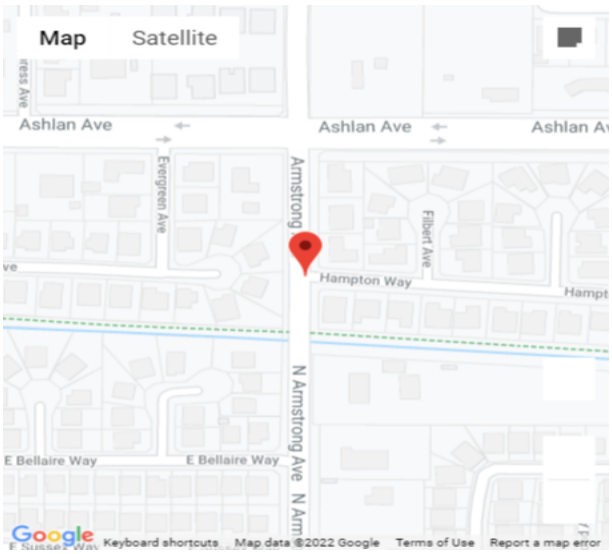
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	12/11/2017 15:00
Location (Intersection)	Hampton Wy & Armstrong Av
Dist. & Dir. from Intersection	9.00 ft East
State Highway	No
Geocoded Location	36.7927778, -119.6730394

Type of Crash	D - Broadside
Motor Vehicle Involved With	G - Bicycle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	05 - Wrong Side of Road
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	Yes
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	4 - Bicyclist	L - Bicycle	Yes	South	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	West	D - Making Right Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	4 - Bicyclist	F - Female	12	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8541937

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	02/02/2018 06:25
Location (Intersection)	Fowler Av & Ashlan Av
Dist. & Dir. from Intersection	315.00 ft North
State Highway	No
Geocoded Location	36.7948952, -119.6822586

Type of Crash	D - Broadside
Motor Vehicle Involved With	G - Bicycle
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	05 - Wrong Side of Road
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	Yes
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	4 - Bicyclist	L - Bicycle	Yes	North	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	East	D - Making Right Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	4 - Bicyclist	M - Male	14	6 - Suspected Minor Injury

BerkeleySafeTREC

Crash Details for: Case ID 8560677

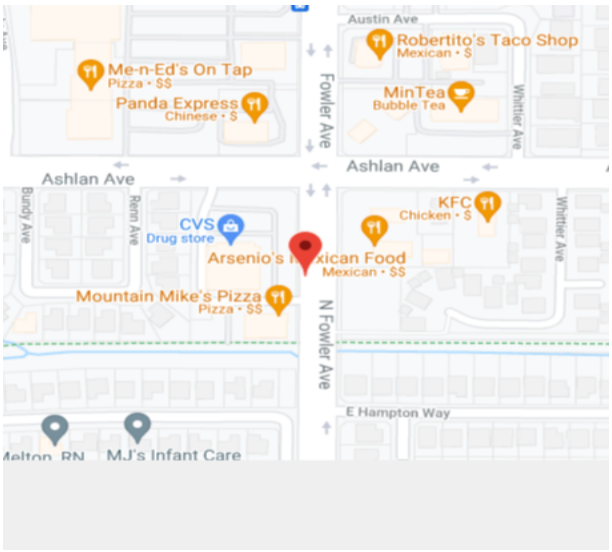
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	02/15/2018 18:06
Location (Intersection)	Fowler Av & Ashlan Av
Dist. & Dir. from Intersection	326.00 ft South
State Highway	No
Geocoded Location	36.7931366, -119.6822662

Type of Crash	G - Vehicle/Pedestrian
Motor Vehicle Involved With	B - Pedestrian
Crash Severity	2 - Injury (Severe)
PCF Violation Category	11 - Pedestrian Violation
Weather	A - Clear
Alcohol Involved	Yes

Pedestrian Accident	Yes	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	2 - Pedestrian	N - Pedestrian	Yes	-	R - Other
2	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	South	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	3 - Pedestrian	M - Male	65	5 - Suspected Serious Injury

BerkeleySafeTREC

Crash Details for: Case ID 8585862

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	03/17/2018 19:03
Location (Intersection)	Ashlan Av & Armstrong Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7939491, -119.6731033

Type of Crash	B - Sideswipe
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	04 - Following Too Closely
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	Yes	**Truck Accident**	No

Map View

Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	A - Stopped

Victims: 3

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	49	7 - Possible Injury
2	2 - Passenger	F - Female	70	7 - Possible Injury
2	2 - Passenger	F - Female	1	0 - No Injury

BerkeleySafeTREC

Crash Details for: Case ID 8854722

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	04/22/2019 21:54
Location (Intersection)	Ashlan Av & Bundy Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7941399, -119.6846466

Type of Crash	B - Sideswipe
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	12 - Traffic Signals and Signs
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	K - Highway Construction Equipment	Yes	West	D - Making Right Turn
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	M - Male	13	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8854785

Crash Information

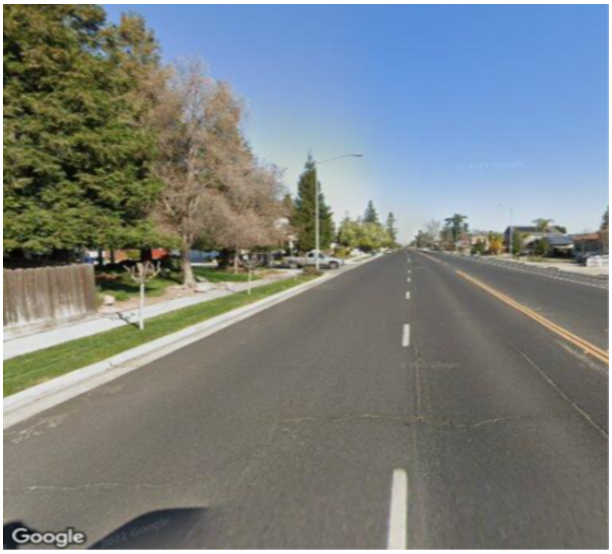
County	Fresno
City	Clovis
Date & Time (M/D/Y)	03/21/2019 08:57
Location (Intersection)	Armstrong Av & Austin Av
Dist. & Dir. from Intersection	117.00 ft South
State Highway	No
Geocoded Location	36.7950401, -119.673111

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	03 - Unsafe Speed
Weather	B - Cloudy
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	Yes	**Truck Accident**	No

Map View

Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	Yes	South	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	I - Other Bus	No	South	F - Making U-Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	32	6 - Suspected Minor Injury

BerkeleySafeTREC

Crash Details for: Case ID 8882516

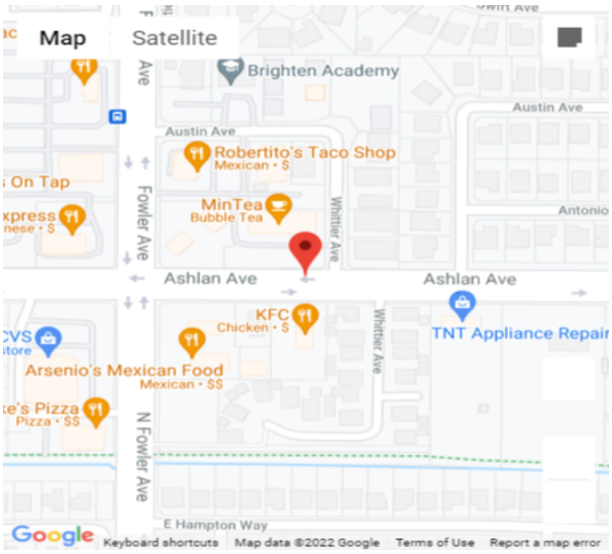
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	05/30/2019 21:16
Location (Intersection)	Ashlan Av & Whittier Av
Dist. & Dir. from Intersection	74.00 ft West
State Highway	No
Geocoded Location	36.7940216, -119.6808014

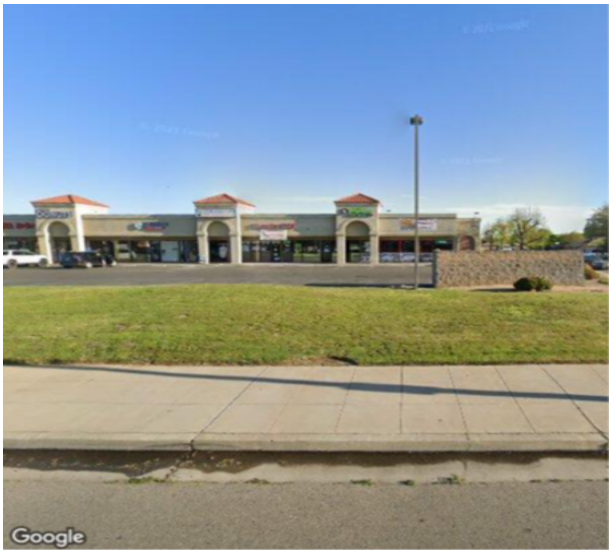
Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	09 - Automobile Right of Way
Weather	A - Clear
Alcohol Involved	Yes

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	Yes	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	L - Entering Traffic
2	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	No	East	B - Proceeding Straight

Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	M - Male	13	0 - No Injury
2	1 - Driver	M - Male	41	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8977705

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	11/01/2019 13:58
Location (Intersection)	Ashlan Av & Fowler Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7940292, -119.6822586

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View

Parties: 4

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	A - Stopped
3	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	West	A - Stopped
4	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	- - Not Stated

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	84	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9004516

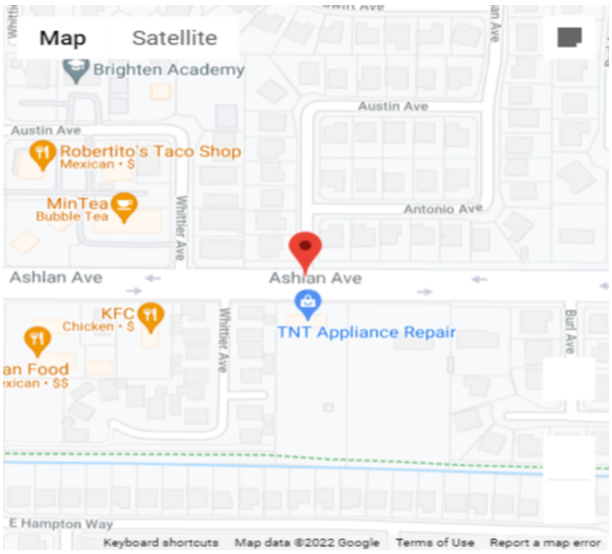
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	12/12/2019 08:10
Location (Intersection)	Ashlan Av & Laverne Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7940102, -119.6795502

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	09 - Automobile Right of Way
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	North	E - Making Left Turn
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	F - Female	66	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9010687

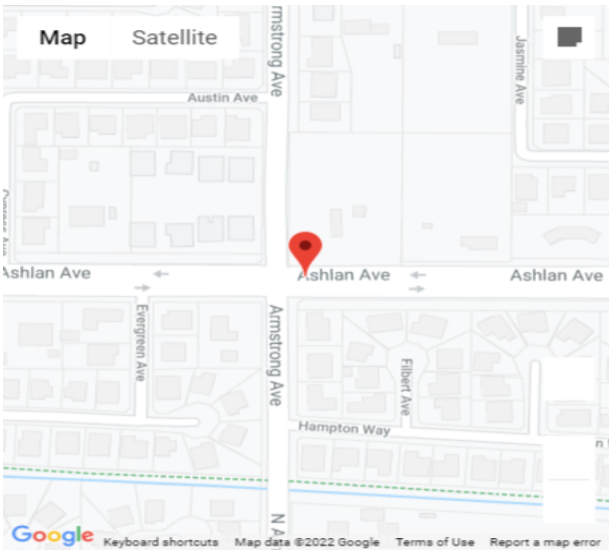
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	11/19/2019 15:03
Location (Intersection)	Ashlan Av & Armstrong Av
Dist. & Dir. from Intersection	65.00 ft East
State Highway	No
Geocoded Location	36.7939491, -119.6728745

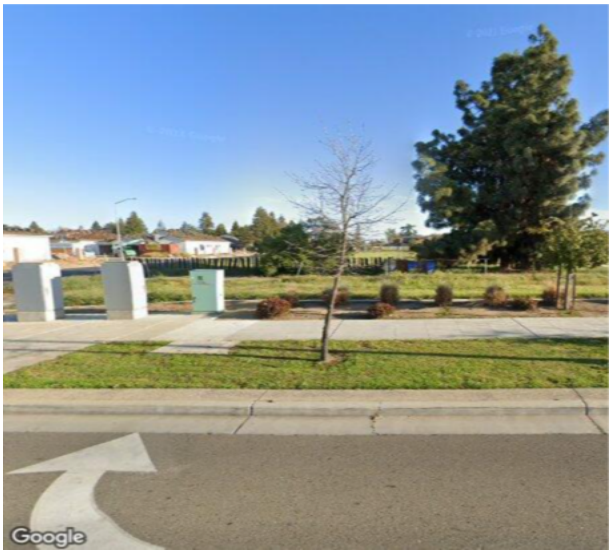
Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	21 - Unsafe Starting or Backing
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	A - Stopped

Victims: 4

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	F - Female	14	0 - No Injury
1	2 - Passenger	M - Male	13	0 - No Injury
2	2 - Passenger	F - Female	12	7 - Possible Injury

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	M - Male	16	0 - No Injury

BerkeleySafeTREC

Crash Details for: Case ID 9079409

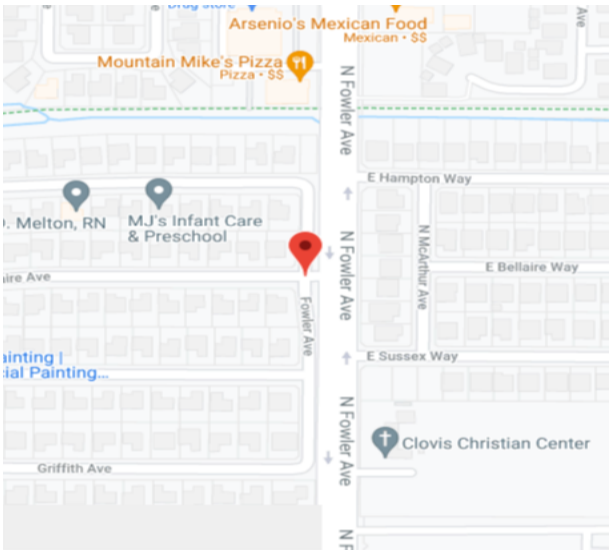
Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	02/13/2020 07:36
Location (Intersection)	Fowler Av & Bellaire Av
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7912903, -119.6824417

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	09 - Automobile Right of Way
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	E - Making Left Turn
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	41	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 9175487

Crash Information

County	Fresno
City	Clovis
Date & Time (M/D/Y)	10/05/2020 21:02
Location (Intersection)	Bundy Av & Ashland Av
Dist. & Dir. from Intersection	8.00 ft South
State Highway	No
Geocoded Location	36.7941093, -119.6846466

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	00 - Unknown
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View

Street View

Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	M - Male	21	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 81285990

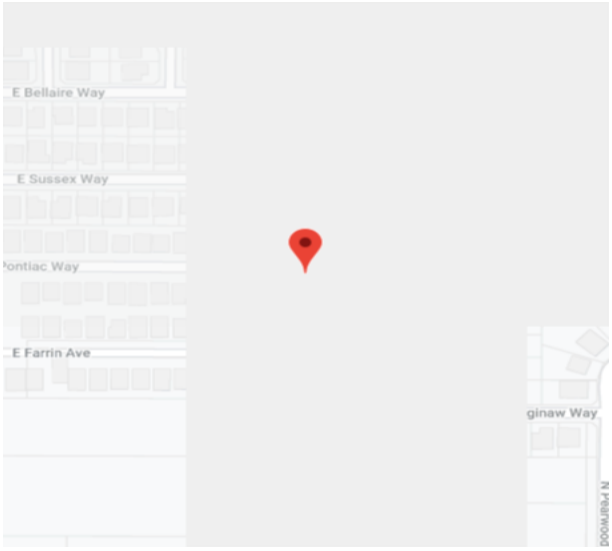
Crash Information

County	Fresno
City	Fresno
Date & Time (M/D/Y)	08/10/2020 16:47
Location (Intersection)	Armstrong Ave & Pontiac Way
Dist. & Dir. from Intersection	At Intersection
State Highway	No
Geocoded Location	36.7899017, -119.6731033

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	A - Clear
Alcohol Involved	No

Pedestrian Accident	No	**Bicycle Accident**	No
Motorcycle Accident	No	**Truck Accident**	No

Map View



Street View

Parties: 2

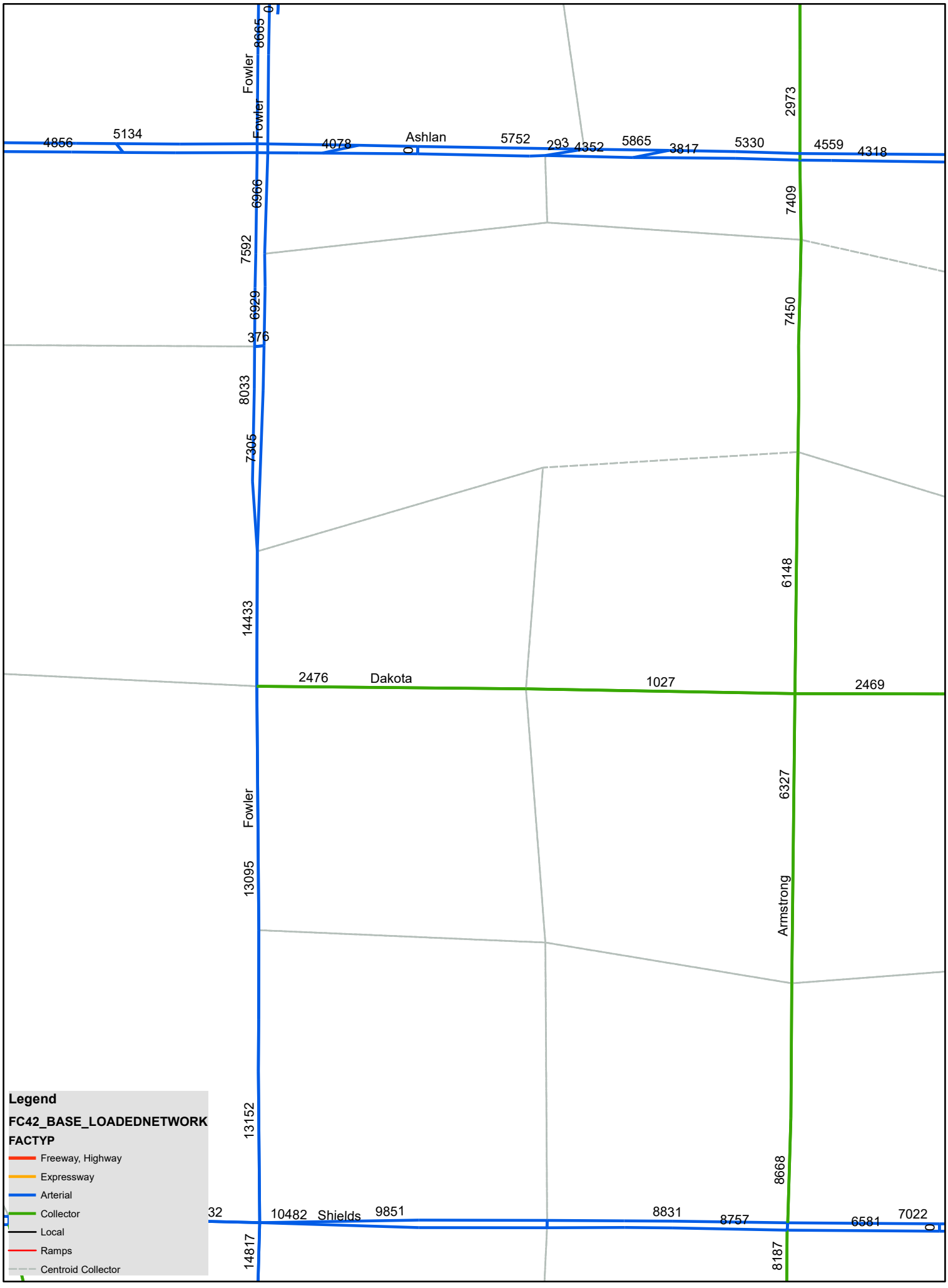
Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	Yes	South	A - Stopped
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	M - Male	1	7 - Possible Injury

Appendix - E

2042 Future Year Loaded Network


Fowler
8665
Fowler
4856
5134
4078
Ashlan
5752
293
4352
5865
3817
5330
4559
4318
2973
7409
7450
6966
7592
6929
376
8033
7305
14433
6148
2476
Dakota
1027
2469
Fowler
13095
6327
Armstrong
13152
8668
32
10482
Shields
9851
8831
8757
6581
7022
14817
8187
Legend
FC42_BASE_LOADEDNETWORK
FACTYP
Freeway, Highway
Expressway
Arterial
Collector
Local
Ramps
Centroid Collector

Appendix - F

VMT Analysis

DKS 1970 BROADWAY, SUITE 740, OAKLAND, CA 94612 • 510.763.2061 • DKSASSOCIATES.COM

TECHNICAL MEMORANDUM

DATE: December 27, 2021

TO: Jeff Stine | VRPA Technologies

FROM: Erin Vaca | DKS Associates
Jim Damkowitch | DKS Associates

SUBJECT: Paloutzian Residential Project Analysis Project #21203

This memorandum documents analysis of the Paloutzian residential project using the FCOG travel demand model and associated VMT scripts and spreadsheet tools. The project site is located on the north block face of East Dakota Avenue between North Fowler Avenue and North Armstrong Avenue and corresponds to the existing Transportation Analysis Zone (TAZ) 1016.

FCOG MODEL APPLICATON AND SELECT ZONE ASSIGNMENT

The project was modeled in the distributed version of the 2019 Base scenario of the FCOG travel demand model using the following steps:

1) Update TAZ level input files used in the truck and internal-external travel demand components of the FCOG model. Project land use was represented as 145 single family dwelling units in a new TAZ (2900). Other attributes such as the percentage of workers with workplaces outside the FCOG model area were copied from the parent TAZ 1016.

2) Apply Transportation Impact Analysis tool provided by FCOG to update the household, person, and parcel level inputs used by the DaySim activity and travel demand simulation component of the FCOG travel demand model.

3) Edit the roadway input network to represent the approximate access point to the project site from East Dakota Avenue as a centroid connector to a new TAZ 2900 (see **Figure 1** for edited input network).

4) Run With Project 2019 scenario

Following the main model run for the project scenario, the select link assignment application included as a post processing step in the FCOG model was run to trace project generated traffic

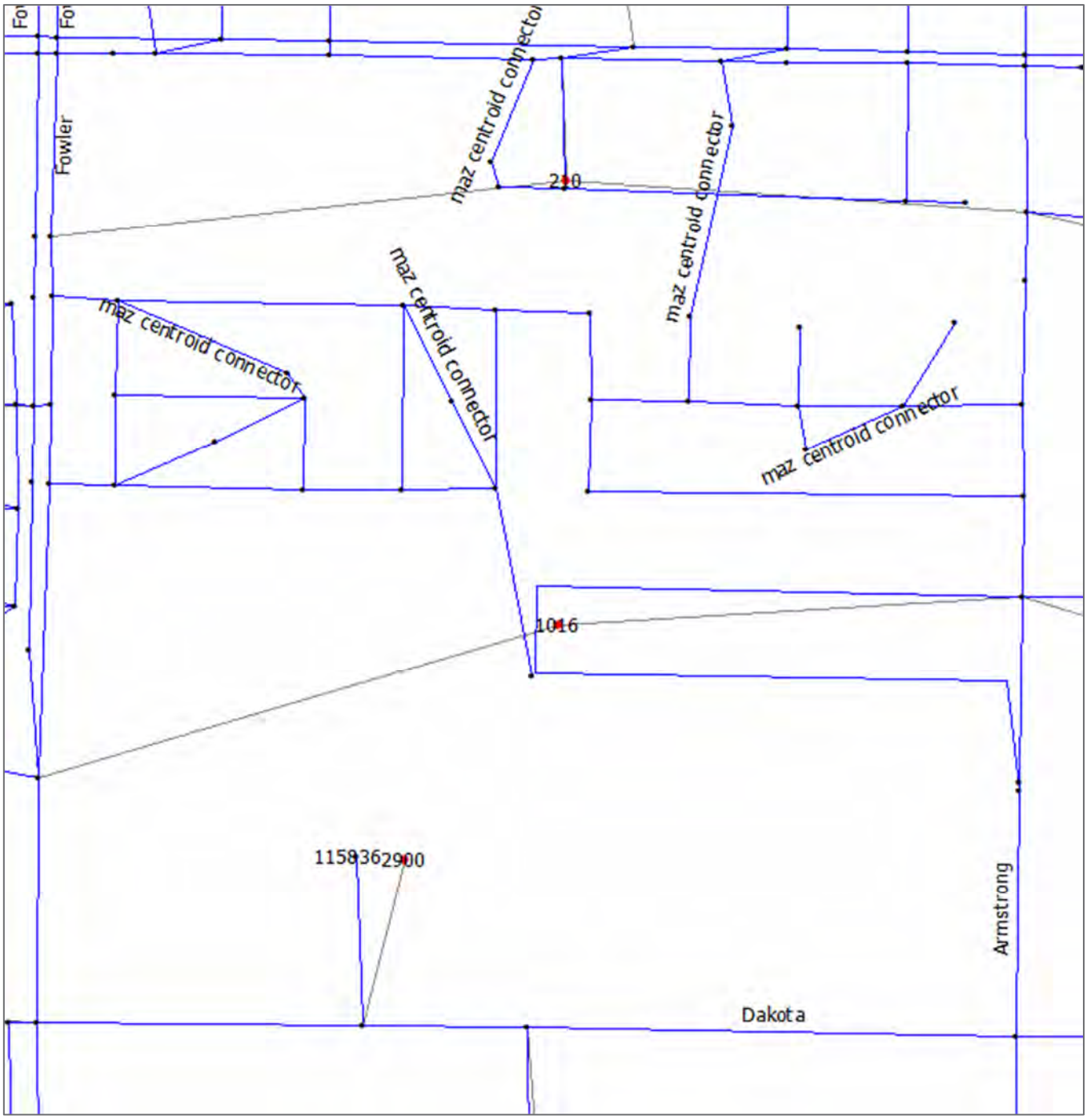


FIGURE 1. EDITED INPUT NETWORK

from the new TAZ. Plots for the AM peak hour, PM peak hour, and daily assignments are attached and volumes for other time periods are available upon request.

VMT ANALYSIS

THRESHOLD OF SIGNIFICANCE

The threshold of significance for the City of Fresno is 87 percent of the existing countywide or citywide average, according to the CEQA Guidelines for Vehicle Miles Traveled Thresholds for the City of Fresno. The countywide average VMT per capita as reported in the Fresno County SB 743 Implementation Regional Guidelines (FCOG, July 2020) is 16.1VMT per capita. The threshold of significance is therefore 14.0 VMT per capita (see Table B from the *Regional Guidelines* reproduced as **Figure 2**).

VMT SCREENING MAP AND LOOKUP VALUE

The VMT characteristics of the project site (TAZ 1016) were looked up using the VMT spreadsheet tool provided by FCOG. Results from the VMT spreadsheet tool are shown in **Figure 3**. Per FCOG, these results should be adjusted by a factor to account for changes in the model since the thresholds of significance were adopted. The VMT per capita adjustment factors are also shown in **Figure 3**. Accordingly, the VMT per capita for TAZ 1016 should be adjusted to 13.81, below the threshold of significance for the City of Fresno.

VMT FROM 2019 WITH PROJECT MODEL RUN

Although it is reasonable to assume that the proposed project would have similar VMT characteristics to its parent TAZ, this assumption was tested by updating the VMT tabulation spreadsheet with outputs from the 2019 With Project scenario. The VMT characteristics of the project site (TAZ 2900) were analyzed with the following steps:

1) Run VMT tabulation scripts provided by FCOG to summarize VMT generated by FCOG model area residents at the TAZ level

2) Copy outputs of the VMT tabulation scripts into the FCOG VMT summary spreadsheet tool

3) Update tabs storing Internal-external (IX) and external-internal (XI) VMT to include the new project site TAZ (2900).

Note that IX and XI VMT by TAZ is looked up in the spreadsheet tool based on a 2019 Base model run. The IX-XI VMT from the "parent" TAZ must be copied to any new TAZs that are created for project analysis. To avoid double counting this IX-XI VMT in the project analysis, only a portion of the original IX-XI VMT from the parent TAZ was allocated to the new TAZ. The allocation portion was based on the ratio of new households to total households in the parent and new TAZs (see **Table 1**). Outputs from the VMT spreadsheet tool are shown in **Figure 4**.

TABLE 1. ALLOCATION OF INTERNAL-EXTERNAL VMT TO PROJECT TAZ

TAZ	HOUSEHOLDS	PERCENTAGE	IX_VMT_P	XI_VMT_A	IX_TRPS_P	XI_TRPS_A
PARENT 1016	261	64.3%	554	501	11	9
PROJECT 2900	145	35.7%	308	278	6	5
TOTAL OR ORIGINAL VMT FOR TAZ 1016	406	100%	862	780	17	15

Source: DKS Associates

Per FCOG, these results should be adjusted by a factor to account for changes in the model since the thresholds of significance were adopted. The VMT per capita adjustment factors are also shown in **Figure 4**. Accordingly, the VMT per capita for the project TAZ is calculated as 12.14*1.09 or 13.24.

This result is below the threshold of significance.

Table B - VMT Thresholds for Residential and Office Projects in Fresno County

Jurisdiction	Residential Projects						Office Projects		
	Region - Fresno County			Region - Local Jurisdiction			Region - Fresno County		
	Regional Average VMT/Capita	VMT/Capita (13% threshold)	VMT/Capita (15% threshold)	Regional Average VMT/Capita	VMT/Capita (13% threshold)	VMT/Capita (15% threshold)	Regional Average VMT/Employee	VMT/Employee (13% threshold)	VMT/Employee (15% threshold)
Clovis	16.1	14.0	13.7	16.1	14.0	13.7	25.6	22.3	21.8
Coalinga	16.1	14.0	13.7	10.6	9.3	9.0	25.6	22.3	21.8
Firebaugh	16.1	14.0	13.7	14.5	12.6	12.3	25.6	22.3	21.8
Fowler	16.1	14.0	13.7	20.2	17.6	17.2	25.6	22.3	21.8
Fresno	16.1	14.0	13.7	13.2	11.5	11.2	25.6	22.3	21.8
Unincorporated County	16.1	14.0	13.7	31.8	27.7	27.0	25.6	22.3	21.8
Huron	16.1	14.0	13.7	16.1	14.0	13.7	25.6	22.3	21.8
Kerman	16.1	14.0	13.7	16.6	14.5	14.1	25.6	22.3	21.8
Kingsburg	16.1	14.0	13.7	25.0	21.7	21.2	25.6	22.3	21.8
Mendota	16.1	14.0	13.7	13.2	11.4	11.2	25.6	22.3	21.8
Orange Cove	16.1	14.0	13.7	12.0	10.4	10.2	25.6	22.3	21.8
Parlier	16.1	14.0	13.7	16.8	14.7	14.3	25.6	22.3	21.8
Reedley	16.1	14.0	13.7	17.0	14.8	14.5	25.6	22.3	21.8
San Joaquin	16.1	14.0	13.7	14.3	12.4	12.2	25.6	22.3	21.8
Sanger	16.1	14.0	13.7	15.4	13.4	13.1	25.6	22.3	21.8
Selma	16.1	14.0	13.7	17.8	15.5	15.1	25.6	22.3	21.8

Source: Fresno County SB 743 Implementation Regional Guidelines (Fresno Council of Governments, 2020)

FIGURE 2. FCOG REGIONAL VMT METRICS

Existing TAZ VMT Summary	
TAZ ID/Zone	1016
Existing TAZ Demographics	
Jurisdiction	Fresno
Households	248
Population	921
Household Size	3.71
Total Employment	13
VMT per capita	
IIVMT_CAP	11.44
IXVMT_CAP	1.71
VMT_CAP	13.15
VMT per employee	
IIVMT_EMP	4.36
XIVMT_EMP	5.01
VMT_EMP	9.38

Jurisdiction/Threshold	Previous	Current	Factor
Clovis	16.1	14.9	1.08
Coalinga	10.6	10.3	1.03
External			
Firebaugh	14.5	14.5	1.00
Fowler	20.2	19.3	1.04
Fresno	13.2	12.5	1.05
Fresno County	31.8	30.8	1.03
Huron	16.1	18.0	0.89
Kerman	16.6	18.2	0.91
Kingsburg	25.0	23.4	1.07
Mendota	13.2	13.0	1.01
Orange Cove	12.0	12.3	0.98
Parlier	16.8	18.0	0.93
Reedley	17.0	17.0	1.00
San Joaquin	14.3	15.6	0.91
Sanger	15.4	15.1	1.02
Selma	17.8	17.7	1.01
Entire County	**16.1**	**15.4**	**1.05**

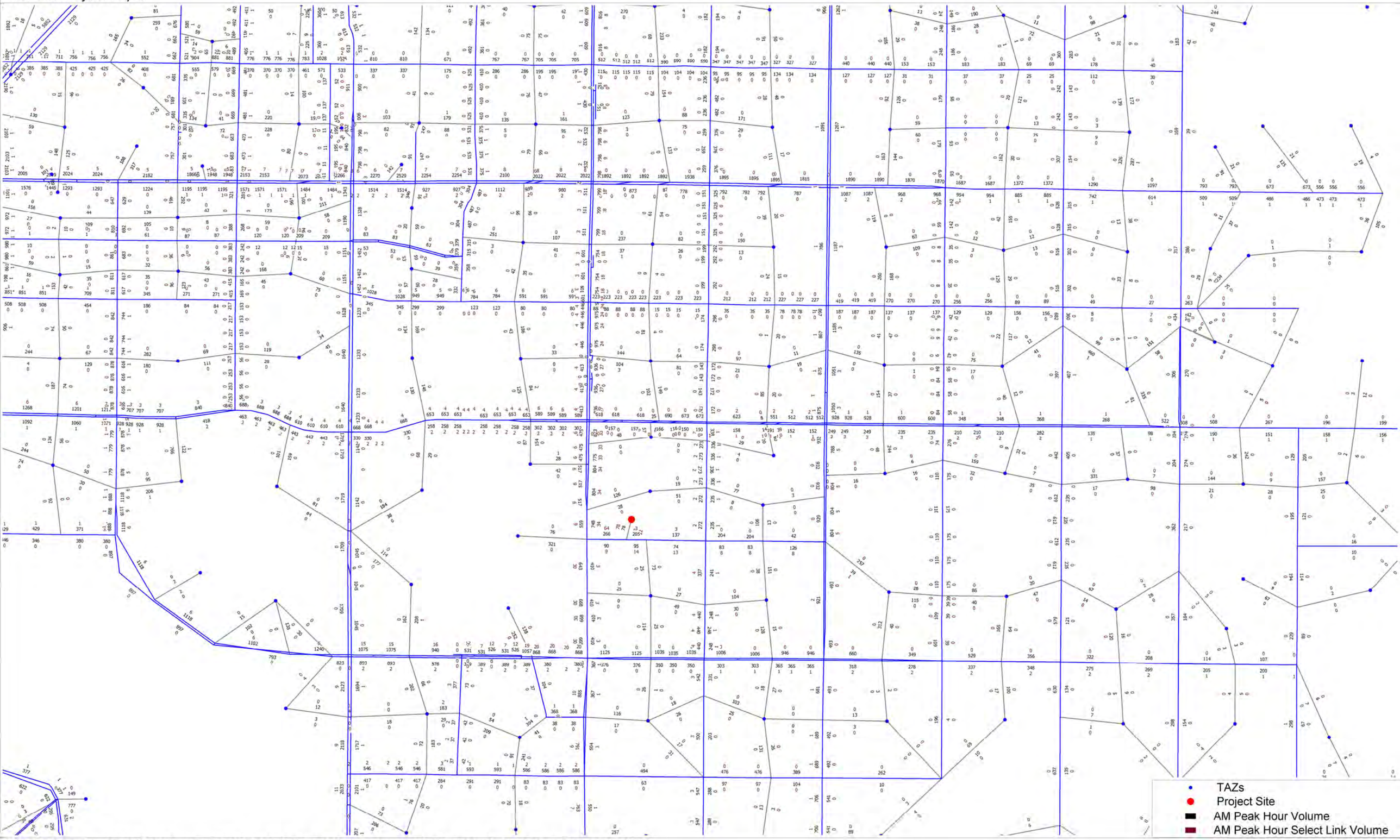
FIGURE 3 FCOG VMT SPREADSHEET TABULATION OUTPUT – 2019 BASE SCENARIO

Existing TAZ VMT Summary	
TAZ ID/Zone	2900
Existing TAZ Demographics	
Jurisdiction	Fresno County
Households	145
Population	492
Household Size	3.39
Total Employment	-
VMT per capita	
IIVMT_CAP	10.94
IXVMT_CAP	1.19
VMT_CAP	12.14
VMT per employee	
IIVMT_EMP	0.00
XIVMT_EMP	0.00
VMT_EMP	0.00

Jurisdiction/Threshold	Previous	Current	Factor
Clovis	16.1	14.5	1.11
Coalinga	10.6	9.9	1.07
External			
Firebaugh	14.5	16.4	0.88
Fowler	20.2	19.9	1.01
Fresno	13.2	12.1	1.09
Fresno County	31.8	31.1	1.02
Huron	16.1	18.8	0.85
Kerman	16.6	17.7	0.94
Kingsburg	25.0	21.8	1.15
Mendota	13.2	15.4	0.86
Orange Cove	12.0	14.6	0.82
Parlier	16.8	19.2	0.87
Reedley	17.0	16.8	1.01
San Joaquin	14.3	17.7	0.81
Sanger	15.4	16.0	0.96
Selma	17.8	18.9	0.94
Entire County	**16.1**	**14.9**	**1.08**

FIGURE 4 FCOG VMT SPREADSHEET TABULATION OUTPUT – 2019 WITH PROJECT SCENARIO

Residential Project Analysis



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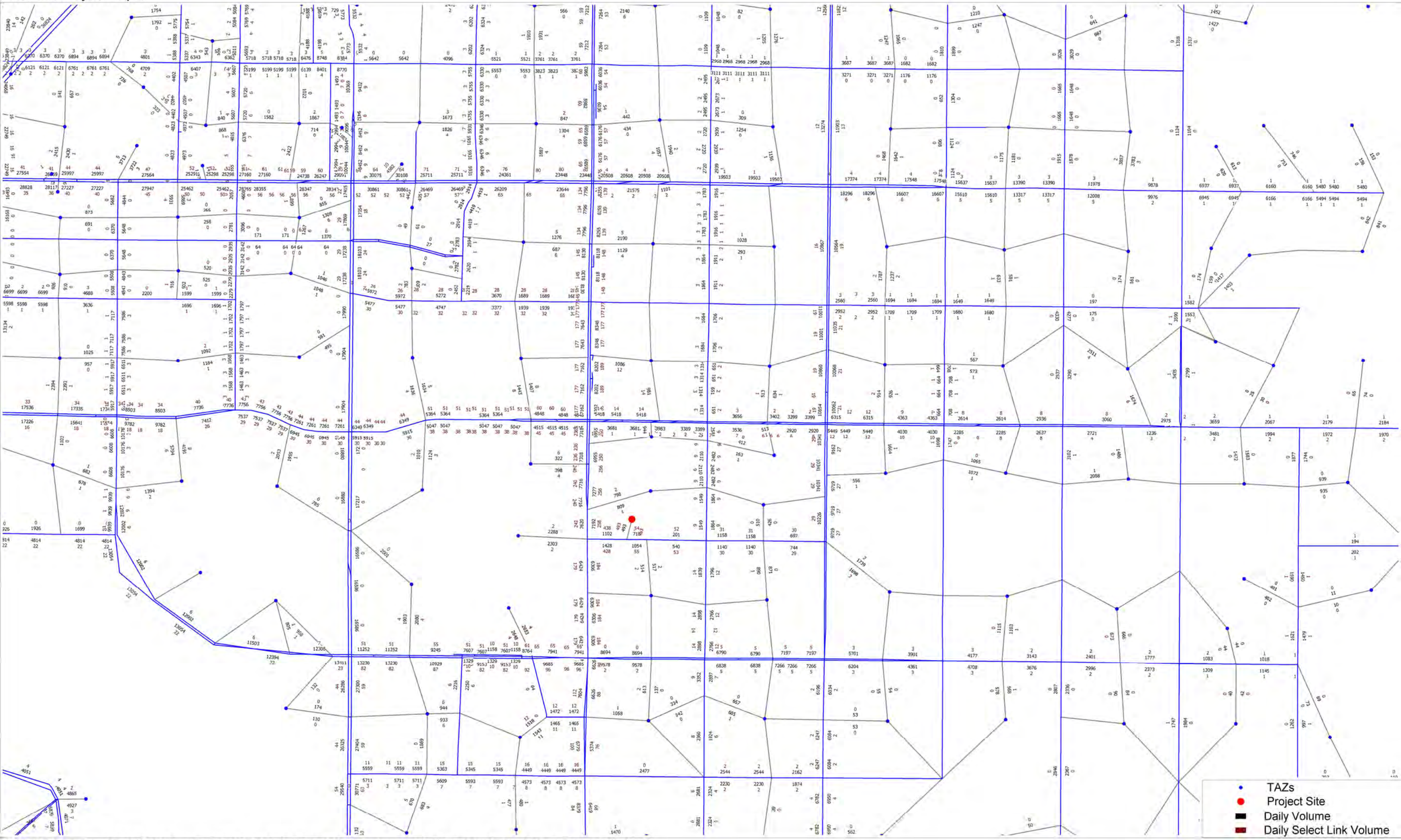
Residential Project Analysis



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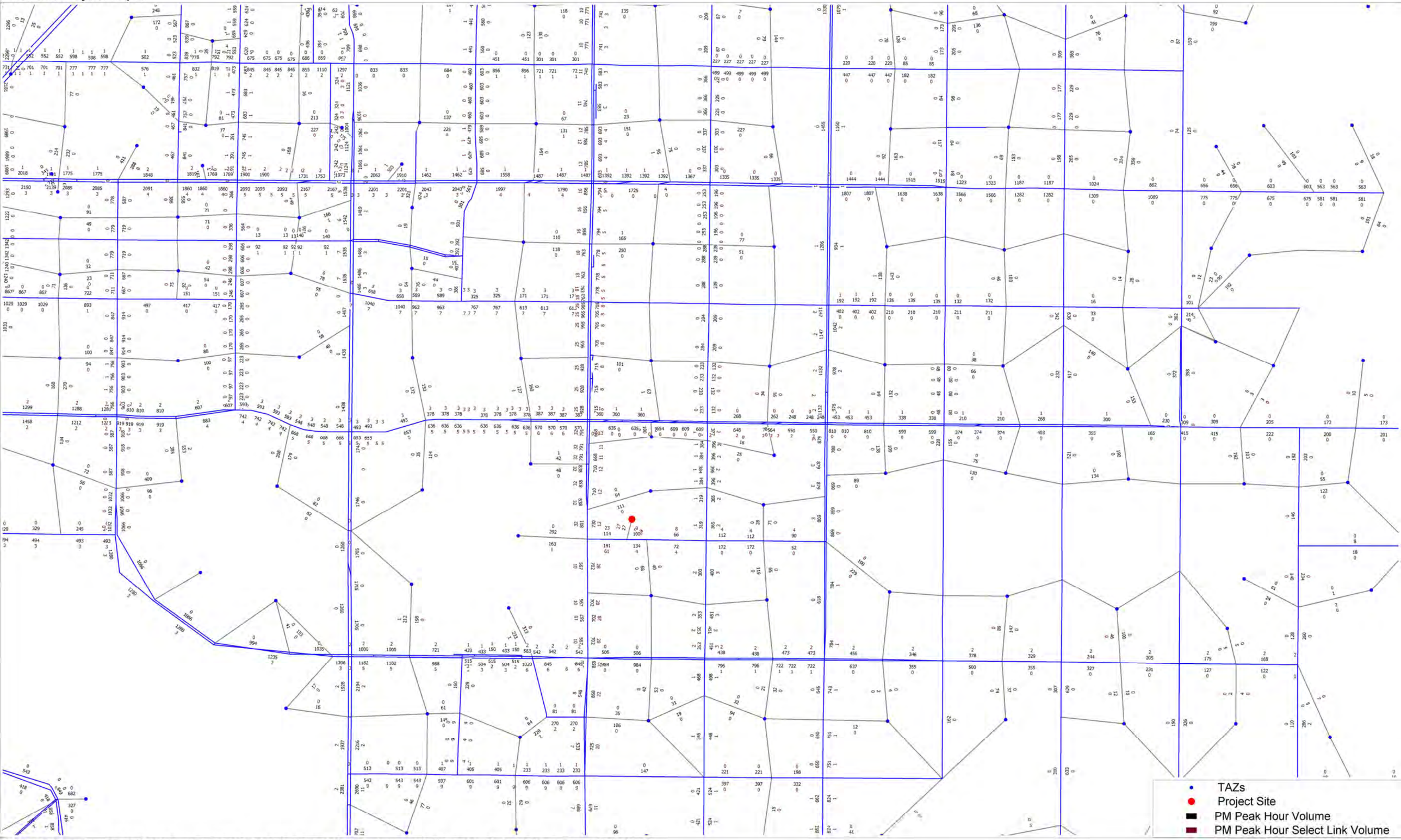
Residential Project Analysis



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SMALL PROJECT ANALYSIS LEVEL ASSESSMENT

NEC North Fowler & East Dakota Multi-Family Residential Project
Fresno, CA

Prepared For:

QK, Inc.
5080 California Avenue, Suite 220
Bakersfield, CA 93309

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 1-1
   - 1.1 Executive Summary 1-1
   - 1.2 Statement of Finding 1-1

2. PROJECT INFORMATION 2-1
   - 2.1 Introduction 2-1
   - 2.2 Project Location 2-1

3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION 3-3

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY 4-1

5. PROJECT-RELATED EMISSIONS 5-1
   - 5.1 Short-Term Emissions 5-1
   - 5.2 Long-Term Emissions 5-1
   - 5.3 Greenhouse Gas Emissions 5-2
   - 5.4 Potential Impact on Sensitive Receptors 5-3
   - 5.5 Potential Impacts to Visibility to Nearby Class 1 Areas 5-3
   - 5.6 Potential Odor Impacts 5-3
   - 5.7 Ambient Air Quality Impacts 5-3
   - 5.8 Toxic Air Contaminant (TAC) Impacts 5-3
   - 5.9 Cumulative Impacts 5-5

6. CONCLUSIONS 6-1

7. REFERENCES 7-1

APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES A-1

APPENDIX B. HEALTH RISK ASSESSMENT MODELING FILES B-1

LIST OF FIGURES

Figure 2-1. Project Location 2-1

LIST OF TABLES

Table 3-1. Small Project Analysis Level in Units for Residential 3-3

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants 4-1

Table 5-1. Project Construction Emissions 5-1

Table 5-2. Total Project Operational Emissions 5-2

Table 5-3. Estimated Annual Greenhouse Gas Emissions 5-2

Table 5-4. Potential Maximum Health Risk Impacts 5-5

1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for multi-family residential community approximately 0.1 miles east of the northeast corner of the intersection of North Fowler Avenue and East Dakota Avenue in Fresno, California. The Project includes the construction of 145 townhomes on 10.05 acres.

This limited air quality assessment uses the San Joaquin Valley Air Pollution Control District's (SJVAPCD) screening tool, Small Project Analysis Level (SPAL) (SJVAPCD 2020). This SPAL assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the SPAL established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this SPAL assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a less than significant air quality impact.

2. PROJECT INFORMATION

2.1 Introduction

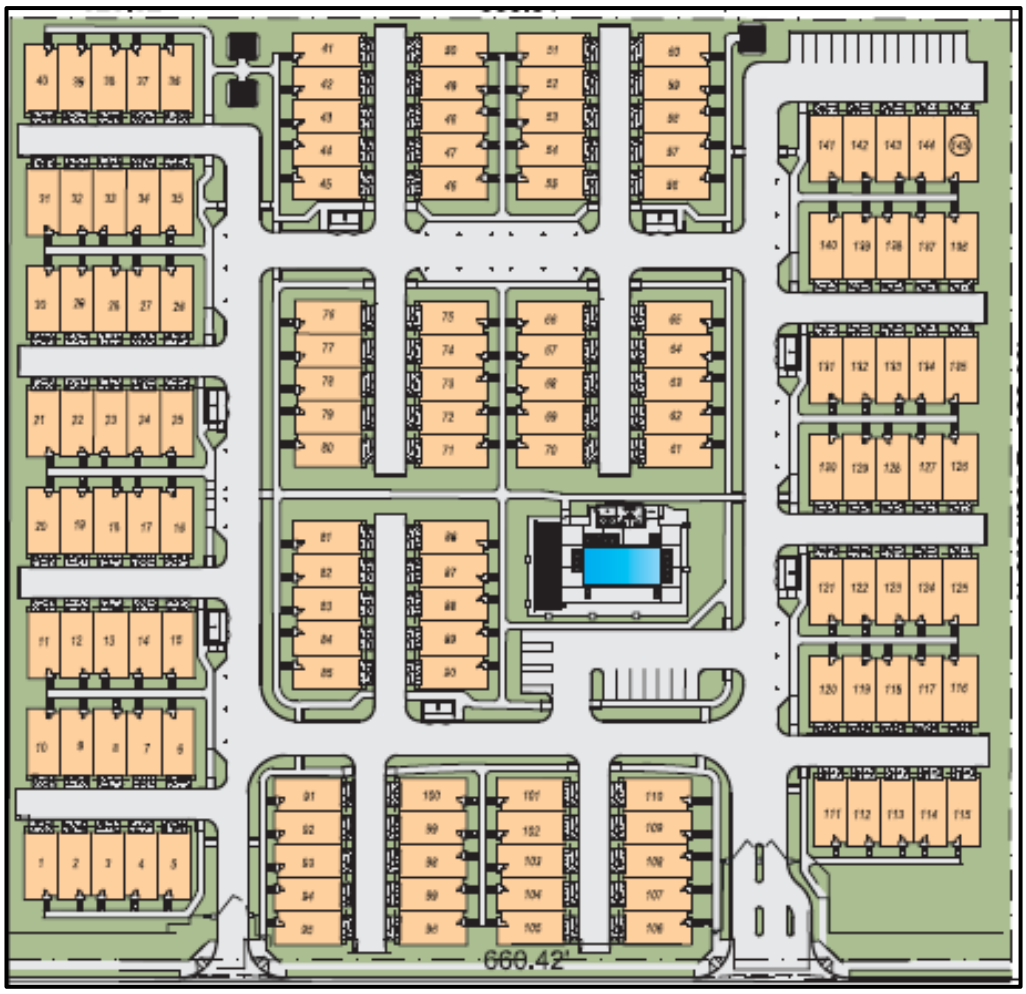
The Project site is located in the City of Fresno on the northeast corner of the intersection of North Fowler Avenue and East Dakota Avenue. The Project includes the construction of 145 townhomes on 10.05 acres. The Project was assessed as if it would be developed in one phase. This assessment examines the projected gross impacts to air quality posed by this Project to the San Joaquin Valley Air Basin to determine whether or not the Project remains below established air quality thresholds of significance.

2.2 Project Location

The Project is located within the City of Fresno, approximately 0.1 miles east of the northeast corner of the intersection of North Fowler Avenue and East Dakota Avenue. **Figure 2-1** depicts the Project location, and **Figure 2-2** depicts the proposed site plan.

Figure 2-1. Project Location

Figure 2-2. Proposed Site Plan



3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION

This assessment was prepared pursuant to the SJVAPCD's GAMAQI (SJVAPCD 2015), the CEQA (Public Resources Code 21000 to 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to GAMAQI, the SJVAPCD "pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds"[1].

The SJVAPCD SPAL process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters has "no possibility of exceeding criteria pollutant emissions thresholds." **Table 3-1** presents the SPAL size parameters for residential projects.

Table 3-1. Small Project Analysis Level in Units for Residential

Land Use Category – Residential	Project Size (dwelling unit)*
Single Family	155
Apartment, Low Rise	224
Apartment, Mid Rise	225
Apartment, High Rise	340
Condominiums/Townhouse	256
Condominiums, High Rise	352
Mobile Home Park	292
Retirement Community	580
Congregate Care Assisted Living	536
Proposed Project – Condominiums/Townhouse	**145**
SPAL Exceeded?	No
*Project size based on SPAL Table 1, as posted on SJVAPCD webpage: http://www.valleyair.org/transportation/CEQA Rules/GAMAQI-SPAL.pdf	

As shown in **Table 3-1**, the proposed Project would not exceed the established SPAL limits for a "Condominiums/Townhouse" residential project. The Project would construct a 145-unit townhomes complex compared to the allowable project size for an "Condominiums/Townhouse" project which is 256 units. Based on the above information, this Project qualifies for a limited air quality analysis applying the SPAL guidance to determine air quality impacts.

[1] SJVAPCD GAMAQI, Section 8.3.4, Page 85.

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan;
- 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;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 4-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 (California Air Pollution Control Officers Association (CAPCOA) 2021). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

5. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI and SPAL guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

5.1 Short-Term Emissions

Table 5-1 shows the construction emission levels using default CalEEMod factors for construction of a 145-unit townhome residential project (see Attachment A) except for the following:

- Project site acres was changed from the default to the actual acreage of the Project site.

Construction emission estimates also included the following SJVAPCD's required measures for all projects:

- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 5-1. Project Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
2022 Construction Emissions	0.30	2.59	2.67	0.005	0.32	0.18
2023 Construction Emissions	1.45	0.73	0.93	0.002	0.07	0.04
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

5.2 Long-Term Emissions

Table 5-2 presents the Project's long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. Most of these emissions impacts are from mobile sources traveling to and from the Project area. The following changes to default values were incorporated during the CalEEMod analysis:

- Fleet mix was changed from the default to match the SJVAPCD's residential fleet mix for year 2023.
- No Fireplaces or Woodstoves

Operational emission estimates also included the following mitigation measures even though the project was less than significant before mitigation:

- Improved Transit Accessibility;
- Improved Destination Accessibility;
- Improved Pedestrian Network; and
- Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).

Table 5-2. Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
Unmitigated						
Operational Emissions	1.10	0.77	5.20	0.01	1.18	0.33
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated						
Operational Emissions	1.09	0.71	4.83	0.01	1.04	0.29
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

As calculated (see **Attachment A**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL screening thresholds.

5.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO_2e) (**see Attachment A**). The proposed Project's operational CO_2e emissions were estimated using CalEEMod. These emissions are summarized in **Table 5-3**.

Table 5-3. Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
2023 Project Operations	1,147.15	1.20	0.06	1,194.46
2005 BAU	1,802.18	1.34	0.19	1,890.78
BAU less Project emissions				36.8%

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2008 Climate Change Scoping Plan supports the 2011 IPPC estimates. The 2008 Climate Change Scoping Plan also indicates that GHG emissions will increase to 596.41 million metric tons of CO_2e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO_2 that would be generated by the Project is so small in relation to the California CO_2 equivalent estimates for 2020 (596 million metric tons CO_2e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 696.32 metric tons CO_2e, which is a 36.8% reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is less than significant.

5.4 Potential Impact on Sensitive Receptors

The proposed Project is located approximately 0.1 miles east of the northeast corner of the intersection of North Fowler Avenue and East Dakota Avenue. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. There are residential receptors bordering the Project site in all directions. The closest schools are Roger S. Oraze Elementary School at 0.26 miles to the southeast, Miramonte Elementary School at 0.37 miles to the northwest and Gettysburg Elementary School at 0.7 miles to the north. The closest daycare facilities are MJ's Infant Care & Preschool at 0.32 miles to the northwest, Little Blue Tots Daycare at 0.64 miles to the south and Brighten Academy Preschool 0.48 miles to the north of the Project. There are no other known schools, hospitals, or nursing homes within a one-mile radius of the Project.

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any sensitive receptors and is *not expected to have any adverse impacts 1on any known sensitive receptor*.

5.5 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Dome Land Wilderness or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

5.6 Potential Odor Impacts

The proposed Project is a residential community located near other residential neighborhoods and commercial land uses. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

5.7 Ambient Air Quality Impacts

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 5-1** and **Table 5-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

5.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows:

- Minimize health risks from new and modified sources of air pollution.
- Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- Avoid unreasonable restrictions on permitting.

The proposed Project would result in emissions of Hazardous Air Pollutants (HAPs) during construction and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required. To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased HAPs. HAP emissions from anticipated on-site construction activities were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for onsite construction equipment. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for each source. The time-of-day variable emissions rates were applied in AERMOD since construction emissions are expected to be limited to specific work hours provided by the project proponent. This scenario places the highest level of activity and impact in the closest proximity to potential receptors to determine if, at the Project's highest potential impact, it would present adverse health risks to nearby receptors. Operational emissions from the townhomes would not generate HAP emissions.

Discrete receptor grids were used over the areas of dense residential neighborhoods surrounding the Project site as well as individual discrete receptors for scattered residences. A total of 2,188 discrete off-site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided, AERMET processed meteorological data sets for the Fresno monitoring station, calendar years 2013 through 2017 was input to AERMOD (SJVAPCD 2018). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility is considered "rural" under the Auer land use classification method (Auer 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT v21081) program in the Hotspots Analysis and Reporting Program Version 2 (HARP 2) (CARB 2021). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute noncancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA). HARP2 site parameters were set for the mandatory minimum pathways

of inhalation, soil ingestion, dermal, and mother's milk for residential receptors and inhalation, soil ingestion, and dermal for worker receptors. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor. A hazard index for acute non-cancer health effects was not computed since DPM does not have a risk exposure level for acute risk.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 2-year exposure for the construction activities.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the maximum exposed individual receptor (MEIR) does not exceed the significance levels of twenty in one million (20E-06) and 1.0, respectively for the proposed Project. The MEIR is identified by receptor location and risk and is provided in **Table 5-4**. The electronic AERMOD and HARP2 output files are provided in Appendix B.

Table 5-4. Potential Maximum Health Risk Impacts

	Value	UTM East	UTM N
Excess Cancer Risk	1.40E-05	261095.19	4074577.08
Chronic Hazard Index	9.62E-03	261095.19	4074577.08

As shown above in **Table 5-4**, the maximum predicted cancer risk for the proposed Project is 1.40E-05. The maximum chronic non-cancer hazard index for the proposed Project is 9.62E-03. Since the MEIR remained below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk was not calculated since there is no acute risk associated with DPM emission; therefore, the proposed Project is considered below the significance level.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

5.9 Cumulative Impacts

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project that provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that

the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be less than significant.

6. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and SPAL guidelines, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

7. REFERENCES

California Environmental Quality Act (CEQA). 2021. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

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APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lennar TTM 6374

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	145.00	Dwelling Unit	10.05	145,000.00	415

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project area: 10.05 Acres Gross

Construction Phase -

Woodstoves - No fireplaces.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Fleet Mix - Updated Fleet Mix per 2023.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	NumberGas	79.75	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	NumberNoFireplace	65.25	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004
tblFleetMix	UBUS	2.9100e-004	4.3000e-003
tblLandUse	LotAcreage	9.06	10.05
tblWoodstoves	NumberCatalytic	10.05	0.00
tblWoodstoves	NumberNoncatalytic	10.05	0.00

2.0 Emissions Summary

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	0.3013	2.5878	2.6668	5.2900e-003	0.3426	0.1231	0.4657	0.1338	0.1151	0.2490	0.0000	465.8893	465.8893	0.0957	7.6400e-003	470.5601
2023	1.4508	0.7275	0.9290	1.7700e-003	0.0404	0.0342	0.0745	0.0108	0.0321	0.0429	0.0000	156.3854	156.3854	0.0296	2.6800e-003	157.9236
Maximum	**1.4508**	**2.5878**	**2.6668**	**5.2900e-003**	**0.3426**	**0.1231**	**0.4657**	**0.1338**	**0.1151**	**0.2490**	**0.0000**	**465.8893**	**465.8893**	**0.0957**	**7.6400e-003**	**470.5601**

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					
2022	0.3013	2.5878	2.6668	5.2900e-003	0.1984	0.1231	0.3215	0.0696	0.1151	0.1847	0.0000	465.8889	465.8889	0.0957	7.6400e-003	470.5597
2023	1.4508	0.7275	0.9290	1.7700e-003	0.0404	0.0342	0.0745	0.0108	0.0321	0.0429	0.0000	156.3853	156.3853	0.0296	2.6800e-003	157.9235
Maximum	**1.4508**	**2.5878**	**2.6668**	**5.2900e-003**	**0.1984**	**0.1231**	**0.3215**	**0.0696**	**0.1151**	**0.1847**	**0.0000**	**465.8889**	**465.8889**	**0.0957**	**7.6400e-003**	**470.5597**

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	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**	**37.65**	**0.00**	**26.69**	**44.41**	**0.00**	**22.01**	**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	**1-1-2022**	**3-31-2022**	1.0057	1.0057
2	**4-1-2022**	**6-30-2022**	0.6113	0.6113
3	**7-1-2022**	**9-30-2022**	0.6180	0.6180
4	**10-1-2022**	**12-31-2022**	0.6195	0.6195
5	**1-1-2023**	**3-31-2023**	0.5546	0.5546
6	**4-1-2023**	**6-30-2023**	1.5128	1.5128
		Highest	1.5128	1.5128

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.7348	0.0124	1.0769	6.0000e-005		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	1.7587	1.7587	1.6900e-003	0.0000	1.8010
Energy	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	195.0041	195.0041	0.0132	3.6600e-003	196.4248
Mobile	0.3472	0.6446	4.0731	0.0111	1.1541	8.1200e-003	1.1622	0.3077	7.5700e-003	0.3152	0.0000	1,046.8291	1,046.8291	0.0786	0.0521	1,064.3246
Waste						0.0000	0.0000		0.0000	0.0000	13.5395	0.0000	13.5395	0.8002	0.0000	33.5435
Water						0.0000	0.0000		0.0000	0.0000	2.9972	6.6585	9.6557	0.3089	7.4000e-003	19.5837
Total	**1.0951**	**0.7681**	**5.1972**	**0.0118**	**1.1541**	**0.0231**	**1.1771**	**0.3077**	**0.0225**	**0.3302**	**16.5367**	**1,250.2505**	**1,266.7872**	**1.2026**	**0.0632**	**1,315.6775**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.7344	0.0123	1.0691	6.0000e-005		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	1.7428	1.7428	1.6700e-003	0.0000	1.7845
Energy	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	195.0041	195.0041	0.0132	3.6600e-003	196.4248
Mobile	0.3397	0.5900	3.7167	9.8100e-003	1.0179	7.2600e-003	1.0251	0.2714	6.7700e-003	0.2781	0.0000	927.2032	927.2032	0.0720	0.0474	943.1253
Waste						0.0000	0.0000		0.0000	0.0000	13.5395	0.0000	13.5395	0.8002	0.0000	33.5435
Water						0.0000	0.0000		0.0000	0.0000	2.9972	6.6585	9.6557	0.3089	7.4000e-003	19.5837
Total	**1.0871**	**0.7134**	**4.8331**	**0.0106**	**1.0179**	**0.0222**	**1.0400**	**0.2714**	**0.0217**	**0.2930**	**16.5367**	**1,130.6086**	**1,147.1453**	**1.1960**	**0.0585**	**1,194.4618**

	ROG	NOx	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	**0.73**	**7.11**	**7.01**	**10.64**	**11.80**	**3.95**	**11.65**	**11.80**	**3.78**	**11.25**	**0.00**	**9.57**	**9.44**	**0.55**	**7.49**	**9.21**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/17/2022	2/25/2022	5	30	
3	Building Construction	Building Construction	2/28/2022	4/21/2023	5	300	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	4/24/2023	5/19/2023	5	20	
5	Architectural Coating	Architectural Coating	5/22/2023	6/16/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 293,625; Residential Outdoor: 97,875; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	104.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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	3.0000e-004	2.1000e-004	2.3300e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5883	0.5883	2.0000e-005	2.0000e-005	0.5941
Total	**3.0000e-004**	**2.1000e-004**	**2.3300e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5883**	**0.5883**	**2.0000e-005**	**2.0000e-005**	**0.5941**

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0383**	**8.0600e-003**	**0.0464**	**0.0197**	**7.4200e-003**	**0.0271**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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	3.0000e-004	2.1000e-004	2.3300e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5883	0.5883	2.0000e-005	2.0000e-005	0.5941
Total	**3.0000e-004**	**2.1000e-004**	**2.3300e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5883**	**0.5883**	**2.0000e-005**	**2.0000e-005**	**0.5941**

3.3 Grading - 2022

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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1381**	**0.0245**	**0.1626**	**0.0548**	**0.0226**	**0.0774**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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	1.0100e-003	6.9000e-004	7.7500e-003	2.0000e-005	2.4000e-003	1.0000e-005	2.4100e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9609	1.9609	6.0000e-005	6.0000e-005	1.9802
Total	**1.0100e-003**	**6.9000e-004**	**7.7500e-003**	**2.0000e-005**	**2.4000e-003**	**1.0000e-005**	**2.4100e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.9609**	**1.9609**	**6.0000e-005**	**6.0000e-005**	**1.9802**

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					0.0538	0.0000	0.0538	0.0214	0.0000	0.0214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0538**	**0.0245**	**0.0784**	**0.0214**	**0.0226**	**0.0439**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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	1.0100e-003	6.9000e-004	7.7500e-003	2.0000e-005	2.4000e-003	1.0000e-005	2.4100e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9609	1.9609	6.0000e-005	6.0000e-005	1.9802
Total	**1.0100e-003**	**6.9000e-004**	**7.7500e-003**	**2.0000e-005**	**2.4000e-003**	**1.0000e-005**	**2.4100e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.9609**	**1.9609**	**6.0000e-005**	**6.0000e-005**	**1.9802**

3.4 Building Construction - 2022

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	0.1877	1.7177	1.8000	2.9600e-003		0.0890	0.0890		0.0837	0.0837	0.0000	254.8978	254.8978	0.0611	0.0000	256.4244
Total	**0.1877**	**1.7177**	**1.8000**	**2.9600e-003**		**0.0890**	**0.0890**		**0.0837**	**0.0837**	**0.0000**	**254.8978**	**254.8978**	**0.0611**	**0.0000**	**256.4244**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	3.6300e-003	0.0949	0.0269	3.7000e-004	0.0117	1.0200e-003	0.0127	3.3700e-003	9.8000e-004	4.3500e-003	0.0000	35.1453	35.1453	2.7000e-004	5.3000e-003	36.7300
Worker	0.0385	0.0262	0.2957	8.1000e-004	0.0915	4.7000e-004	0.0919	0.0243	4.3000e-004	0.0247	0.0000	74.7755	74.7755	2.4400e-003	2.2700e-003	75.5131
Total	**0.0421**	**0.1211**	**0.3226**	**1.1800e-003**	**0.1031**	**1.4900e-003**	**0.1046**	**0.0277**	**1.4100e-003**	**0.0291**	**0.0000**	**109.9208**	**109.9208**	**2.7100e-003**	**7.5700e-003**	**112.2432**

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	0.1877	1.7177	1.8000	2.9600e-003		0.0890	0.0890		0.0837	0.0837	0.0000	254.8975	254.8975	0.0611	0.0000	256.4241
Total	**0.1877**	**1.7177**	**1.8000**	**2.9600e-003**		**0.0890**	**0.0890**		**0.0837**	**0.0837**	**0.0000**	**254.8975**	**254.8975**	**0.0611**	**0.0000**	**256.4241**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	3.6300e-003	0.0949	0.0269	3.7000e-004	0.0117	1.0200e-003	0.0127	3.3700e-003	9.8000e-004	4.3500e-003	0.0000	35.1453	35.1453	2.7000e-004	5.3000e-003	36.7300
Worker	0.0385	0.0262	0.2957	8.1000e-004	0.0915	4.7000e-004	0.0919	0.0243	4.3000e-004	0.0247	0.0000	74.7755	74.7755	2.4400e-003	2.2700e-003	75.5131
Total	**0.0421**	**0.1211**	**0.3226**	**1.1800e-003**	**0.1031**	**1.4900e-003**	**0.1046**	**0.0277**	**1.4100e-003**	**0.0291**	**0.0000**	**109.9208**	**109.9208**	**2.7100e-003**	**7.5700e-003**	**112.2432**

3.4 Building Construction - 2023

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	0.0629	0.5754	0.6498	1.0800e-003		0.0280	0.0280		0.0263	0.0263	0.0000	92.7219	92.7219	0.0221	0.0000	93.2733
Total	**0.0629**	**0.5754**	**0.6498**	**1.0800e-003**		**0.0280**	**0.0280**		**0.0263**	**0.0263**	**0.0000**	**92.7219**	**92.7219**	**0.0221**	**0.0000**	**93.2733**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	6.9000e-004	0.0281	8.4300e-003	1.3000e-004	4.2400e-003	1.8000e-004	4.4200e-003	1.2300e-003	1.7000e-004	1.4000e-003	0.0000	12.3089	12.3089	7.0000e-005	1.8500e-003	12.8626
Worker	0.0129	8.3400e-003	0.0984	2.9000e-004	0.0333	1.6000e-004	0.0334	8.8400e-003	1.5000e-004	8.9900e-003	0.0000	26.4828	26.4828	8.0000e-004	7.6000e-004	26.7287
Total	**0.0136**	**0.0365**	**0.1068**	**4.2000e-004**	**0.0375**	**3.4000e-004**	**0.0378**	**0.0101**	**3.2000e-004**	**0.0104**	**0.0000**	**38.7916**	**38.7916**	**8.7000e-004**	**2.6100e-003**	**39.5913**

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	0.0629	0.5754	0.6498	1.0800e-003		0.0280	0.0280		0.0263	0.0263	0.0000	92.7218	92.7218	0.0221	0.0000	93.2732
Total	**0.0629**	**0.5754**	**0.6498**	**1.0800e-003**		**0.0280**	**0.0280**		**0.0263**	**0.0263**	**0.0000**	**92.7218**	**92.7218**	**0.0221**	**0.0000**	**93.2732**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	6.9000e-004	0.0281	8.4300e-003	1.3000e-004	4.2400e-003	1.8000e-004	4.4200e-003	1.2300e-003	1.7000e-004	1.4000e-003	0.0000	12.3089	12.3089	7.0000e-005	1.8500e-003	12.8626
Worker	0.0129	8.3400e-003	0.0984	2.9000e-004	0.0333	1.6000e-004	0.0334	8.8400e-003	1.5000e-004	8.9900e-003	0.0000	26.4828	26.4828	8.0000e-004	7.6000e-004	26.7287
Total	**0.0136**	**0.0365**	**0.1068**	**4.2000e-004**	**0.0375**	**3.4000e-004**	**0.0378**	**0.0101**	**3.2000e-004**	**0.0104**	**0.0000**	**38.7916**	**38.7916**	**8.7000e-004**	**2.6100e-003**	**39.5913**

3.5 Paving - 2023

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

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	4.6000e-004	3.0000e-004	3.5500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9549	0.9549	3.0000e-005	3.0000e-005	0.9638
Total	**4.6000e-004**	**3.0000e-004**	**3.5500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9549**	**0.9549**	**3.0000e-005**	**3.0000e-005**	**0.9638**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

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	4.6000e-004	3.0000e-004	3.5500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9549	0.9549	3.0000e-005	3.0000e-005	0.9638
Total	**4.6000e-004**	**3.0000e-004**	**3.5500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9549**	**0.9549**	**3.0000e-005**	**3.0000e-005**	**0.9638**

3.6 Architectural Coating - 2023

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	1.3610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.3629**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	6.5000e-004	4.2000e-004	4.9700e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.3369	1.3369	4.0000e-005	4.0000e-005	1.3493
Total	**6.5000e-004**	**4.2000e-004**	**4.9700e-003**	**1.0000e-005**	**1.6800e-003**	**1.0000e-005**	**1.6900e-003**	**4.5000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3369**	**1.3369**	**4.0000e-005**	**4.0000e-005**	**1.3493**

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	1.3610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.3629**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	6.5000e-004	4.2000e-004	4.9700e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.3369	1.3369	4.0000e-005	4.0000e-005	1.3493
Total	**6.5000e-004**	**4.2000e-004**	**4.9700e-003**	**1.0000e-005**	**1.6800e-003**	**1.0000e-005**	**1.6900e-003**	**4.5000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3369**	**1.3369**	**4.0000e-005**	**4.0000e-005**	**1.3493**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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	0.3397	0.5900	3.7167	9.8100e-003	1.0179	7.2600e-003	1.0251	0.2714	6.7700e-003	0.2781	0.0000	927.2032	927.2032	0.0720	0.0474	943.1253
Unmitigated	0.3472	0.6446	4.0731	0.0111	1.1541	8.1200e-003	1.1622	0.3077	7.5700e-003	0.3152	0.0000	1,046.8291	1,046.8291	0.0786	0.0521	1,064.3246

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,061.40	1,180.30	910.60	3,096,200	2,730,849
Total	1,061.40	1,180.30	910.60	3,096,200	2,730,849

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
Condo/Townhouse	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	66.3503	66.3503	0.0107	1.3000e-003	67.0064
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	66.3503	66.3503	0.0107	1.3000e-003	67.0064
NaturalGas Mitigated	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
NaturalGas Unmitigated	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184

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					
Condo/Townhouse	2.41088e+006	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
Total		**0.0130**	**0.1111**	**0.0473**	**7.1000e-004**		**8.9800e-003**	**8.9800e-003**		**8.9800e-003**	**8.9800e-003**	**0.0000**	**128.6538**	**128.6538**	**2.4700e-003**	**2.3600e-003**	**129.4184**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Condo/Townhouse	2.41088e+006	0.0130	0.1111	0.0473	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003	0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
Total		**0.0130**	**0.1111**	**0.0473**	**7.1000e-004**		**8.9800e-003**	**8.9800e-003**		**8.9800e-003**	**8.9800e-003**	**0.0000**	**128.6538**	**128.6538**	**2.4700e-003**	**2.3600e-003**	**129.4184**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	717116	66.3503	0.0107	1.3000e-003	67.0064
Total		**66.3503**	**0.0107**	**1.3000e-003**	**67.0064**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	717116	66.3503	0.0107	1.3000e-003	67.0064
Total		**66.3503**	**0.0107**	**1.3000e-003**	**67.0064**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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	0.7344	0.0123	1.0691	6.0000e-005		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	1.7428	1.7428	1.6700e-003	0.0000	1.7845
Unmitigated	0.7348	0.0124	1.0769	6.0000e-005		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	1.7587	1.7587	1.6900e-003	0.0000	1.8010

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	0.1361					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0324	0.0124	1.0769	6.0000e-005		5.9600e-003	5.9600e-003		5.9600e-003	5.9600e-003	0.0000	1.7587	1.7587	1.6900e-003	0.0000	1.8010
Total	**0.7348**	**0.0124**	**1.0769**	**6.0000e-005**		**5.9600e-003**	**5.9600e-003**		**5.9600e-003**	**5.9600e-003**	**0.0000**	**1.7587**	**1.7587**	**1.6900e-003**	**0.0000**	**1.8010**

Lennar TTM 6374 - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1361					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0320	0.0123	1.0691	6.0000e-005		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	1.7428	1.7428	1.6700e-003	0.0000	1.7845
Total	**0.7344**	**0.0123**	**1.0691**	**6.0000e-005**		**5.9100e-003**	**5.9100e-003**		**5.9100e-003**	**5.9100e-003**	**0.0000**	**1.7428**	**1.7428**	**1.6700e-003**	**0.0000**	**1.7845**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6557	0.3089	7.4000e-003	19.5837
Unmitigated	9.6557	0.3089	7.4000e-003	19.5837

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.44733 / 5.95593	9.6557	0.3089	7.4000e-003	19.5837
Total		**9.6557**	**0.3089**	**7.4000e-003**	**19.5837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.44733 / 5.95593	9.6557	0.3089	7.4000e-003	19.5837
Total		**9.6557**	**0.3089**	**7.4000e-003**	**19.5837**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.5395	0.8002	0.0000	33.5435
Unmitigated	13.5395	0.8002	0.0000	33.5435

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	66.7	13.5395	0.8002	0.0000	33.5435
Total		**13.5395**	**0.8002**	**0.0000**	**33.5435**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	66.7	13.5395	0.8002	0.0000	33.5435
Total		**13.5395**	**0.8002**	**0.0000**	**33.5435**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Lennar TTM 6374 - BAU

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	145.00	Dwelling Unit	10.05	145,000.00	415

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project: 10.05 Acres

Construction Phase - Operational run only.

Trips and VMT - Operational run only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	5/18/2005	3/24/2004
tblLandUse	LotAcreage	9.06	10.05
tblTripsAndVMT	VendorTripNumber	16.00	0.00
tblTripsAndVMT	WorkerTripNumber	104.00	0.00
tblWoodstoves	NumberCatalytic	10.05	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	NumberNoncatalytic	10.05	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					
2004											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**

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					
2004											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**

Lennar TTM 6374 - BAU - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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											0.0000	64.5738	64.5738	4.0200e-003	1.1500e-003	65.0174
Energy											0.0000	195.0041	195.0041	0.0132	3.6600e-003	196.4248
Mobile											0.0000	1,519.4047	1,519.4047	0.2101	0.1730	1,576.2141
Waste											13.5395	0.0000	13.5395	0.8002	0.0000	33.5435
Water											2.9972	6.6585	9.6557	0.3089	7.4000e-003	19.5837
Total											**16.5367**	**1,785.6411**	**1,802.1778**	**1.3364**	**0.1852**	**1,890.7835**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	64.5738	64.5738	4.0200e-003	1.1500e-003	65.0174
Energy											0.0000	195.0041	195.0041	0.0132	3.6600e-003	196.4248
Mobile											0.0000	1,519.4047	1,519.4047	0.2101	0.1730	1,576.2141
Waste											13.5395	0.0000	13.5395	0.8002	0.0000	33.5435
Water											2.9972	6.6585	9.6557	0.3089	7.4000e-003	19.5837
Total											**16.5367**	**1,785.6411**	**1,802.1778**	**1.3364**	**0.1852**	**1,890.7835**

	ROG	NOx	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	Building Construction	Building Construction	3/25/2004	3/24/2004	5	0	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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

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
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2004

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**

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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2004

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**

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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	1,519.4047	1,519.4047	0.2101	0.1730	1,576.2141
Unmitigated											0.0000	1,519.4047	1,519.4047	0.2101	0.1730	1,576.2141

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,061.40	1,180.30	910.60	3,096,200	3,096,200
Total	1,061.40	1,180.30	910.60	3,096,200	3,096,200

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
Condo/Townhouse	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.477591	0.081668	0.164575	0.168109	0.036290	0.006715	0.016687	0.017024	0.000893	0.000307	0.021194	0.000966	0.007982

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	66.3503	66.3503	0.0107	1.3000e-003	67.0064
Electricity Unmitigated											0.0000	66.3503	66.3503	0.0107	1.3000e-003	67.0064
NaturalGas Mitigated											0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
NaturalGas Unmitigated											0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Condo/Townhouse	2.41088e+006											0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
Total												**0.0000**	**128.6538**	**128.6538**	**2.4700e-003**	**2.3600e-003**	**129.4184**

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					
Condo/Townhouse	2.41088e+006											0.0000	128.6538	128.6538	2.4700e-003	2.3600e-003	129.4184
Total												**0.0000**	**128.6538**	**128.6538**	**2.4700e-003**	**2.3600e-003**	**129.4184**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	717116	66.3503	0.0107	1.3000e-003	67.0064
Total		**66.3503**	**0.0107**	**1.3000e-003**	**67.0064**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	717116	66.3503	0.0107	1.3000e-003	67.0064
Total		**66.3503**	**0.0107**	**1.3000e-003**	**67.0064**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive 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											0.0000	64.5738	64.5738	4.0200e-003	1.1500e-003	65.0174
Unmitigated											0.0000	64.5738	64.5738	4.0200e-003	1.1500e-003	65.0174

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	62.8151	62.8151	1.2000e-003	1.1500e-003	63.1884
Landscaping											0.0000	1.7587	1.7587	2.8200e-003	0.0000	1.8291
Total											**0.0000**	**64.5738**	**64.5738**	**4.0200e-003**	**1.1500e-003**	**65.0174**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	62.8151	62.8151	1.2000e-003	1.1500e-003	63.1884
Landscaping											0.0000	1.7587	1.7587	2.8200e-003	0.0000	1.8291
Total											**0.0000**	**64.5738**	**64.5738**	**4.0200e-003**	**1.1500e-003**	**65.0174**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6557	0.3089	7.4000e-003	19.5837
Unmitigated	9.6557	0.3089	7.4000e-003	19.5837

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.44733 / 5.95593	9.6557	0.3089	7.4000e-003	19.5837
Total		**9.6557**	**0.3089**	**7.4000e-003**	**19.5837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.44733 / 5.95593	9.6557	0.3089	7.4000e-003	19.5837
Total		**9.6557**	**0.3089**	**7.4000e-003**	**19.5837**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.5395	0.8002	0.0000	33.5435
Unmitigated	13.5395	0.8002	0.0000	33.5435

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	66.7	13.5395	0.8002	0.0000	33.5435
Total		**13.5395**	**0.8002**	**0.0000**	**33.5435**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	66.7	13.5395	0.8002	0.0000	33.5435
Total		**13.5395**	**0.8002**	**0.0000**	**33.5435**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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