APPENDIX E – TRAFFIC IMPACT ANALYSIS

COACHILLIN' INDUSTRIAL PARK TRAFFIC IMPACT ANALYSIS

City of Desert Hot Springs

December 3, 2021

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

COACHILLIN' INDUSTRIAL PARK TRAFFIC IMPACT ANALYSIS

City of Desert Hot Springs

December 3, 2021

prepared by

Tom Huang, TE
Giancarlo Ganddini, TE, PTP

GANDDINI GROUP, INC.
555 Parkcenter Drive, Suite 225
Santa Ana, California 92705
714.795.3100 | ganddini.com

Project No. 19-0174

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1. INTRODUCTION 1
Purpose and Objectives 1
Project Description 1
Study Area 1
Analysis Scenarios 2

2. METHODOLOGY 5
Intersection Delay Methodology 5
Performance Standards 5
Thresholds of Significance 6

3. EXISTING CONDITIONS 7
Existing Roadway System 7
General Plan Context 7
Transit Service 7
Bicycle Facilities 7
Existing Roadway Volumes 7
Existing Level of Service 8
Existing Traffic Signal Warrant Analysis 8

4. PROJECT TRIP FORECASTS 18
Project Trip Generation 18
Project Trip Distribution and Assignment 19
Project Design Features 20

5. FUTURE VOLUME FORECASTS 37
Cumulative Trips 37
Ambient Growth Rate 37
Other Development 37
Analysis Scenario Volume Forecasts 37
Existing Plus Project Without Amphitheater Event 37
Existing Plus Project With Amphitheater Event 37
Opening Year (2023) Without Project 37
Opening Year (2023) With Project Without Amphitheater Event 38
Opening Year (2023) With Project With Amphitheater Event 38
Future Traffic Signal Warrant Analysis 38
Existing Plus Project Without Amphitheater Event 38

6. FUTURE OPERATIONAL ANALYSIS 65
Existing Plus Project Without Amphitheater Event 65
Existing Plus Project With Amphitheater Event 66
Opening Year (2023) Without Project 67
Opening Year (2023) With Project Without Amphitheater Event 67
Opening Year (2023) With Project With Amphitheater Event 69

7. CONCLUSIONS 79
Mitigation Measures 79
Project Fair Share Contribution 81
Site Access 81

Trip and Improvement Comparison Between Approved and Proposed Specific Plan 82
General Recommendations 83

APPENDICES

Appendix A Glossary

Appendix B Scoping Agreement

Appendix C Volume Count Worksheets

Appendix D Level of Service Worksheets

Appendix E Traffic Signal Warrant Analysis

LIST OF TABLES

Table 1. Existing Levels of Service 9
Table 2. Project Trip Generation 22
Table 3. Other Development Trip Generation 39
Table 4. Existing Plus Project Without Amphitheater Event Intersection Level of Service 70
Table 5. Existing Plus Project With Amphitheater Event Intersection Levels of Service 72
Table 6. Opening Year (2023) Without Project Intersection Level of Service 74
Table 7. Opening Year (2023) With Project Without Amphitheater Event Intersection Level of Service 75
Table 8. Opening Year (2023) With Project With Amphitheater Event Intersection Level of Service 77
Table 9. Project Fair Share Intersection Traffic Contribution 84
Table 10. Project Trip Generation Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan 85
Table 11. Intersection Improvement Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan 86

LIST OF FIGURES

Figure 1. Project Location Map 3
Figure 2. Site Plan 4
Figure 3. Existing Lane Geometry and Intersection Traffic Controls 10
Figure 4. City of Desert Hot Springs General Plan Circulation Element 11
Figure 5. City of Desert Hot Springs General Plan Roadway Cross-Sections 12
Figure 6. Existing Transit Routes 13
Figure 7. City of Desert Hot Springs General Plan Bike Routes 14
Figure 8. Existing Average Daily Traffic Volumes 15
Figure 9. Existing AM Peak Hour Intersection Turning Movement Volumes 16
Figure 10. Existing PM Peak Hour Intersection Turning Movement Volumes 17
Figure 11. Project Industrial Outbound Trip Distribution 23
Figure 12. Project Industrial Inbound Trip Distribution 24
Figure 13. Project Hotel (Parcel 30) Outbound Trip Distribution 25
Figure 14. Project Hotel (Parcel 30) Inbound Trip Distribution 26
Figure 15. Project Amphitheater Event (Parcel 31) Outbound Trip Distribution 27
Figure 16. Project Amphitheater Event (Parcel 31) Inbound Trip Distribution 28
Figure 17. Project Without Amphitheater Event Average Daily Traffic Volumes 29
Figure 18. Project Without Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 30
Figure 19. Project Without Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 31
Figure 20. Project Without Amphitheater Event aturday Mid-Day Peak Hour Intersection Turning Movement Volumes 32
Figure 21. Project With Amphitheater Event Average Daily Traffic Volumes 33
Figure 22. Project With Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 34
Figure 23. Project With Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 35
Figure 24. Project With Amphitheater Event aturday Mid-Day Peak Hour Intersection Turning Movement Volumes 36
Figure 25. Other Development Average Daily Traffic Volumes 41
Figure 26. Other Development Weekday AM Peak Hour Intersection Turning Movement Volumes 42
Figure 27. Other Development Weekday PM Peak Hour Intersection Turning Movement Volumes 43
Figure 28. Other Development Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 44

Figure 29. Existing Plus Project Without Amphitheater Event Average Daily Traffic Volumes 45
Figure 30. Existing Plus Project Without Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 46
Figure 31. Existing Plus Project Without Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 47
Figure 32. Existing Plus Project Without Amphitheater Event Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 48
Figure 33. Existing Plus Project With Amphitheater Event Average Daily Traffic Volumes 49
Figure 34. Existing Plus Project With Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 50
Figure 35. Existing Plus Project With Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 51
Figure 36. Existing Plus Project With Amphitheater Event Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 52
Figure 37. Opening Year (2023) Without Project Average Daily Traffic Volumes 53
Figure 38. Opening Year (2023) Without Project Weekday AM Peak Hour Intersection Turning Movement Volumes 54
Figure 39. Opening Year (2023) Without Project Weekday PM Peak Hour Intersection Turning Movement Volumes 55
Figure 40. Opening Year (2023) Without Project Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 56
Figure 41. Opening Year (2023) With Project Without Amphitheater Event Average Daily Traffic Volumes 57
Figure 42. Opening Year (2023) With Project Without Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 58
Figure 43. Opening Year (2023) With Project Without Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 59
Figure 44. Opening Year (2023) With Project Without Amphitheater Event Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 60
Figure 45. Opening Year (2023) With Project With Amphitheater Event Average Daily Traffic Volumes 61
Figure 46. Opening Year (2023) With Project With Amphitheater Event Weekday AM Peak Hour Intersection Turning Movement Volumes 62
Figure 47. Opening Year (2023) With Project With Amphitheater Event Weekday PM Peak Hour Intersection Turning Movement Volumes 63
Figure 48. Opening Year (2023) With Project With Amphitheater Event Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes 64
Figure 49. Circulation Recommendations 89

EXECUTIVE SUMMARY

The purpose of this Traffic Impact Analysis is to provide an assessment of traffic operations resulting from development of the proposed Coachillin' Industrial Park project and to identify measures necessary to mitigate potentially significant traffic impacts. This report analyzes traffic impacts for the anticipated project opening year in Year 2023 traffic conditions.

Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with terms related to transportation engineering.

PROJECT DESCRIPTION

The project site is located east of Indian Canyon Drive between 18th Avenue and 19th Avenue in the City of Desert Hot Springs. The Coachillin' Industrial Park was approved in 2017. The approved Coachillin' Industrial Park consists of developing the currently vacant project site with approximately 2,800,000 square feet of building envelope grow sites for cannabis cultivation, processing, and distribution uses. The approved industrial park project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day.

For the currently proposed Specific Plan Amendment, submitted to the City in 2021, the applicant is proposing to modify the allowed land uses for a small portion of the previously-approved Coachillin' Industrial Park Specific Plan within Parcel 30, Parcel 31, and Parcel 25. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater ("project"). Per the applicant, the amphitheater would hold a maximum of four events per month. An unmanned Southern California Edison (SCE) substation was analyzed for Parcel 25 in the Coachillin' Industrial Park Specific Plan; however, SCE determined that Parcel 25 is no longer needed for a substation. Parcel 25 is to be modified to a 420-space parking lot with solar covered parking. The proposed changes to the approved 2017 specific plan are summarized in the table below:

Approved 2017 Specific Plan	Proposed 2021 Specific Plan
2,800,000 Square Foot Industrial Park (Cannabis)	2,800,000 Square Foot Industrial Park (Cannabis) 175-Room Hotel in Parcel 30 5,000-Seat Amphitheater in Parcel 31 420-space parking lot in Parcel 25

The primary access for the project site is through a signalized project driveway on Indian Canyon Drive with additional two stop-controlled right-in/left-in/right-out only access points to Indian Canyon Drive at 18th Avenue and 19th Avenue. Parcel 30 and Parcel 31 will each have a right-in/left-in/right-out only access point on Indian Canyon Drive.

The proposed project is anticipated to be constructed and fully operational by year 2023.

EXISTING CONDITIONS

The study intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 1):

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/19th Avenue – #6 (AM peak hour)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)

A traffic signal appears to currently be warranted at the following study intersections based upon the California Manual on Uniform Traffic Control Devices (2014) for Existing conditions:

- Indian Canyon Drive/Pierson Boulevard – #1
- Indian Canyon Drive/Dillon Road – #2
- Little Morongo Road/Dillon Road – #14

PROJECT TRIPS

The worst case scenario for the proposed project with amphitheater event is forecast to generate a total of approximately 7,419 weekday daily trips with 6,088 Saturday daily trips, including 333 weekday AM peak hour trips, 1,448 weekday PM peak hour trips and 1,440 Saturday mid-day peak hour trips. Without amphitheater event during typical conditions, the proposed project is forecast to generate a total of approximately 4,919 weekday daily trips with 3,588 Saturday daily trips, including 333 weekday AM peak hour trips, 448 weekday PM peak hour trips and 375 Saturday mid-day peak hour trips.

FORECAST OPERATIONS

Existing Plus Project Without Amphitheater Event Conditions: The study intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project Without Amphitheater Event traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 4):

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/Project Driveway – #5 (AM & PM peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM & PM peak hours)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)

Existing Plus Project With Amphitheater Event Conditions: The study intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project With Amphitheater Event traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 5):

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)
- Project Driveway/19th Avenue – #15 (PM peak hour)

Opening Year (2023) Without Project Conditions: The study intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year (2023) Without Project traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 6):

- Indian Canyon Drive/Pierson Boulevard – #1 (AM & PM peak hours)
- Indian Canyon Drive/Dillon Road – #2 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)

Opening Year (2023) With Project Without Amphitheater Event Conditions: The study intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year (2023) With Project Without Amphitheater Event traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 7):

- Indian Canyon Drive/Pierson Boulevard – #1 (AM & PM peak hours)
- Indian Canyon Drive/Dillon Road – #2 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)

Opening Year (2023) With Project With Amphitheater Event Conditions: The study intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year (2023) With Project With Amphitheater Event traffic conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (see Table 8):

- Indian Canyon Drive/Pierson Boulevard – #1 (AM & PM peak hours)
- Indian Canyon Drive/Dillon Road – #2 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)
- Project Driveway/19th Avenue – #15 (PM peak hour)

MITIGATION MEASURES

The following off-site mitigation measures are recommended to address the Level of Service deficiency, for Existing Plus Project conditions, without and with Amphitheater Event, with the project contributing its fair share percentages to these off-site improvements [Intersections #2 and #14]:

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)

The following project-related improvements are needed for Existing Plus Project conditions without and with Amphitheater Event, to be provided by the project at these on-site locations [Intersections #3, #4, #5, #6, #15, #16 and #17]:

- Indian Canyon Drive/18th Avenue – #3
  - Install westbound stop sign
  - Provide northbound right turn lane
  - Provide southbound left turn lane
  - Restrict westbound left turn and provide westbound right turn lane

- Project Driveway/18th Avenue – #4
  - Install northbound stop sign
  - Provide northbound left/right turn lane

- Provide eastbound through/right lane
- Provide westbound left/through lane

- Indian Canyon Drive/Project Driveway – #5
  - Install traffic signal (signal warrant currently satisfied under Existing Plus Project Without Amphitheater Event conditions)
  - Provide southbound left turn lane
  - Provide westbound left/right turn lane

- Indian Canyon Drive/19th Avenue – #6
  - Install westbound stop sign
  - Provide southbound left turn lane
  - Restrict eastbound and westbound left turn and provide westbound right turn lane

- Project Driveway/19th Avenue – #15
  - Install southbound stop sign
  - Provide southbound left/right turn lane
  - Provide eastbound left/through lane
  - Provide westbound through/right lane

- Indian Canyon Drive/Parcel 30 Driveway – #16
  - Install westbound stop sign
  - Provide westbound right turn lane

- Indian Canyon Drive/Parcel 31 Driveway – #17
  - Install westbound stop sign
  - Provide westbound right turn lane

The following off-site improvements are needed to mitigate the deficient intersections for Opening Year (2023) With Project conditions, without and without Amphitheater Event, with the project contributing its fair share percentages to these off-site improvements [Intersections #1, #2, #6 and #14]:

- Indian Canyon Drive/Pierson Boulevard – #1
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide two westbound left turn lanes
  - Provide northbound right-turn overlap phasing

- Indian Canyon Drive/19th Avenue – #6
  - Provide a second northbound through lane
  - Provide a second southbound through lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide southbound right turn lane with overlap phasing
  - Provide a second eastbound left turn lane
  - Provide westbound right turn lane with overlap phasing

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for conditions with Amphitheater Event, to be implemented by the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #17

This traffic study is a high-level planning document that recommended manual traffic control at the parking lot entrances be implemented by the venue management during amphitheater events. A more detailed traffic circulation control plan should be provided by the applicant and venue management as another submittal separately from this high-level traffic study. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17].

Since this is a degradation of traffic level of service for the already impacted intersections during the Existing conditions, the project applicant should pay its fair share of fees to an applicable program for the required mitigations. Some of the intersections currently satisfy the traffic signal warrant based on Existing conditions.

The project's fair share percentages of identified impacted intersections are approximately 0.7% to 9.0% at the off-site study intersection locations. The fair share calculations are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

Comparison to 2017 Traffic Study

The recommended off-site intersection mitigation measures and project-related improvements for this updated 2021 traffic study are mostly consistent with the previously approved 2017 traffic study, with some additional off-site intersection improvements and some additional project access design features for the proposed hotel in Parcel 30 and the proposed amphitheater in Parcel 31. Manual traffic control is recommended be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the three intersections, for conditions with Amphitheater Event, to be implemented by the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17]. Table 11 summarizes the intersection improvement differences between the previously approved 2017 specific plan and this proposed 2021 specific plan.

1. INTRODUCTION

This section describes the purpose of this traffic impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

PURPOSE AND OBJECTIVES

The purpose of this traffic impact analysis is to provide an assessment of traffic operations resulting from development of the proposed Coachillin' Industrial Park project and to identify measures necessary to mitigate potentially significant traffic impacts. This report analyzes traffic impacts for the anticipated project opening year in 2023.

Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary of terms is provided in Appendix A to assist the reader with terms related to transportation engineering.

PROJECT DESCRIPTION

The project site is located east of Indian Canyon Drive between 18th Avenue and 19th Avenue in the City of Desert Hot Springs. The Coachillin' Industrial Park was approved in 2017. The approved Coachillin' Industrial Park consists of developing the currently vacant project site with approximately 2,800,000 square feet of building envelope grow sites for cannabis cultivation, processing, and distribution uses. The approved industrial park project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day.

For the currently proposed Specific Plan Amendment, submitted to the City in 2021, the applicant is proposing to modify the allowed land uses for a small portion of the previously-approved Coachillin' Industrial Park Specific Plan within Parcel 30, Parcel 31, and Parcel 25. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater ("project"). Per the applicant, the amphitheater would hold a maximum of four events per month. An unmanned Southern California Edison (SCE) substation was analyzed for Parcel 25 in the Coachillin' Industrial Park Specific Plan; however, SCE determined that Parcel 25 is no longer needed for a substation. Parcel 25 is to be modified to a 420-space parking lot with solar covered parking. The proposed changes to the approved 2017 specific plan are summarized in the table below:

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The primary access for the project site is through a signalized project driveway on Indian Canyon Drive with additional two stop-controlled right-in/left-in/right-out only access points to Indian Canyon Drive at 18th Avenue and 19th Avenue. Parcel 30 and Parcel 31 will each have a right-in/left-in/right-out only access point on Indian Canyon Drive.

The proposed project is anticipated to be constructed and fully operational by year 2023.

STUDY AREA

Based on the study intersections identified in the approved scoping agreement (Appendix B), the study area consists of the following study intersections within the City of Desert Hot Springs, City of Palm Springs and California Department of Transportation (Caltrans) jurisdictions:

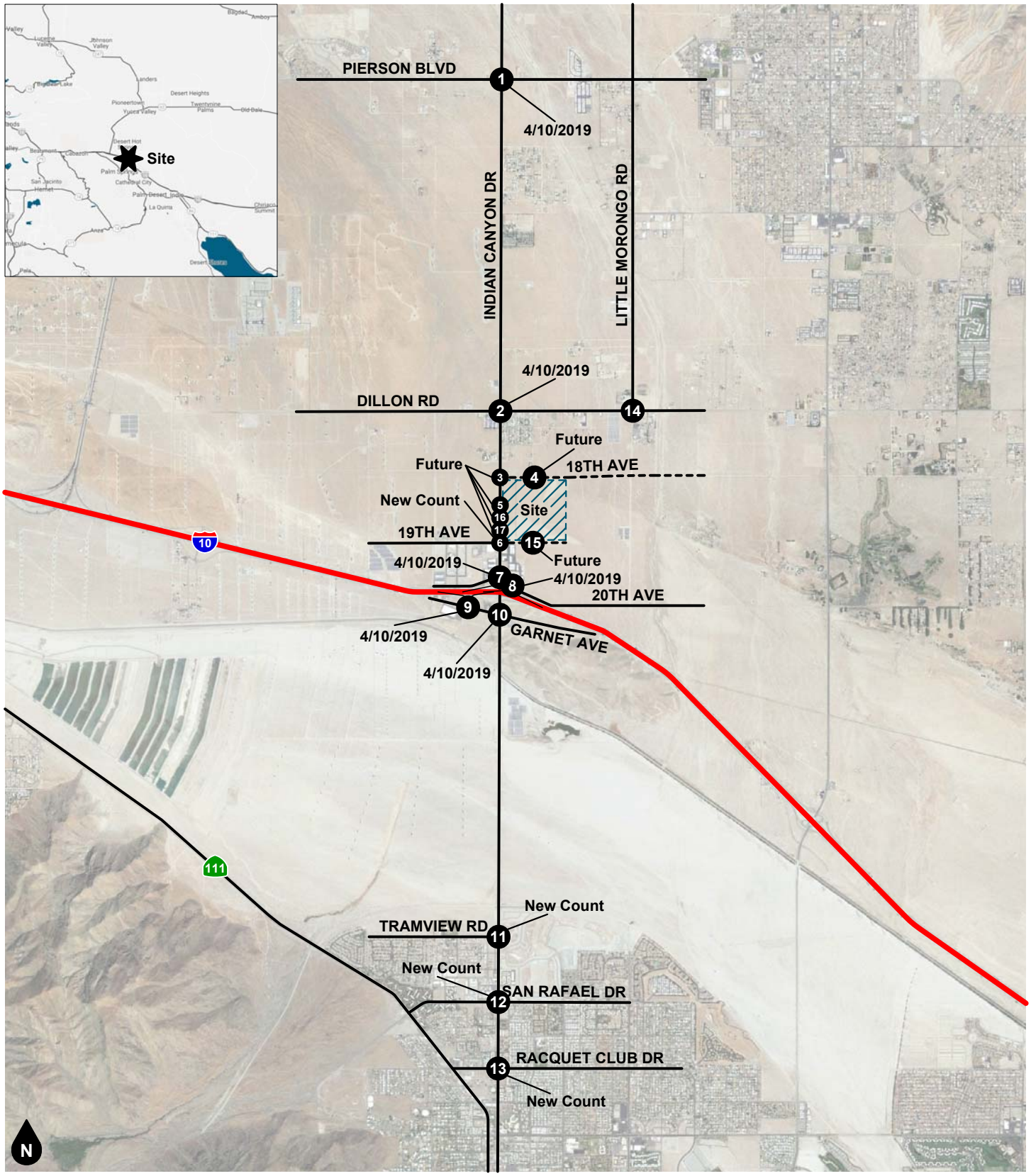
Study Intersections[1]	Jurisdiction
1. Indian Canyon Drive (NS) at Pierson Boulevard (EW)	City of Desert Hot Springs
2. Indian Canyon Drive (NS) at Dillon Road (EW)	City of Desert Hot Springs
3. Indian Canyon Drive (NS) at 18th Avenue (EW)	City of Desert Hot Springs
4. Project Driveway (NS) at 18th Avenue (EW)	City of Desert Hot Springs
5. Indian Canyon Drive (NS) at Project Driveway (EW)	City of Desert Hot Springs
6. Indian Canyon Drive (NS) at 19th Avenue (EW)	City of Desert Hot Springs
7. Indian Canyon Drive (NS) at 20th Avenue (EW)	City of Desert Hot Springs
8. I-10 Westbound Ramps (NS) at 20th Avenue (EW)	Caltrans /City of Desert Hot Springs
9. I-10 Eastbound Ramps (NS) at Garnet Avenue (EW)	Caltrans /City of Desert Hot Springs
10. Indian Canyon Drive (NS) at Garnet Avenue (EW)	City of Desert Hot Springs
11. Indian Canyon Drive (NS) at Tramview Road (EW)	City of Palm Springs
12. Indian Canyon Drive (NS) at San Rafael Drive (EW)	City of Palm Springs
13. Indian Canyon Drive (NS) at Racquet Club Road (EW)	City of Palm Springs
14. Little Morongo Road (NS) at Dillon Road (EW)	City of Desert Hot Springs
15. Project Driveway (NS) at 19th Avenue (EW)	City of Desert Hot Springs
16. Indian Canyon Drive (NS) at Parcel 30 Driveway (EW)	City of Desert Hot Springs
17. Indian Canyon Drive (NS) at Parcel 31 Driveway (EW)	City of Desert Hot Springs

ANALYSIS SCENARIOS

The following scenarios are analyzed during typical weekday morning and evening peak hour conditions:

- Existing Conditions
- Existing Plus Project Without Amphitheater Event Conditions
- Existing Plus Project With Amphitheater Event Conditions
- Opening Year (2023) Without Project Conditions
- Opening Year (2023) With Project Without Amphitheater Event Conditions
- Opening Year (2023) With Project With Amphitheater Event Conditions

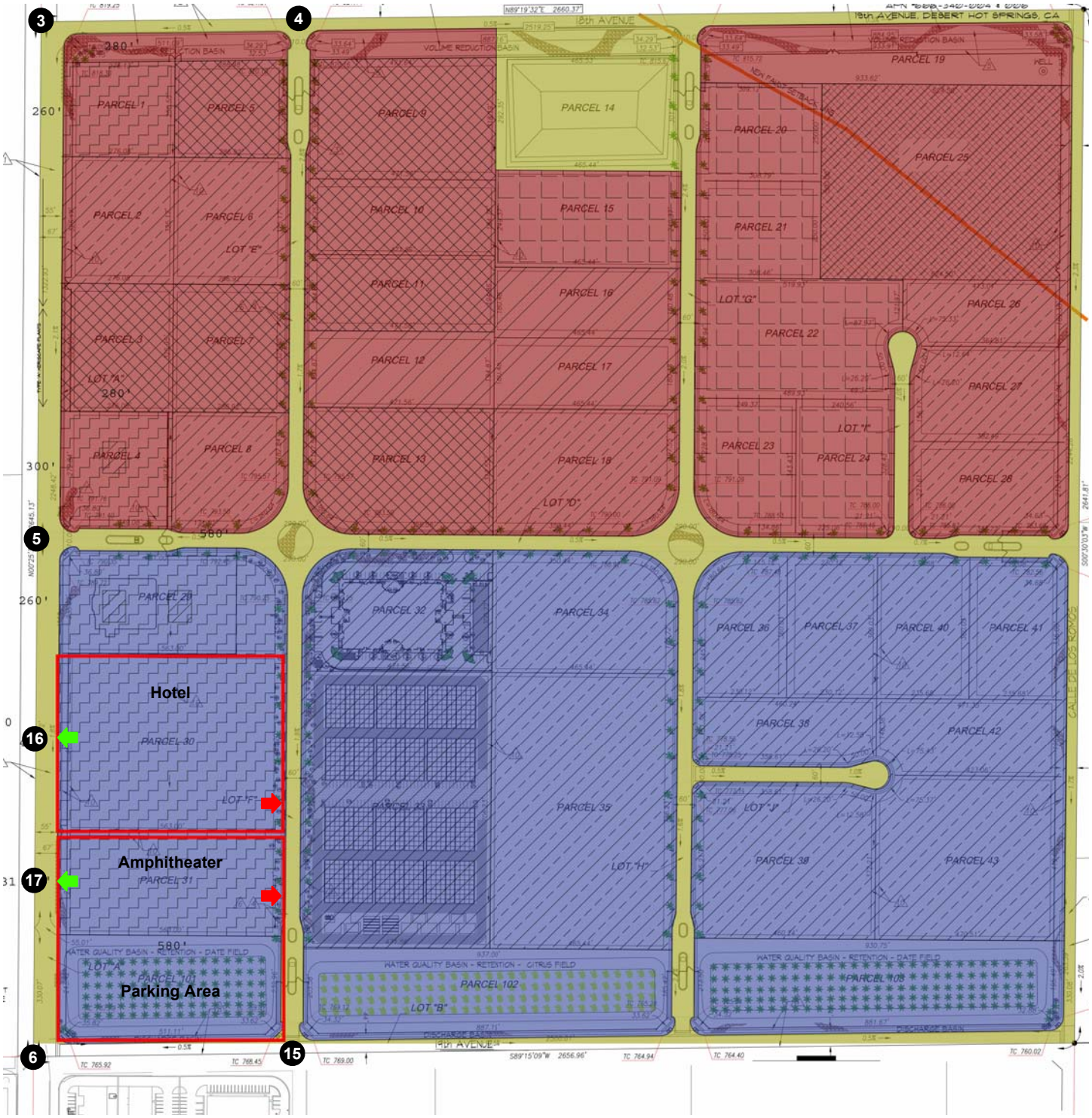
[1] (NS) = north-south roadway; (EW) = east-west roadway



Legend

(#) Study Intersection

Figure 1
Project Location Map



N

Legend

- # Study Intersection
- Right Turns In/Out Only Access Driveway
- Full Access Driveway

Figure 2
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies.

INTERSECTION DELAY METHODOLOGY

The technique used to assess the performance of intersections is known as the intersection delay methodology based on the procedures contained in the Highway Capacity Manual (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

Intersection delay analysis was performed using the Vistro (Version 6.00-00) software. Saturation flow rates of 1,800 vehicles per hour of green for through and right turn lanes and 1,700 vehicles per lane for single left turn lanes, 1,600 vehicles per lane for dual left turn lanes, and 1,500 vehicles per lane for triple left turn lanes have been assumed for the capacity analysis. Measured peak hour factors have been applied for existing and near-term conditions.

PERFORMANCE STANDARDS

County of Riverside. The definition of an intersection deficiency has been obtained from the County of Riverside General Plan. The General Plan states that peak hour intersection operations of Level of Service C or better are generally acceptable along all County maintained roads and conventional state highways. As an exception, Level of Service D may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterial Highways, Urban Arterial Highways, Expressways, conventional state highways or freeway ramp intersections.

California Department of Transportation. As stated in the Guide for the Preparation of Traffic Impact Studies (State of California, 2002), "California Department of Transportation endeavors to maintain a target LOS [Level of Service] at the transition between LOS "C" and LOS "D" on State highway facilities". The California Department of Transportation acknowledges this may not always be feasible and recommends consultation with the California Department of Transportation to determine the appropriate target Level of Service. For consistency with local requirements, this analysis defines Level of Service D as the minimum acceptable Level of Service for State Highway facilities.

City of Desert Hot Springs. The City of Desert Hot Springs has established Level of Service D as the minimum acceptable Level of Service.

THRESHOLDS OF SIGNIFICANCE

Based on the established performance standards, a potentially significant transportation impact is defined to occur if the project causes or worsens unacceptable Level of Service (E or F) at a study intersection.

3. EXISTING CONDITIONS

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for Existing conditions based on a field survey of the study area. Regional access to the project site is provided by the I-10 Freeway located approximately half mile south of the project site and State Route 62 (SR-62) located approximately four miles west of the project site. Local north-south circulation is provided by Indian Canyon Drive. Local east-west circulation is provided by Pierson Boulevard, Dillon Road, 20th Avenue, and Garnet Avenue.

GENERAL PLAN CONTEXT

Figure 4 shows the City of Desert Hot Springs General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Desert Hot Springs standard roadway cross-sections are illustrated on Figure 5.

TRANSIT SERVICE

Figure 6 shows Existing public transit facilities and routes in the project vicinity. There are currently no transit lines in the immediate project vicinity. The nearest transit line is located approximately three miles east of the project at Two Bunch Palms Trail/West Drive.

BICYCLE FACILITIES

The City of Desert Hot Springs bike paths are illustrated on Figure 7. There are currently no existing bicycle facilities in the immediate project vicinity. Sidewalks are not provided on both sides of the street along Indian Canyon Drive.

EXISTING ROADWAY VOLUMES

Figure 8 shows the Existing average daily traffic volumes. The Existing average daily traffic volumes have been factored from peak hour intersection turning movement volumes using the following formula for each intersection leg:

Evening Peak Hour (Approach Volume + Exit Volume) x 11.9[2] = Leg Volume.

The peak hour to daily volume factor was derived based on a comparison of the existing evening peak hour intersection turning movement volumes with sample 24-hour roadway segment volume data obtained from the Coachella Valley Association of Governments Traffic Census Report (2017). This is a conservative estimate and may over-estimate the average daily traffic volumes.

Existing peak hour traffic conditions are based upon weekday morning peak period, weekday evening peak period and Saturday mid-day peak period intersection turning movement counts obtained in April and August 2019 during typical weekday and Saturday conditions. The weekday morning peak period was counted between 7:00 AM and 9:00 AM, the weekday evening peak period was counted between 4:00 PM and 6:00 PM, and the Saturday mid-day peak period was counted between 11:00 AM and 1:00 PM. The actual peak hour within the peak period is the four consecutive 15 minute periods with the highest total volume when all movements are added together. Thus, the weekday evening peak hour at one intersection may be 4:45 PM

[2] Source: Approximate average evening peak hour K factor based on a comparison of the existing peak hour intersection turning movement counts with the roadway segment daily traffic volume data.

to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Appendix C. Since traffic counts were conducted in 2019, a 2% annual growth rate for 2 years or a total growth of 4% is applied to the 2019 counts to represent the current 2021 conditions.

Figure 9 and Figure 10 show the Existing morning peak hour and evening peak hour intersection turning movement volumes.

EXISTING LEVEL OF SERVICE

The intersection Levels of Service for Existing conditions have been calculated and are shown in Table 1. Existing intersection Level of Service worksheets are provided in Appendix D.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (E or F):

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/19th Avenue – #6 (AM peak hour)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)

EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS

Traffic signal warrants are satisfied at the following study intersections based upon the California Manual on Uniform Traffic Control Devices (2014), peak hour volume warrant (Warrant 3), for Existing conditions:

- Indian Canyon Drive/Pierson Boulevard – #1
- Indian Canyon Drive/Dillon Road – #2
- Little Morongo Road/Dillon Road – #14

Traffic signal warrant analysis worksheets are provided in Appendix E.

Table 1

Existing 2021 Intersection Levels of Service

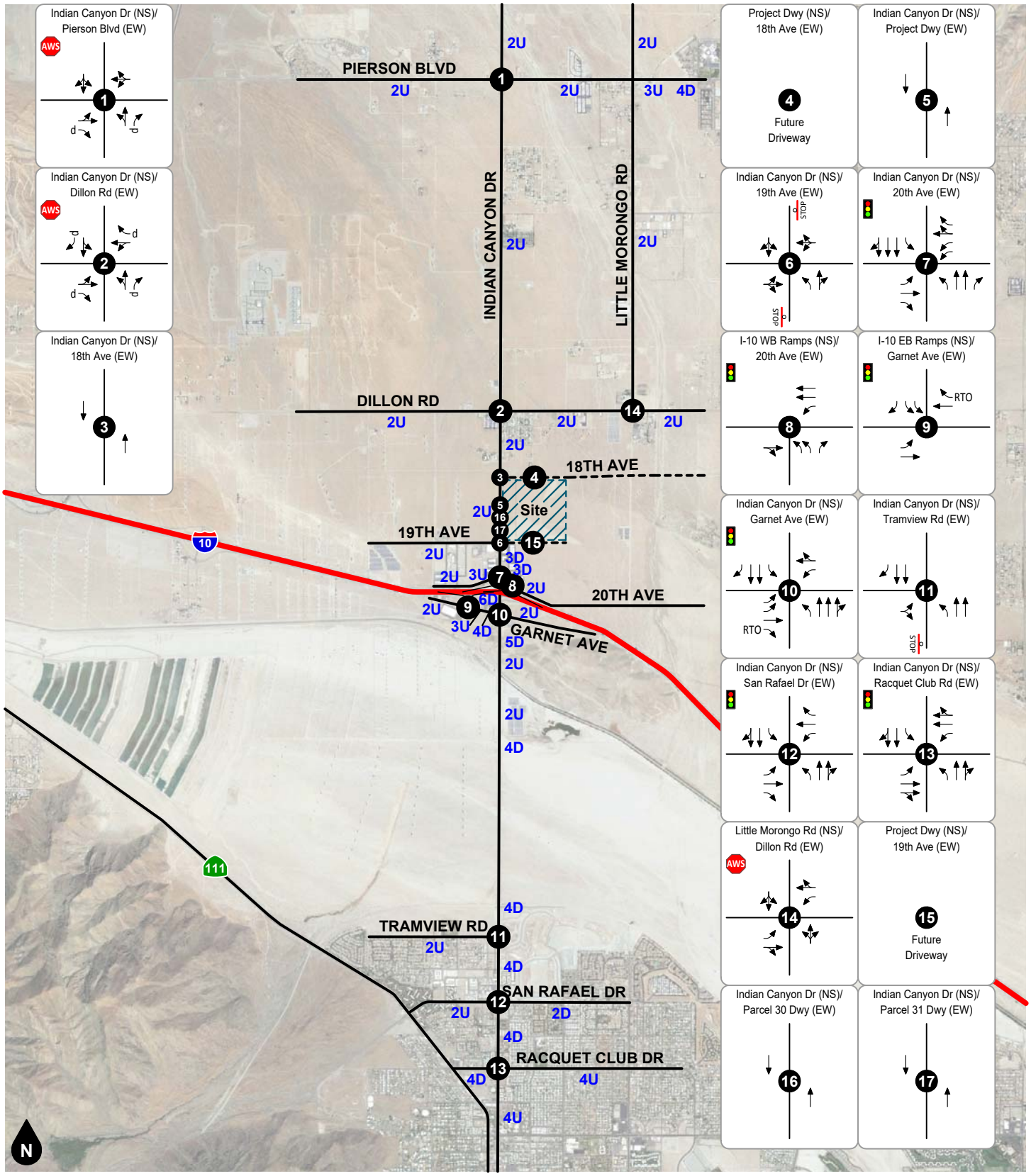
Study Intersection	Traffic Control[1]	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Indian Cyn Dr at Pierson Blvd	AWS	18.4	C	15.0	B	11.6	B
2. Indian Cyn Dr at Dillon Blvd	AWS	63.4	F	22.4	C	14.1	B
6. Indian Cyn Dr at 19th Ave	CSS	32.0	D	27.2	D	15.1	C
7. Indian Cyn Dr at 20th Ave	TS	15.2	B	15.7	B	13.9	B
8. I-10 WB Ramps at 20th Ave	TS	24.5	C	23.5	C	25.4	C
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	14.6	B	16.3	B
10. Indian Cyn Dr at Garnet Ave	TS	15.2	B	14.3	B	14.9	B
11. Indian Cyn Dr at Tramview Rd	CSS	24.7	C	11.7	B	10.8	B
12. Indian Cyn Dr at San Rafael Dr	TS	15.8	B	17.2	B	13.9	B
13. Indian Cyn Dr at Racquet Club Rd	TS	15.6	B	16.1	B	15.8	B
14. Little Morongo Rd at Dillon Rd	AWS	46.8	E	15.6	C	10.9	B

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst approach.

(3) LOS = Level of Service



Legend

- Traffic Signal
- AWS All Way Stop
- STOP Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- RTO Right Turn Overlap
- d De Facto Right Turn Lane

Figure 3
Existing Lane Geometry and Intersection Traffic Controls

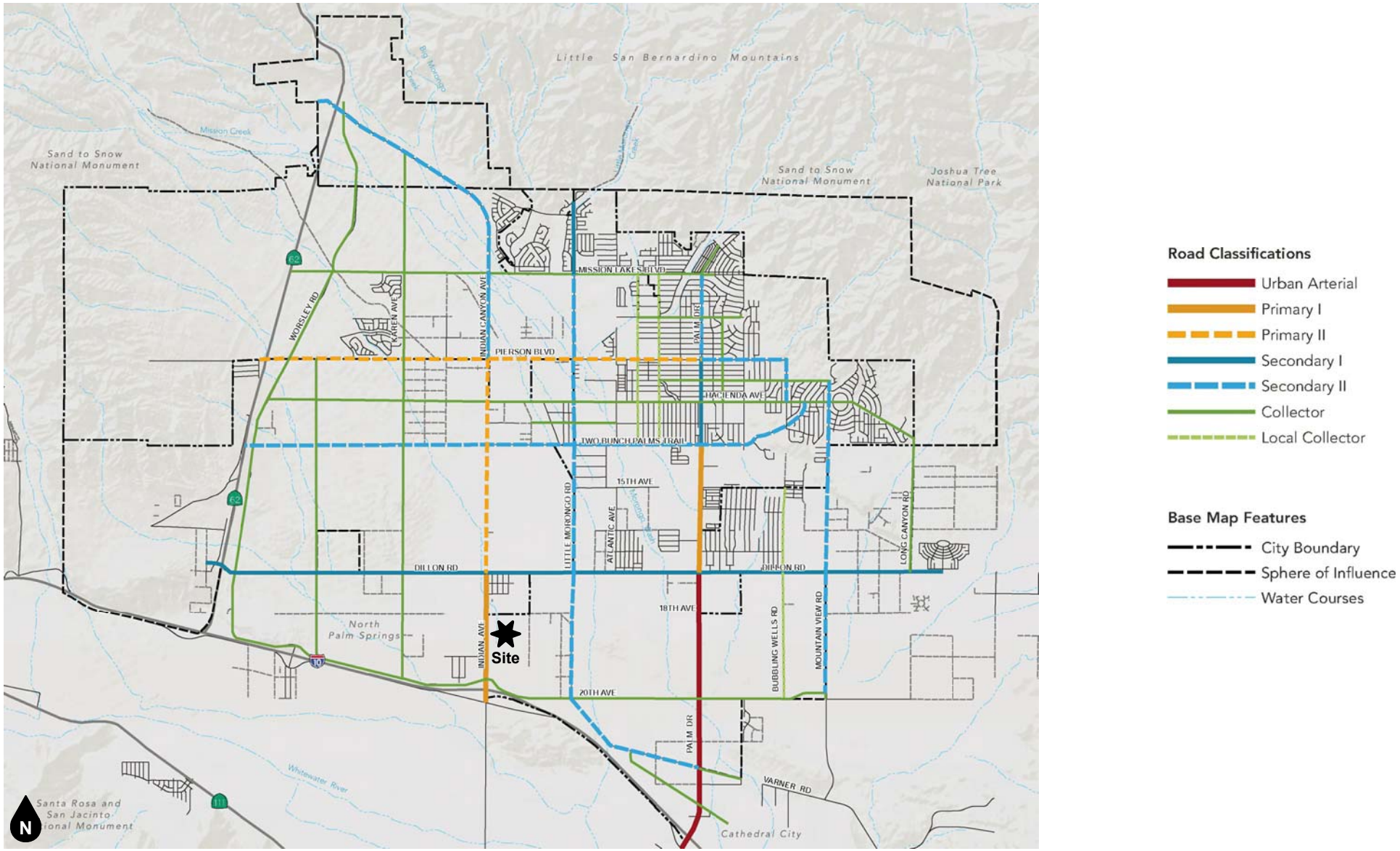


Figure 4
City of Desert Hot Springs General Plan Circulation Element

Source: City of Desert Hot Springs

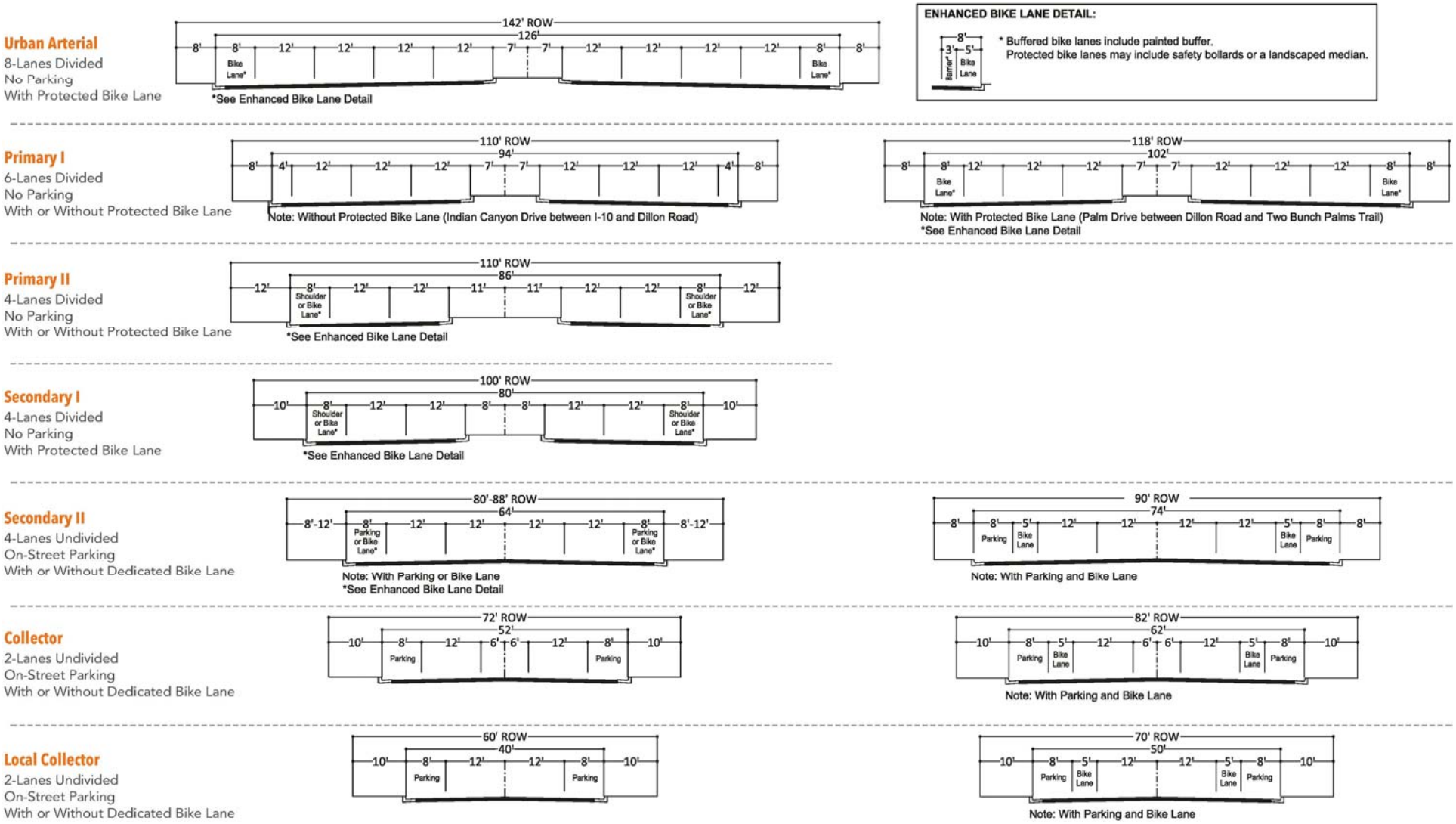


Figure 5
City of Desert Hot Springs General Plan Roaddway Cross-Sections

Source: City of Desert Hot Springs

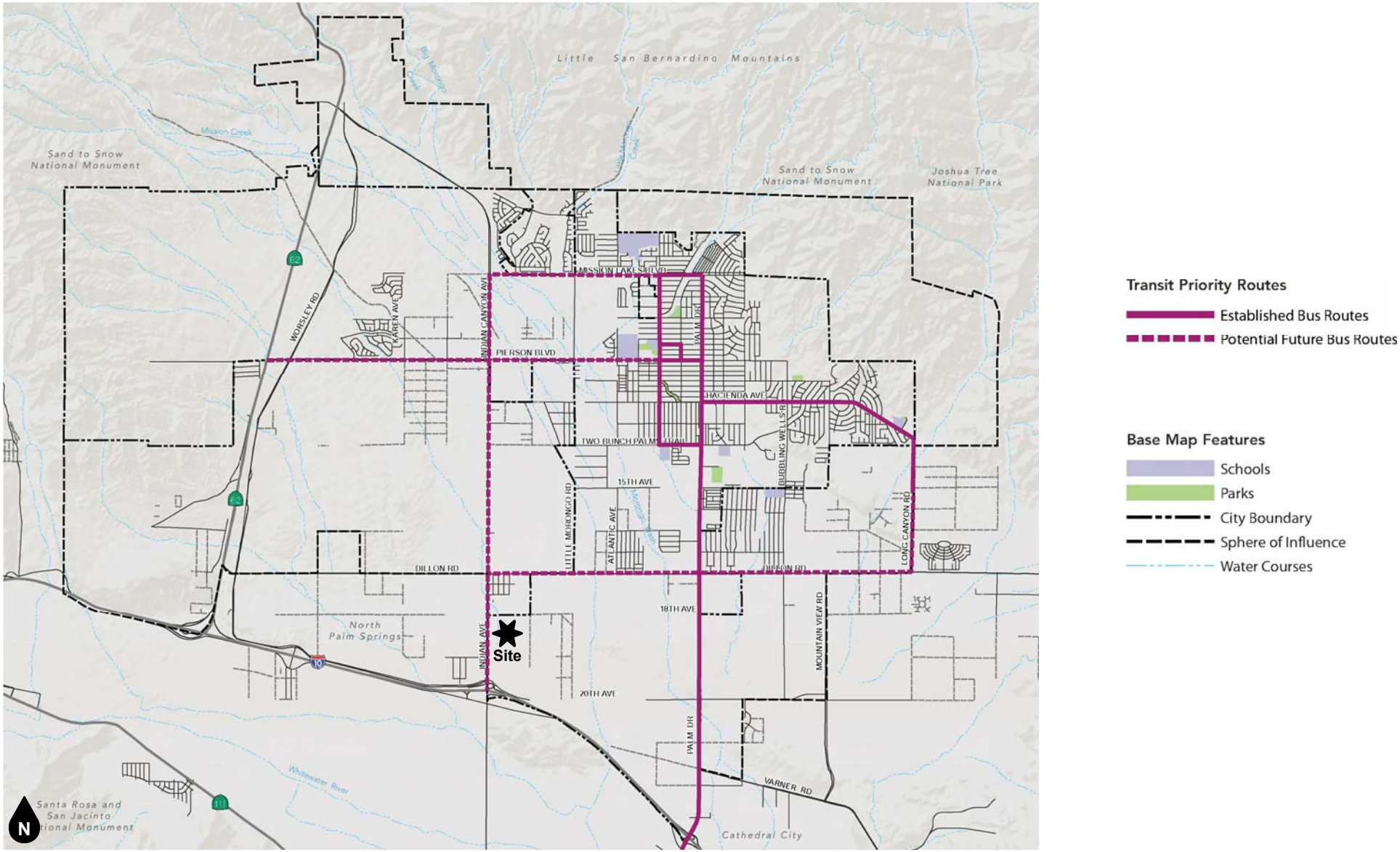


Figure 6
Existing Transit Routes

Source: City of Desert Hot Springs

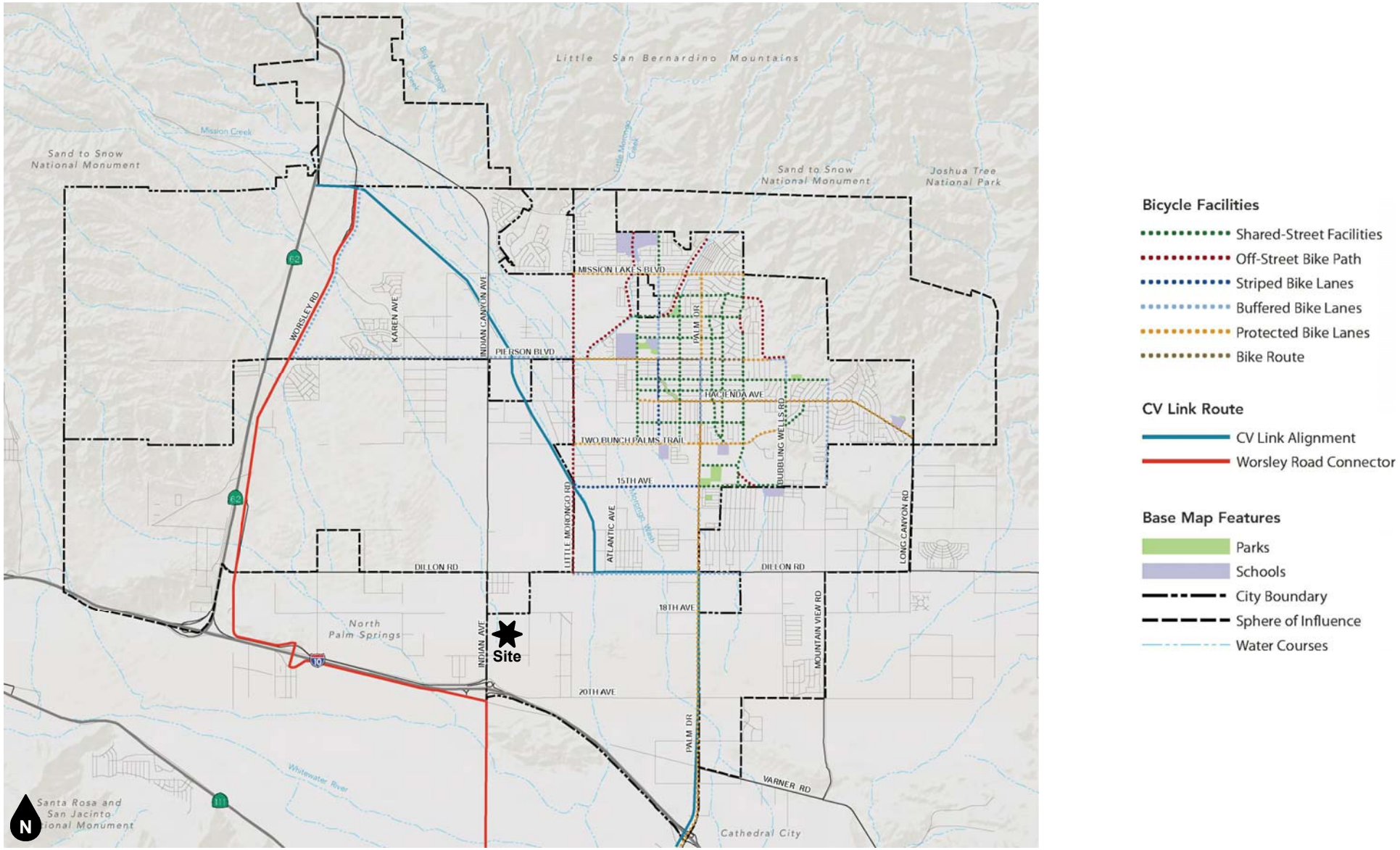
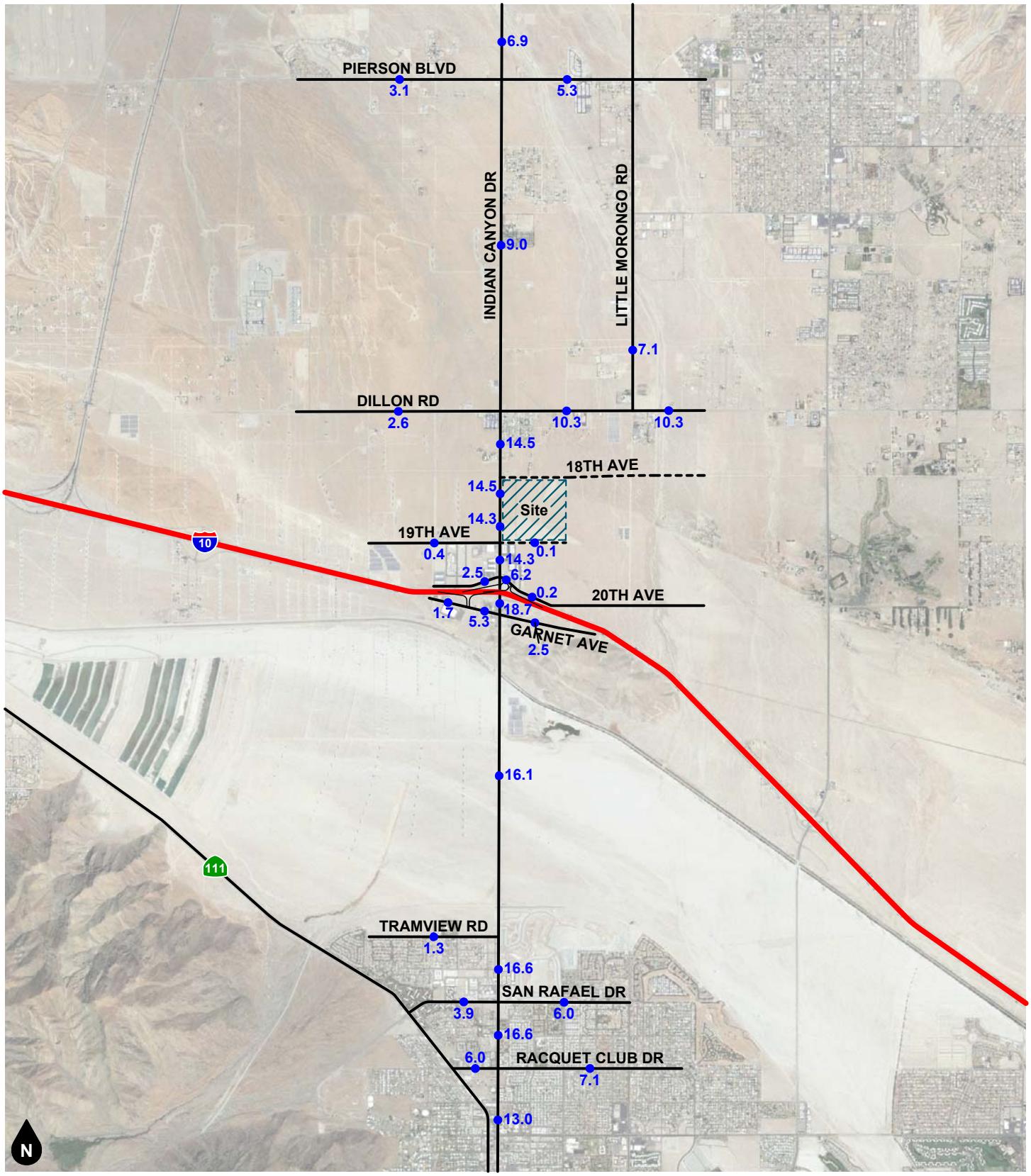


Figure 7
City of Desert Hot Springs General Plan Bike Routes

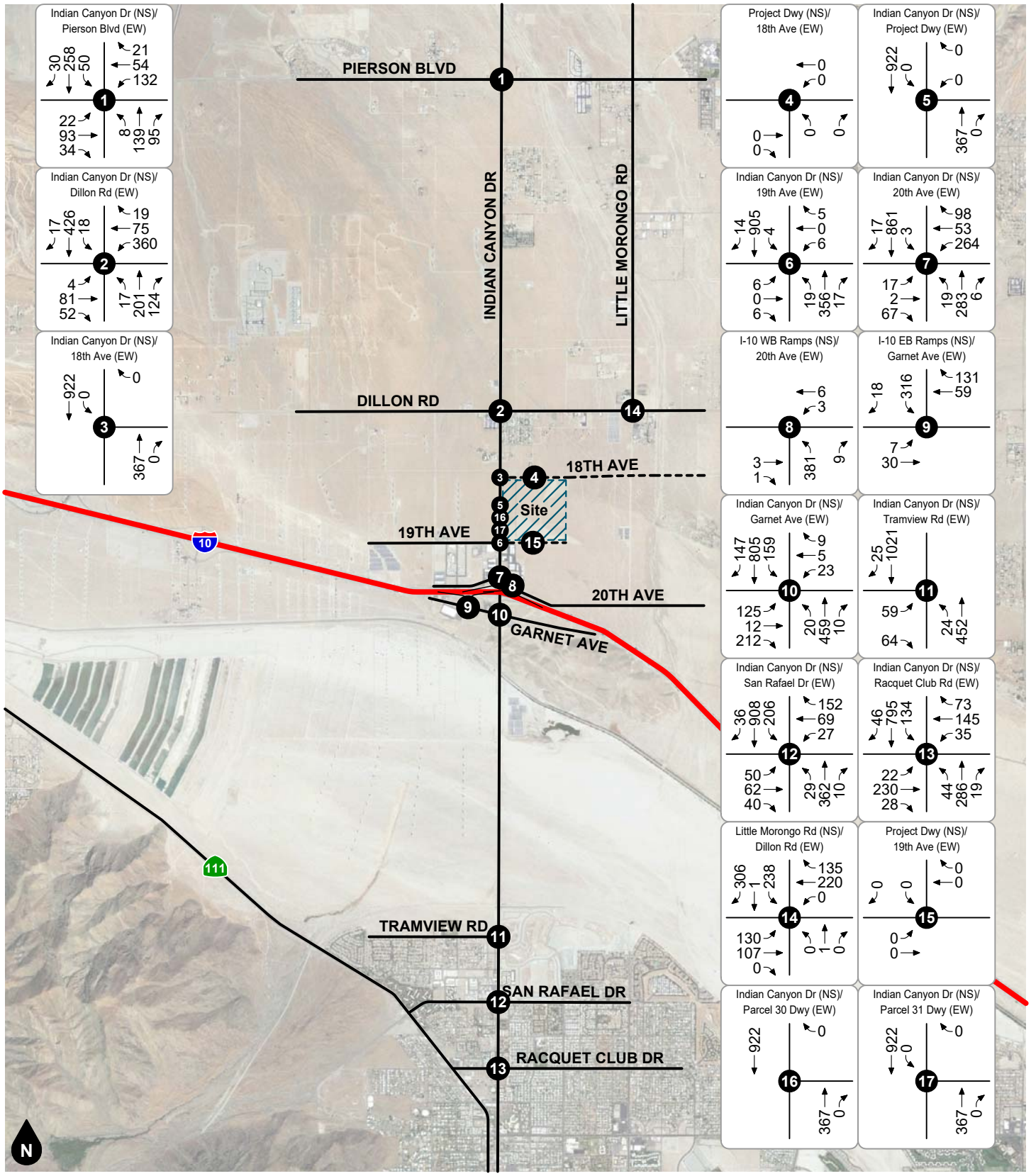
Source: City of Desert Hot Springs



Legend

●## Vehicles Per Day (1,000's)

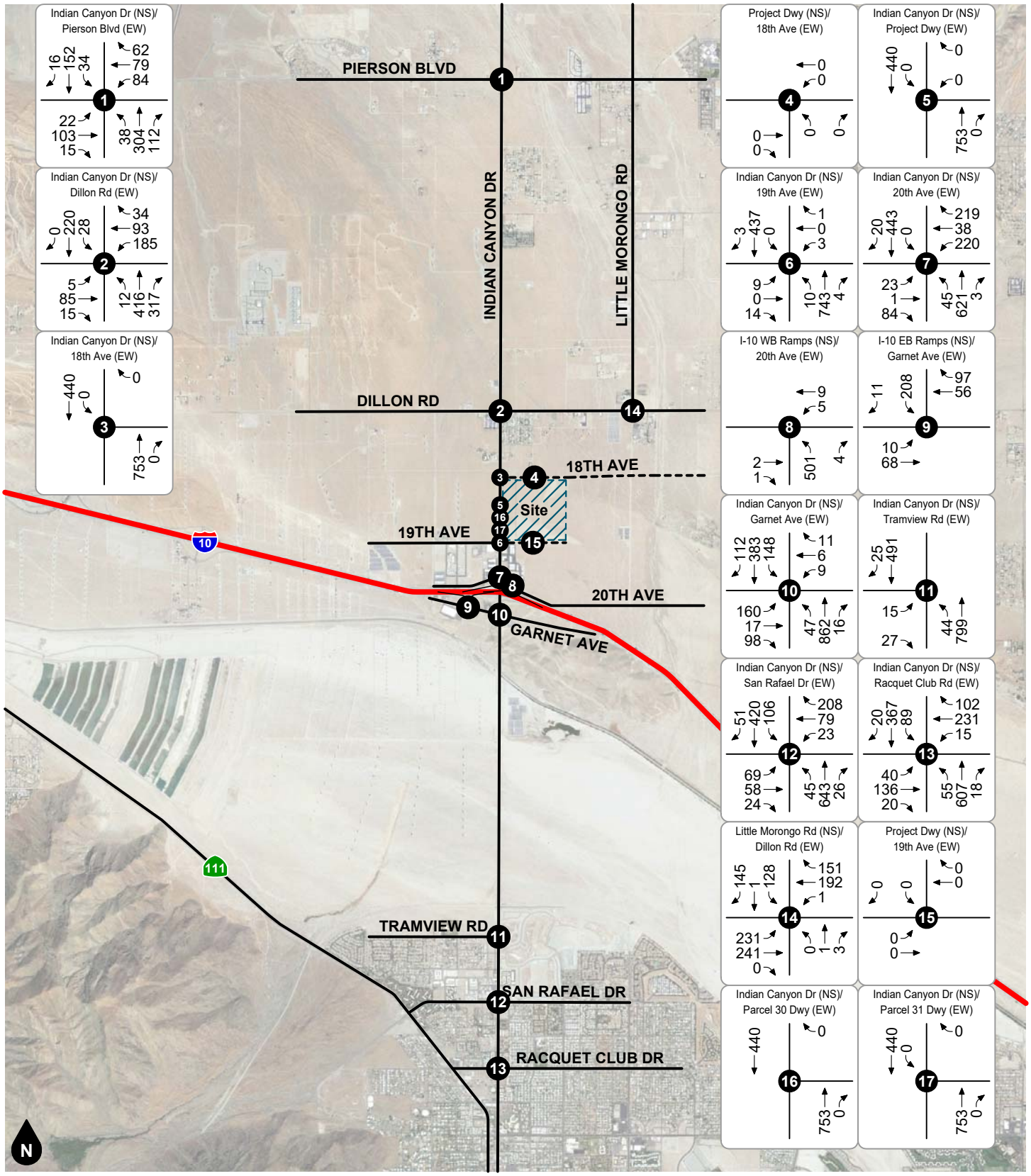
Figure 8
Existing Average Daily Traffic Volumes



Legend

(#) Study Intersection

Figure 9
Existing AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 10
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT TRIP GENERATION

The project site is located east of Indian Canyon Drive between 18th Avenue and 19th Avenue in the City of Desert Hot Springs. The Coachillin' Industrial Park was approved in 2017. The approved Coachillin' Industrial Park consists of developing the currently vacant project site with approximately 2,800,000 square feet of building envelope grow sites for cannabis cultivation, processing, and distribution uses. The approved industrial park project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day.

For the currently proposed Specific Plan Amendment, submitted to the City in 2021, the applicant is proposing to modify the allowed land uses for a small portion of the previously-approved Coachillin' Industrial Park Specific Plan within Parcel 30, Parcel 31, and Parcel 25. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater ("project"). Per the applicant, the amphitheater would hold a maximum of four events per month. An unmanned Southern California Edison (SCE) substation was analyzed for Parcel 25 in the Coachillin' Industrial Park Specific Plan; however, SCE determined that Parcel 25 is no longer needed for a substation. Parcel 25 is to be modified to a 420-space parking lot with solar covered parking. The proposed changes to the approved 2017 specific plan are summarized in the table below:

Approved 2017 Specific Plan	Proposed 2021 Specific Plan
2,800,000 Square Foot Industrial Park (Cannabis)	2,800,000 Square Foot Industrial Park (Cannabis) 175-Room Hotel in Parcel 30 5,000-Seat Amphitheater in Parcel 31 420-space parking lot in Parcel 25

The trip generation for the industrial portion of the project is estimated based upon customized trip rates developed using the proposed project operational characteristics provided by the applicant. The trip generation for the proposed 175-room hotel in Parcel 30 will be based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. For the proposed 5,000-seat amphitheater in Parcel 31, the trip generation is estimated be based on the operational characteristics.

The trip rates for the industrial portion of the project were developed based on based on surveys from lot owners for their proposed operations, which includes information in regards to building envelope square footage, number of employees, shifts, visitors, deliveries, and hours of operation. Appendix B shows the scoping agreement that included the detailed trip generation calculations in the development of the customized trip rates. The sample survey included operational data for Lots 1, 2, 5, 6, 7, 8, 13, 17, and 22. Adjustments have been made for employee shift changes and deliveries occurring during off-peak periods that are outside of the typical morning peak period between 7:00 AM and 9:00 AM and the typical afternoon peak period between 4:00 PM and 6:00 PM. An off-peak reduction adjustment of 85% was made to employee and delivery trips for the morning and afternoon peak hours while no reduction adjustment was made to the visitor trips. The applicant is committed to minimize the project's traffic impact to the surrounding roadway network during the typical morning and evening peak periods by scheduling a minimum of 85% of their employee shift changes to occur during the off-peak periods.

Two trip generation rates were estimated: one was based on building envelope square footage and the other one was based on number of employees. It appears that the employee-based trip generation rates are more reasonable such that it is more likely that the project will generate in the order of magnitude of 3,000 daily

trips based on 1,510 employees. The square footage-based trip rates seem to overstate the daily trips with more than 5,000 daily trips. Since most of the project trips will be generated by the employees, it is unlikely that a development with only 1,510 employees will generate 5,000 daily trips.

The applicant is proposing to modify a small portion of the approved Coachillin' Industrial Park within Parcel 30 and Parcel 31. Parcel 30 will include a 175-room hotel. Parcel 31 will include a 5,000-seat amphitheater. Per the applicant, the amphitheater is anticipated to hold events no more than three to four times a month that may occur during the weekends or the weekdays at a maximum of one event per day. Parcel 25 is to be modified to include a 420-space parking lot with no specific use identified at this time and is therefore assumed to serve as general overflow parking for other parcels within the Specific Plan.

For the amphitheater event trip generation assumptions, a maximum of one event per day is assumed with 4 attendees (seats) riding in each vehicle which one vehicle generates 2 trip-ends per day [(1 vehicle / 4 seat) x 2 trips = 0.500 trips per seat]. No event during the weekday AM peak hour. For a weekday afternoon event, 80% of the attendees arrive during the weekday PM peak hour [(1 vehicle / 4 seat) x 80% = 0.200 PM trips per seat] with a directional split of 85% inbound and 15% outbound. For a Saturday event, 85% of the attendees arrive during the Saturday mid-day peak hour [(1 vehicle / 4 seat) x 85% = 0.213 mid-day trips per seat] with a directional split of 15% inbound and 85% outbound.

Table 2 shows the project trip generation based on the assumptions discussed above. As shown in Table 2, the worst case scenario for the proposed project with amphitheater event is forecast to generate a total of approximately 7,419 weekday daily trips with 6,088 Saturday daily trips, including 333 weekday AM peak hour trips, 1,448 weekday PM peak hour trips and 1,440 Saturday mid-day peak hour trips. Without amphitheater event during typical conditions, the proposed project is forecast to generate a total of approximately 4,919 weekday daily trips with 3,588 Saturday daily trips, including 333 weekday AM peak hour trips, 448 weekday PM peak hour trips and 375 Saturday mid-day peak hour trips.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The project trip distribution patterns are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity. The primary access for the project site is through a signalized project driveway on Indian Canyon Drive with additional two stop-controlled right-in/left-in/right-out only access points to Indian Canyon Drive at 18th Avenue and 19th Avenue. Parcel 30 and Parcel 31 will each have a right-in/left-in/right-out only access point on Indian Canyon Drive. A traffic control management plan will be implemented during the events for the amphitheater with manual traffic control at 19th Avenue and the Parcel 31 driveway.

Figure 11 and Figure 12 show the forecast directional outbound and inbound distribution patterns for the industrial portion of the project trips. Figure 13 and Figure 14 show the forecast directional outbound and inbound distribution patterns for the hotel trips in Parcel 30. Figure 15 and Figure 16 show the forecast directional outbound and inbound distribution patterns for amphitheater event trips in Parcel 31.

Based on the identified project trip generation and distributions, project without Amphitheater average daily traffic volumes have been calculated and shown on Figure 17. Project without Amphitheater Event weekday AM peak hour, weekday PM peak hour and Saturday mid-day peak hour intersection turning movement volumes expected from the project are depicted on Figure 18, Figure 19 and Figure 20 respectively.

For the worst case scenario, project with Amphitheater average daily traffic volumes have been calculated and shown on Figure 21. Project with Amphitheater Event weekday AM peak hour, weekday PM peak hour and Saturday mid-day peak hour intersection turning movement volumes expected from the project are depicted on Figure 22, Figure 23 and Figure 24 respectively.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project to provide project site access:

Indian Canyon Drive at 18th Avenue (Intersection #3)

- Install westbound stop sign.
- Provide northbound right turn lane.
- Provide southbound left turn lane.
- Restrict westbound left turn and provide westbound right turn lane.

Project Driveway at 18th Avenue (Intersection #4)

- Install northbound stop sign.
- Provide northbound left/right turn lane.
- Provide eastbound through/right lane.
- Provide westbound left/through lane.

Indian Canyon Drive at Project Driveway (Intersection #5)

- Install a traffic signal.
- Provide a southbound left turn lane.
- Provide a westbound left/right turn lane.

Indian Canyon Drive at 19th Avenue (Intersection #6)

- Install westbound stop sign.
- Provide southbound left turn lane.
- Restrict westbound left turn and provide westbound right turn lane.

Project Driveway at 19th Avenue (Intersection #15)

- Install southbound stop sign.
- Provide southbound left/right turn lane.
- Provide eastbound left/through lane.
- Provide westbound through/right lane.

Indian Canyon Drive at Parcel 30 Driveway (Intersection #16)

- Install westbound stop sign.
- Provide westbound right turn lane.

Indian Canyon Drive at Parcel 31 Driveway (Intersection #17)

- Install westbound stop sign.
- Provide westbound right turn lane.

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for conditions with Amphitheater Event:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #16

This traffic study is a high-level planning document that recommended manual traffic control at the parking lot entrances be implemented by the venue management during amphitheater events. A more detailed traffic

circulation control plan should be provided by the applicant and venue management as another submittal separately from this high-level traffic study. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17].

Table 2
Project Trip Generation

Trip Generation Rates[1]																	
Project				Weekday AM Peak			Weekday PM Peak			Weekday Daily	Weekend AM Peak			Saturday Mid-Day Peak			Saturday Daily
No.	Land Use	Code[1]	Unit[2]	In%	Out%	Total	In%	Out%	Total		In%	Out%	Total	In%	Out%	Total	
1	Coachillin Industrial Park Cultivation Building Envelope	Survey[3]	TSF	84%	16%	0.111	40%	60%	0.158	1.689	80%	20%	0.085	43%	57%	0.124	1.190
2	Coachillin Industrial Park Cultivation Employees	Survey[3]	EMP	84%	16%	0.166	34%	66%	0.227	2.289	77%	23%	0.113	41%	59%	0.165	1.427
3	Hotel	ITE 310	RM	59%	41%	0.470	51%	49%	0.600	8.360	56%	44%	0.720	56%	44%	0.720	8.190
4	Professional Baseball Stadium	ITE 462	ATT	75%	25%	0.020	12%	88%	0.150	1.240	7%	93%	0.230	7%	93%	0.230	1.240
5	Outdoor Stadium	SANDAG[4]	SEAT	75%	25%	0.003	12%	88%	0.024	0.200	7%	93%	0.037	7%	93%	0.037	0.200
6	Amphitheater Event	Project[5]	SEAT	0%	0%	0.000	85%	15%	0.200	0.500	7%	93%	0.037	15%	85%	0.213	0.500

Trips Generated																	
Project			Weekday AM Peak			Weekday PM Peak			Weekday Daily	Weekend AM Peak			Saturday Mid-Day Peak			Saturday Daily
No.	Land Use	Quantity[2]	In	Out	Total	In	Out	Total		In	Out	Total	In	Out	Total	
A	Coachillin Industrial Park Cultivation Building Envelope	2,800.000 TSF	260	50	310	176	266	442	4,729	190	48	238	148	199	347	3,332
B	Coachillin Industrial Park Cultivation Employees	1,510 EMP	210	41	251	118	225	343	3,456	131	39	170	103	146	249	2,155
C	Hotel	175 RM	48	34	82	54	51	105	1,463	71	55	126	71	55	126	1,433
D	Professional Baseball Stadium	5,000 ATT	75	25	100	90	660	750	6,200	80	1,070	1,150	80	1,070	1,150	6,200
E	Outdoor Stadium	5,000 SEAT	10	5	15	15	105	120	1,000	15	170	185	15	170	185	1,000
F	Amphitheater Event	5,000 SEAT	-	-	-	850	150	1,000	2,500	15	170	185	160	905	1,065	2,500
Total Project Trips with Events (B+C+F)			258	75	333	1,022	426	1,448	7,419	217	264	481	334	1,106	1,440	6,088
Total Project Trips without Events (B+C)			258	75	333	172	276	448	4,919	202	94	296	174	201	375	3,588

Notes:

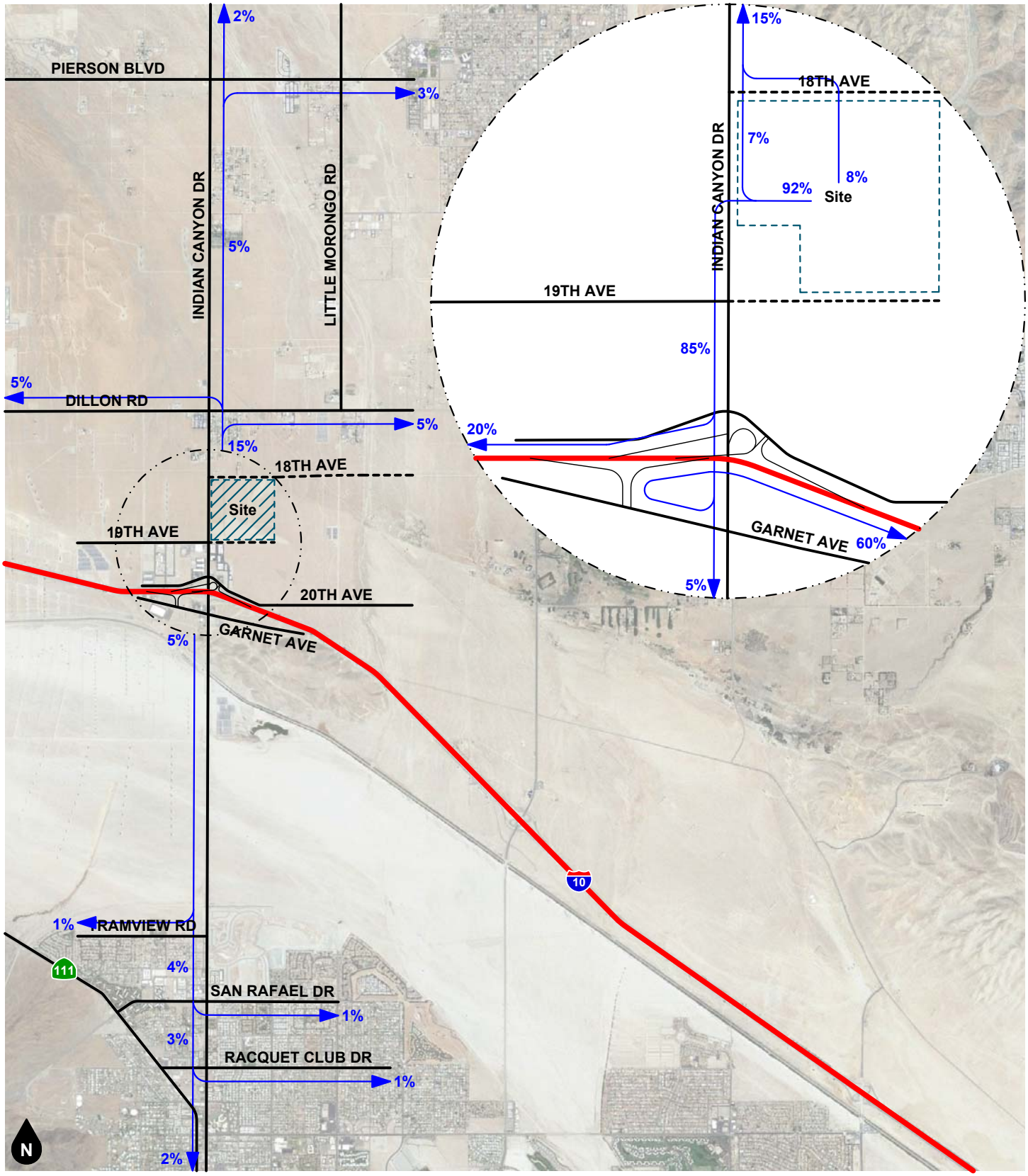
(1) Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition, 2012.

(2) TSF = Thousand Square Feet; EMP = Employees; ATT = Attendees; SEAT = Seats

(3) Customized trip generation rates estimated based on surveys from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation. Additional adjustments has been made for employee shift changes and deliveries occurring during street off-peak periods. See Appendix A.

(4) San Diego Association of Governments (SANDAG), Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

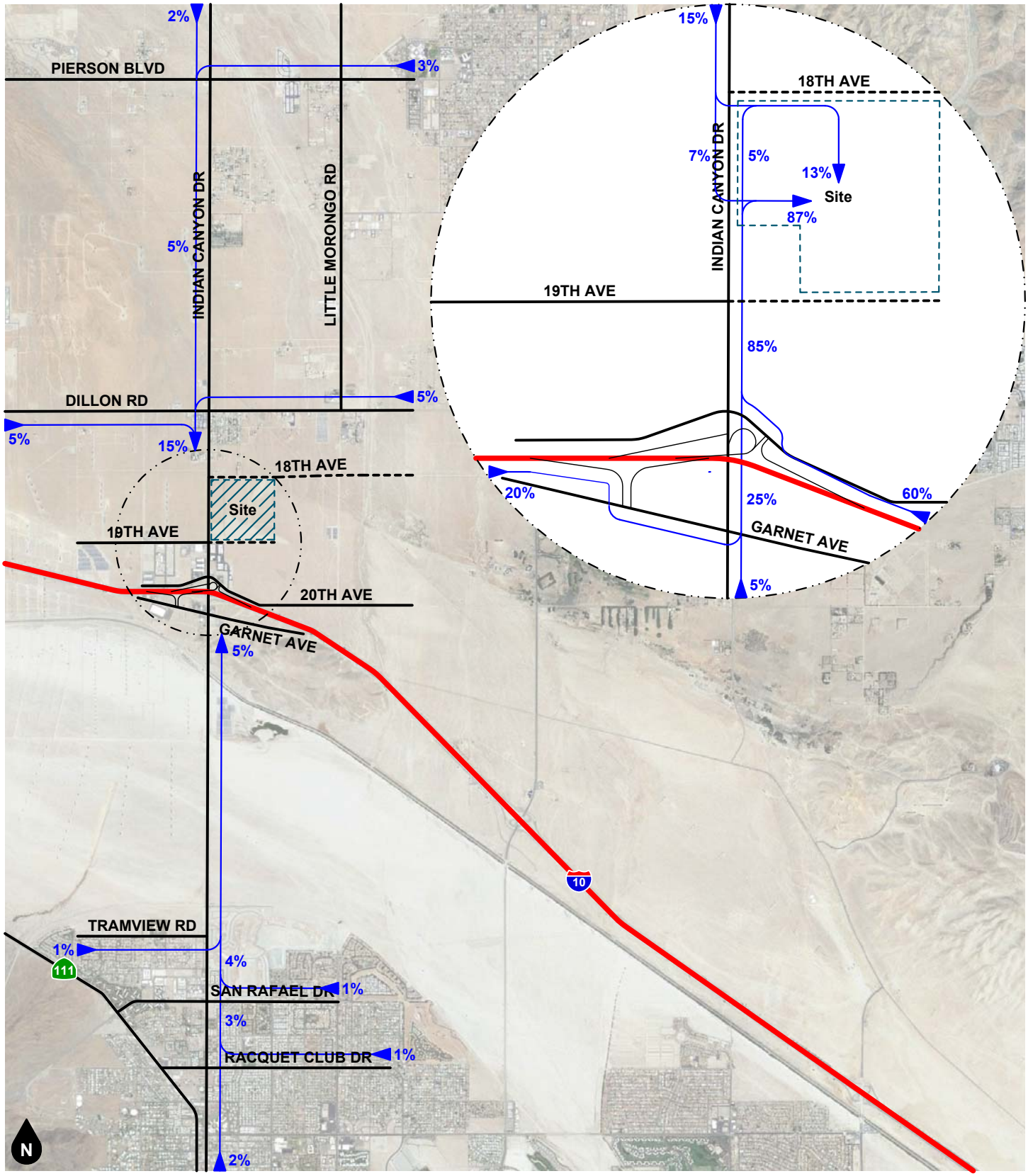
(5) A maximum of one event per day, 4 attendees (seats) riding in each vehicle which one vehicle generates 2 trip-ends per day [(1 vehicle / 4 seat) x 2 trips = 0.500 trips per seat]. No event during the weekday AM peak hour. For a weekday afternoon event, 80% of the attendees arrive during the weekday PM peak hour [(1 vehicle / 4 seat) x 80% = 0.200 PM trips per seat] with a directional split of 85% inbound and 15% outbound. For a Saturday event, 85% of the attendees arrive during the Saturday mid-day peak hour [(1 vehicle / 4 seat) x 85% = 0.213 mid-day trips per seat] with a directional split of 15% inbound and 85% outbound.



Legend

10% Percent From Project

Figure 11
Project Industrial Outbound Trip Distribution



Legend

10% Percent To Project

Figure 12
Project Industrial Inbound Trip Distribution

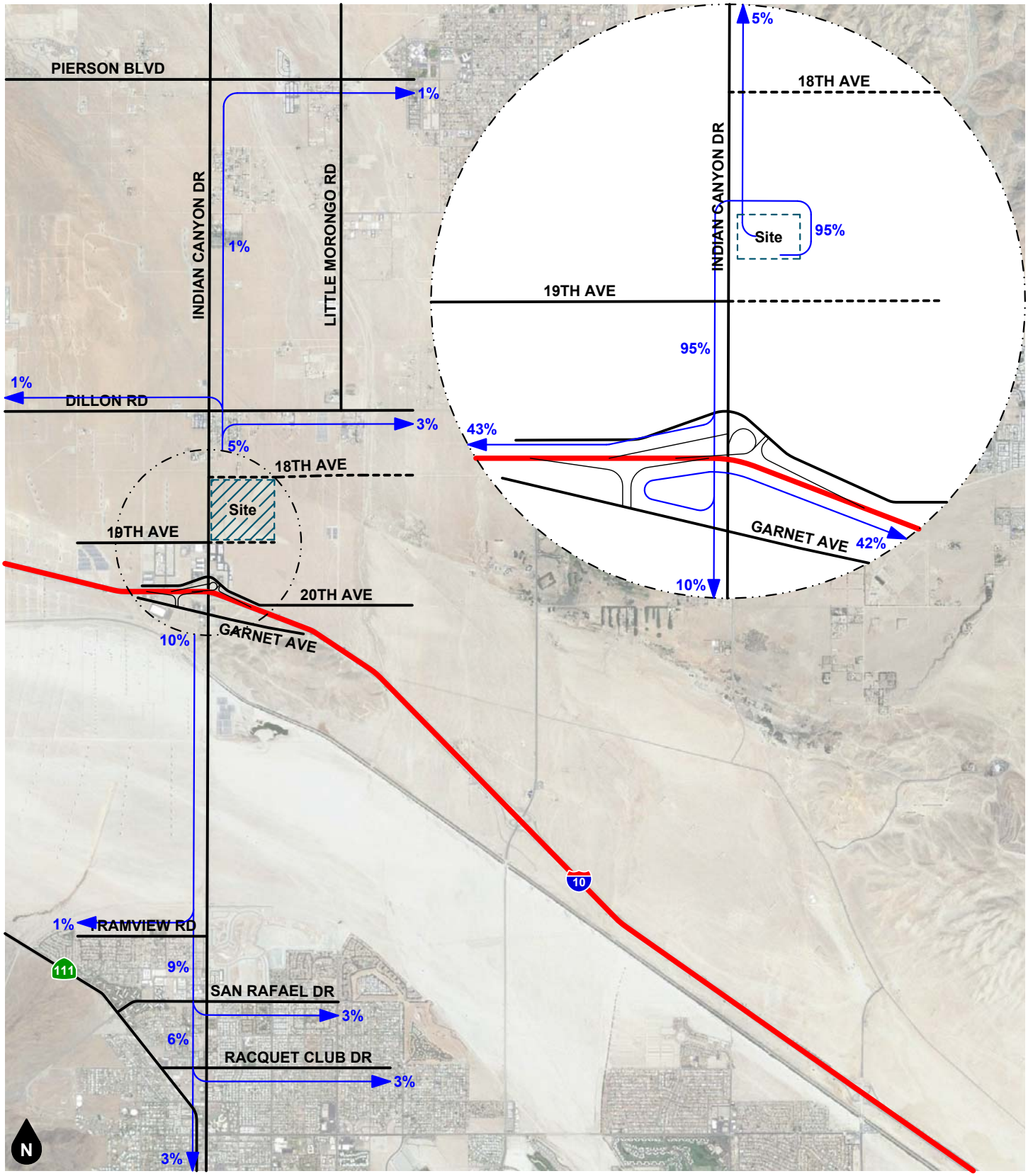
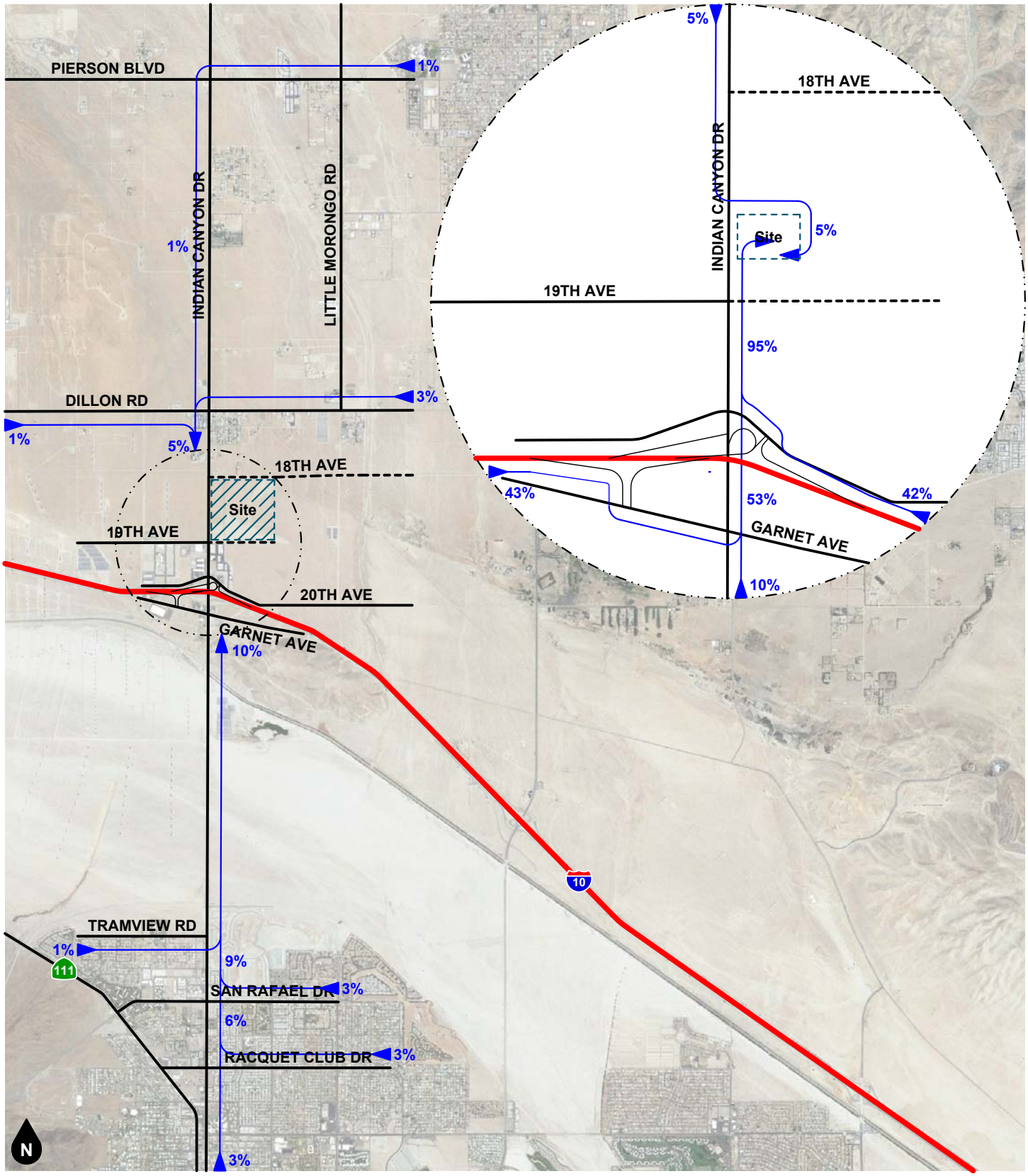


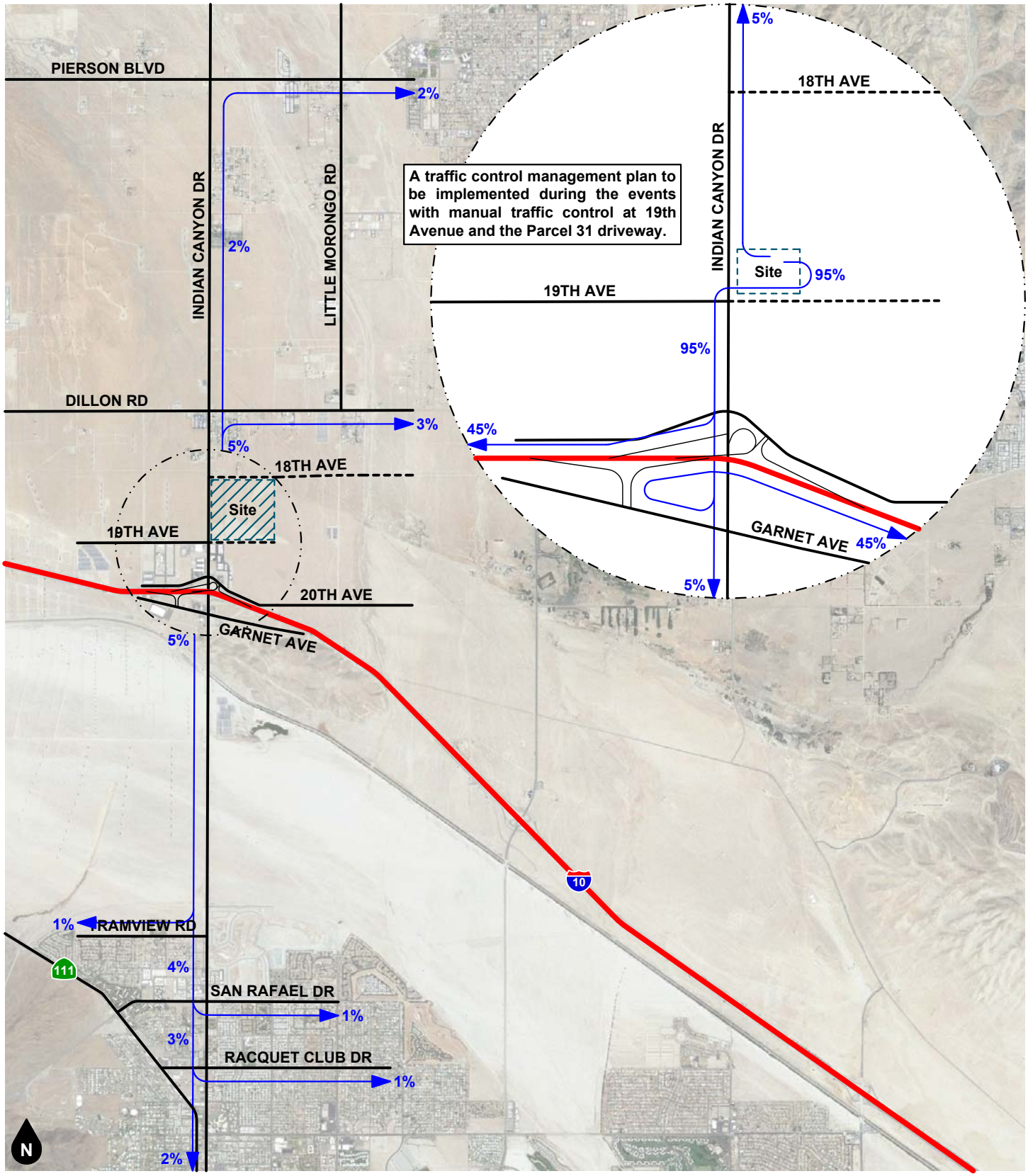
Figure 13
Project Hotel (Parcel 30) Outbound Trip Distribution



Legend

10% Percent To Project

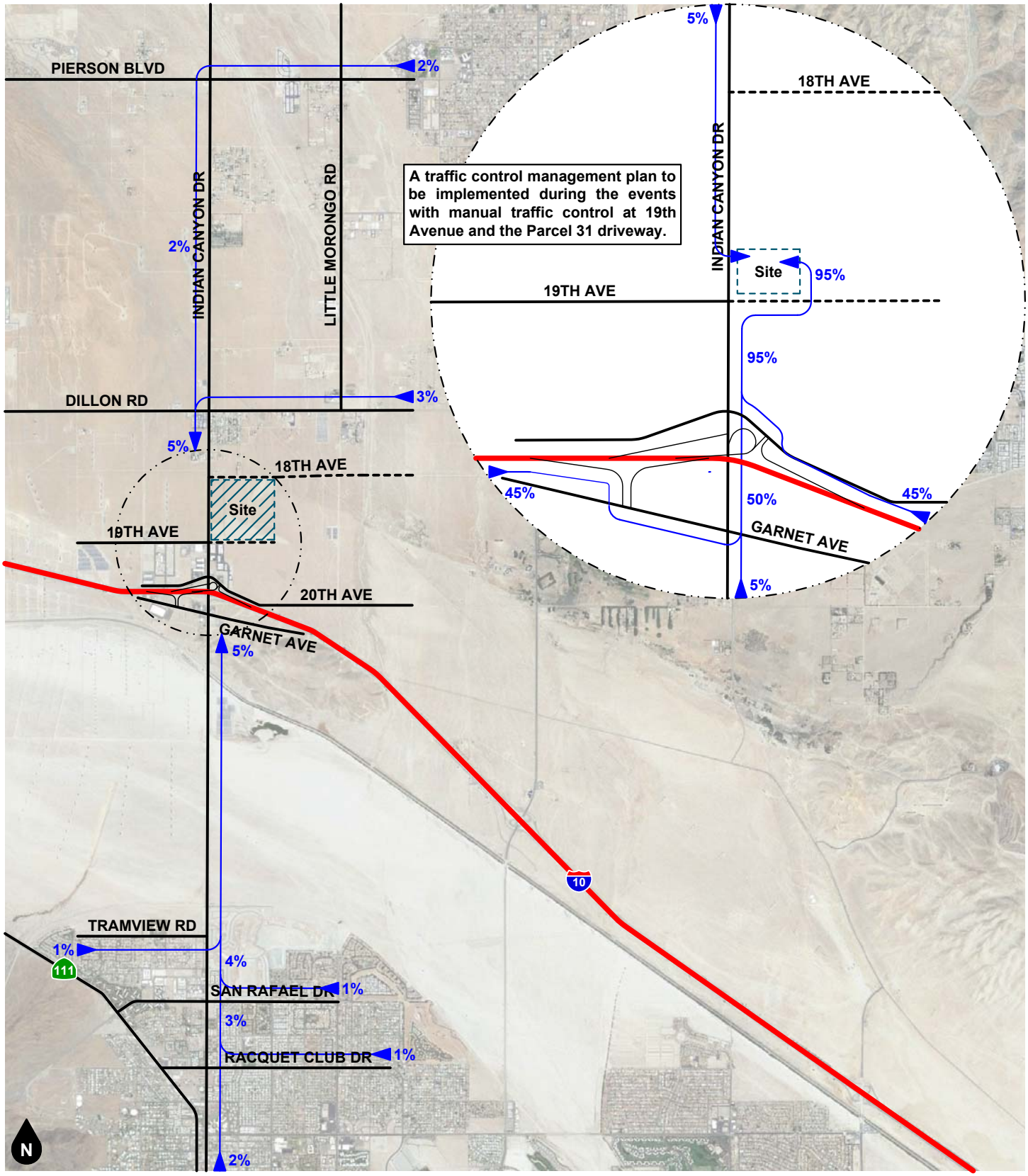
Figure 14
Project Hotel (Parcel 30) Inbound Trip Distribution



Legend

10% Percent From Project

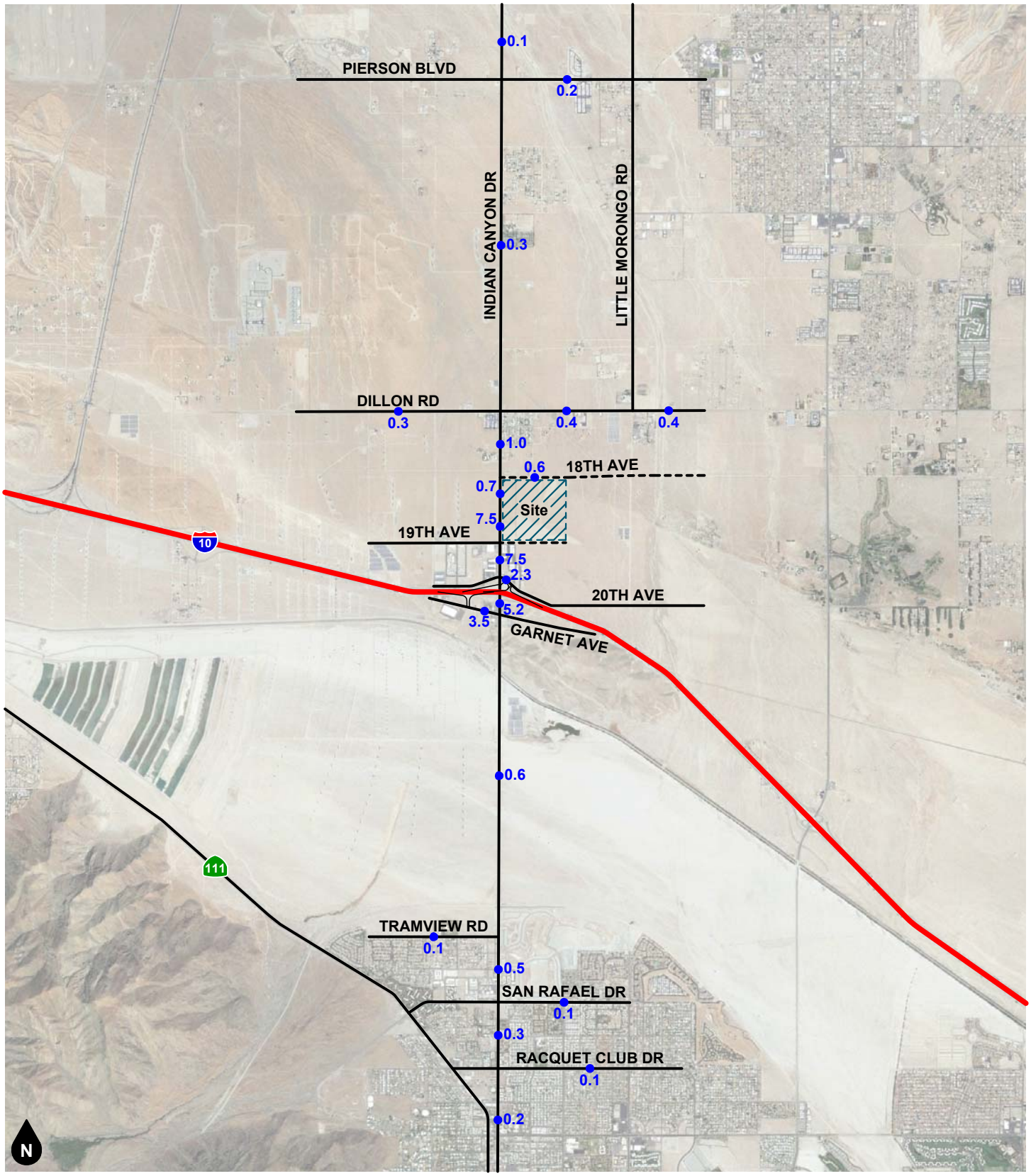
Figure 15
Project Amphitheater (Parcel 31) Outbound Trip Distribution



Legend

10% Percent To Project

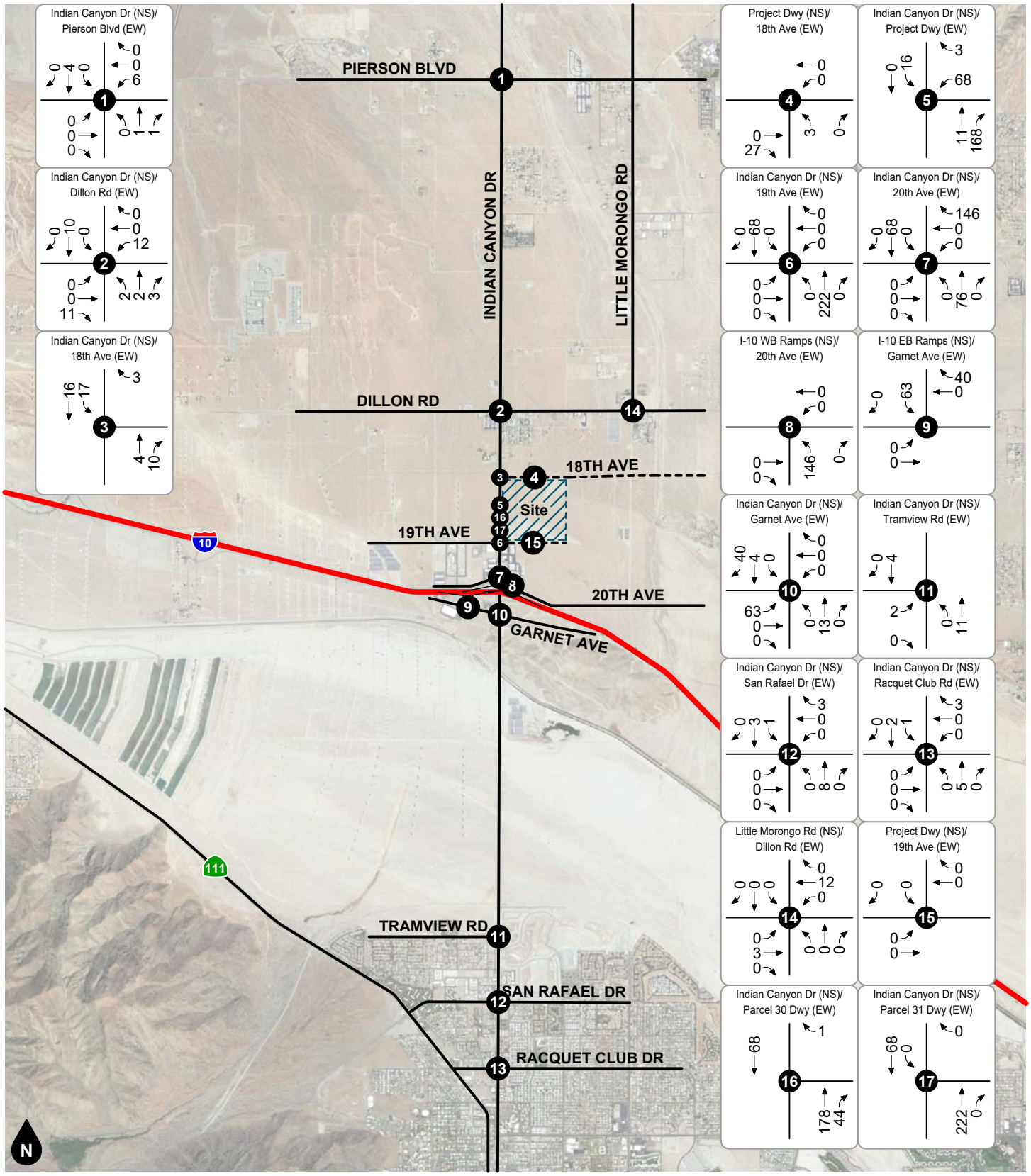
Figure 16
Project Amphitheater (Parcel 31) Inbound Trip Distribution



Legend

●## Vehicles Per Day (1,000's)

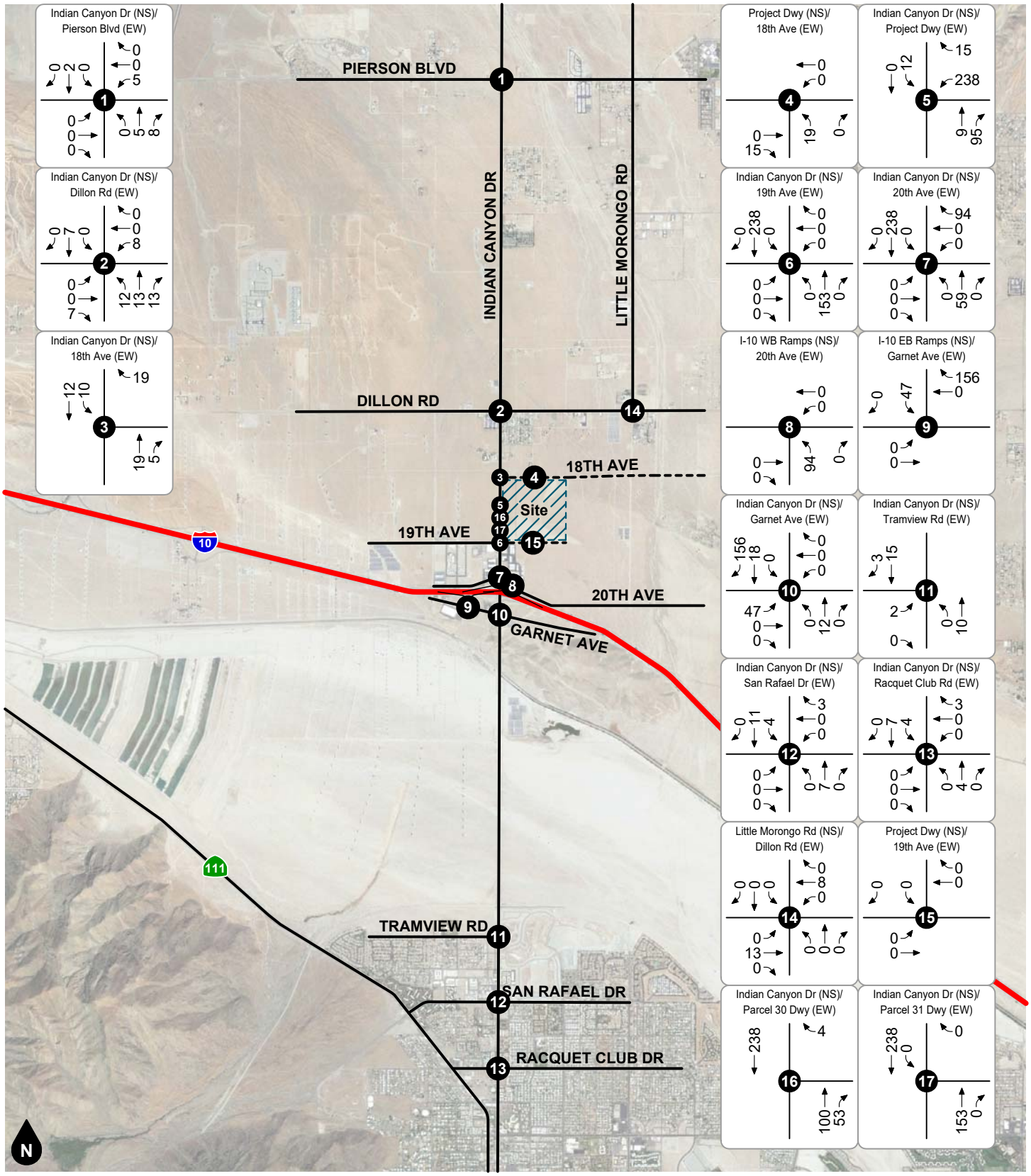
Figure 17
Project Without Amphitheater Event Average Daily Traffic Volumes



Legend

(#) Study Intersection

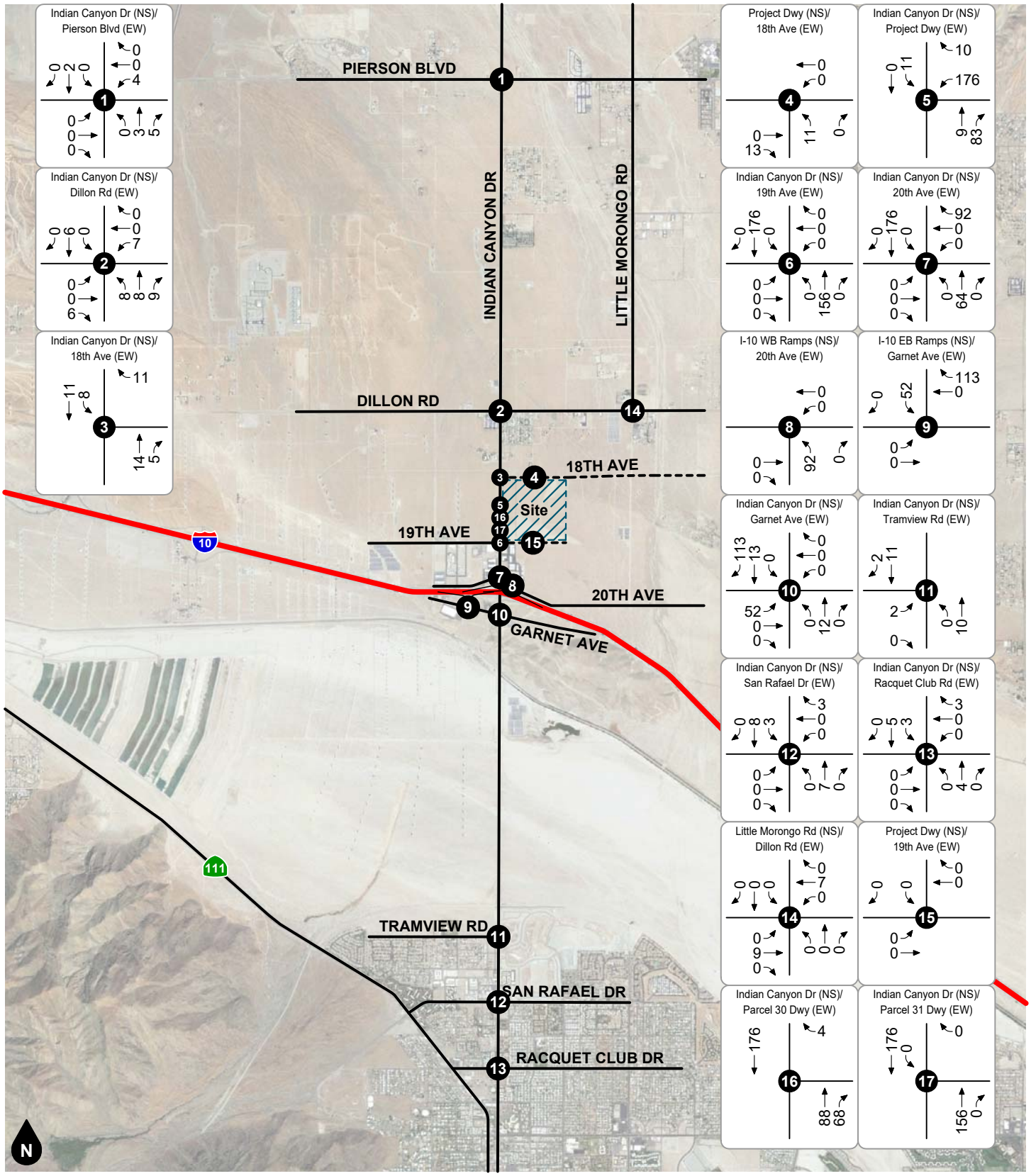
Figure 18
Project Without Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

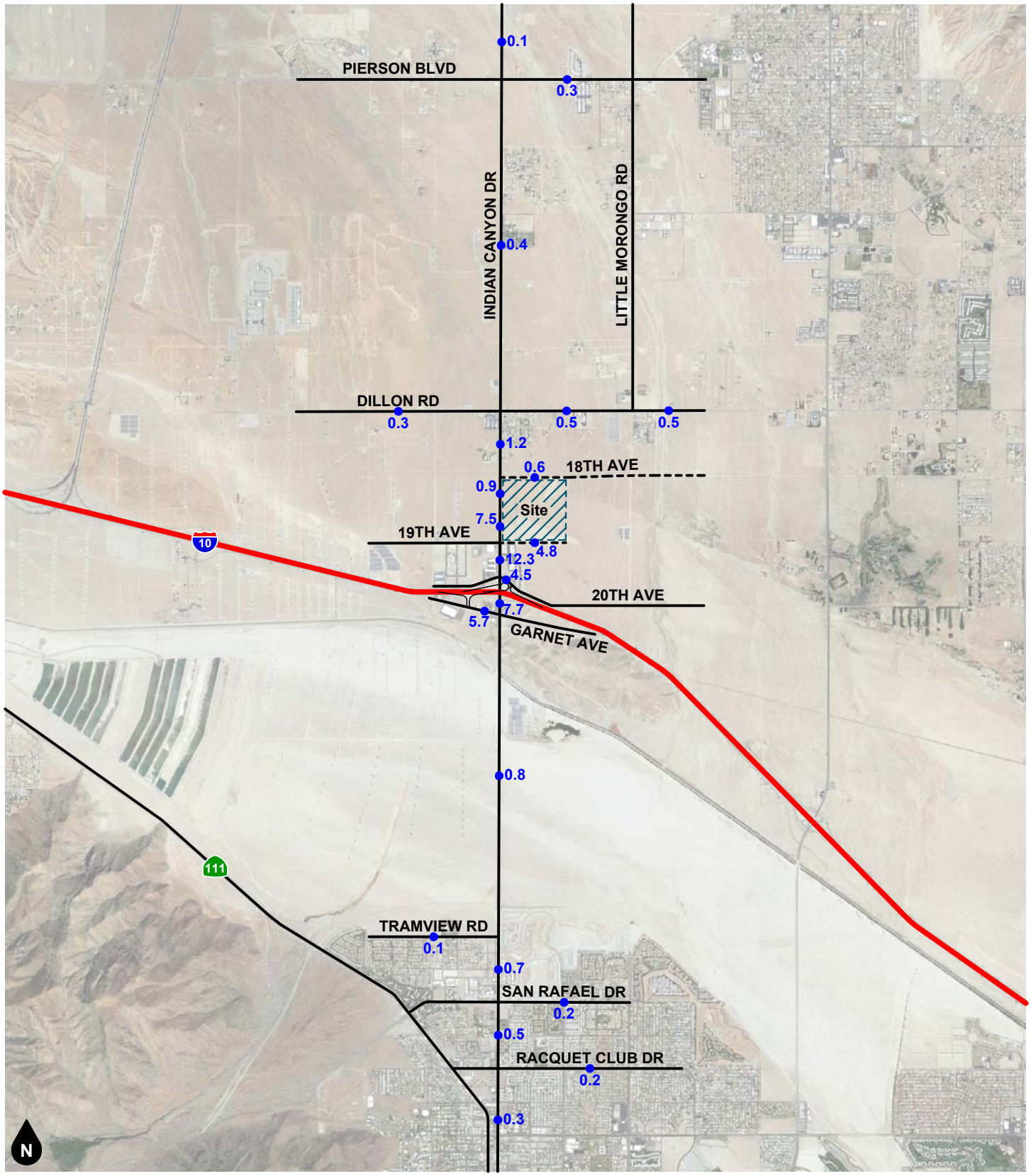
Figure 19
Project Without Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

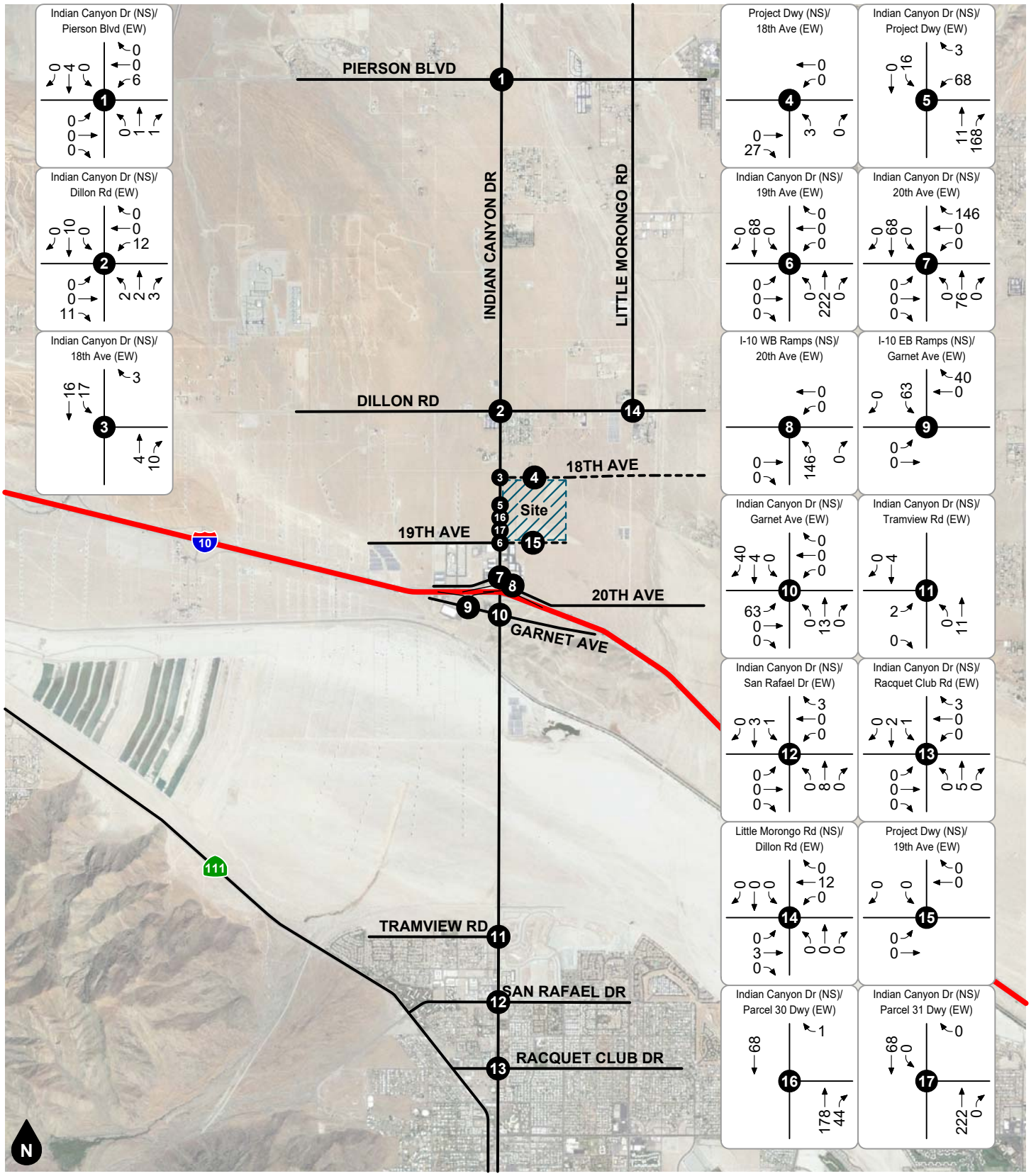
Figure 20
Project Without Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

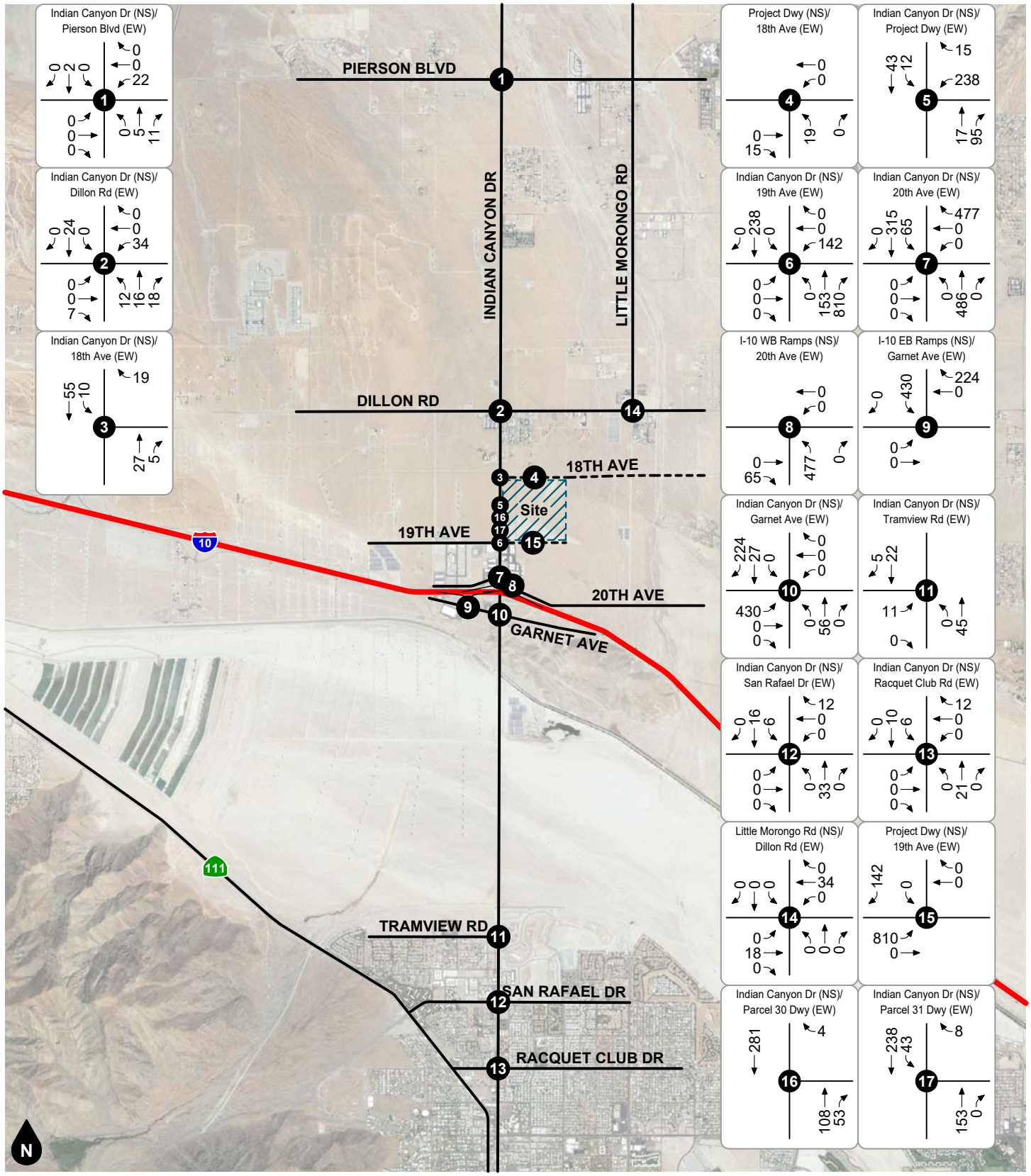
Figure 21
Project With Amphitheater Event Average Daily Traffic Volumes



Legend

(#) Study Intersection

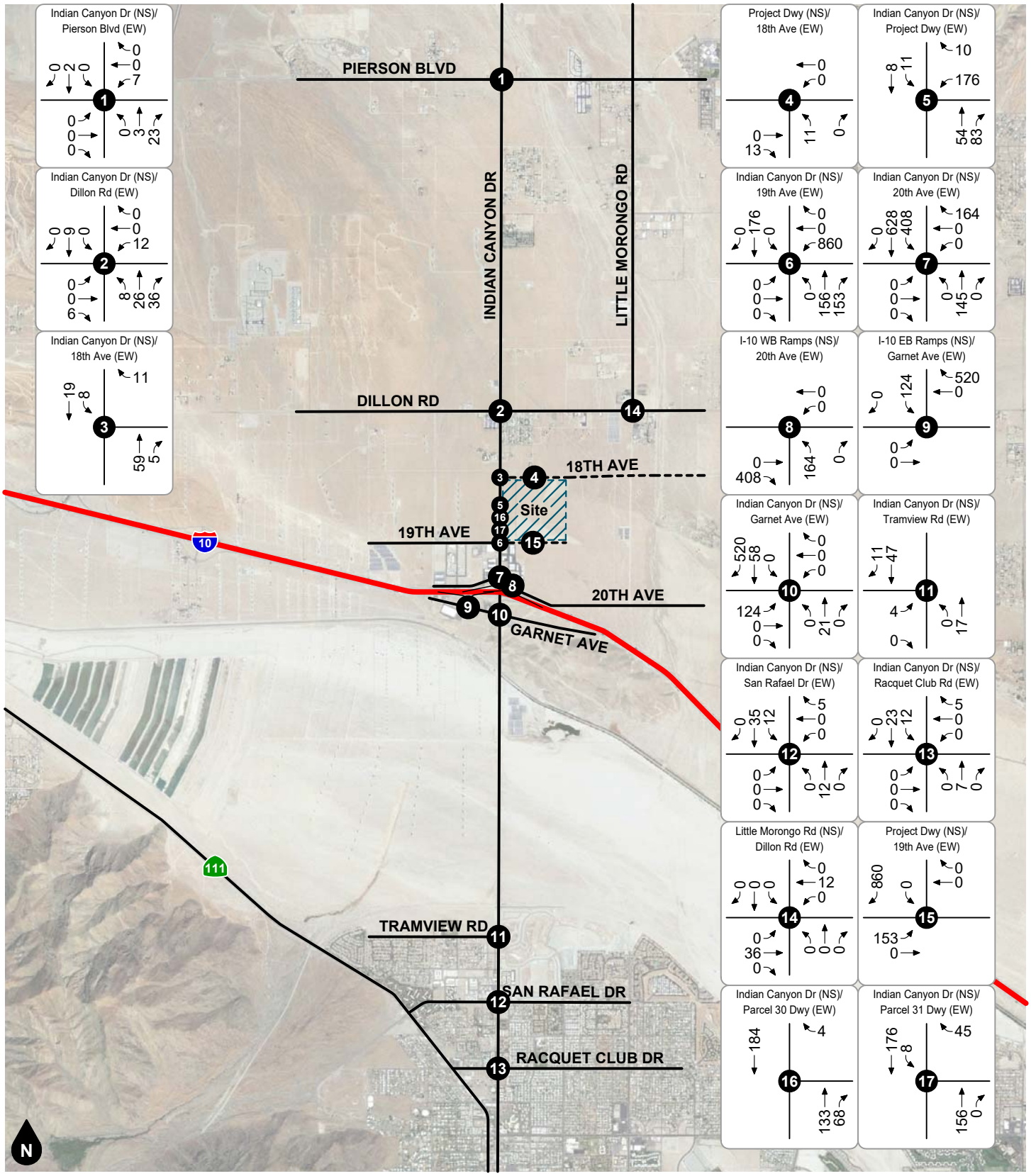
Figure 22
Project With Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 23
Project With Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 24
Project With Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

CUMULATIVE TRIPS

Ambient Growth Rate

To account for ambient growth on roadways, existing 2021 roadway volumes were increased by a growth rate of two percent (2%) per year over two years for Opening Year (2023) conditions. This equates to a total growth of approximately four percent (4%). The ambient growth rate was conservatively applied to all movements at the study intersections.

Other Development

To account for trips generated by future development, trips generated by pending or approved other development projects in the City of Desert Hot Springs were added to the study area. Table 3 shows the trip generation summary for other development projects.

Figure 25 shows the forecast average daily traffic volumes for the other development. Figure 26, Figure 27 and Figure 28 show the forecast weekday AM peak hour, weekday PM peak hour and Saturday mid-day peak hour intersection turning movement volumes for trips generated by other developments.

ANALYSIS SCENARIO VOLUME FORECASTS

Existing Plus Project Without Amphitheater Event

Existing Plus Project Without Amphitheater Event volume forecasts were derived by adding the project generated trips without the Amphitheater Event trips to Existing volumes. Existing Plus Project Without Amphitheater Event average daily traffic volumes are shown on Figure 29. Existing Plus Project Without Amphitheater Event weekday AM peak hour, weekday PM peak and Saturday mid-day peak hour intersection turning movement volumes are shown on Figure 30, Figure 31 and Figure 32.

Existing Plus Project With Amphitheater Event

Existing Plus Project With Amphitheater Event volume forecasts were derived by adding the project generated trips without the Amphitheater Event trips to Existing volumes. Existing Plus Project With Amphitheater Event average daily traffic volumes are shown on Figure 33. Existing Plus Project With Amphitheater Event weekday AM peak hour, weekday PM peak and Saturday mid-day peak hour intersection turning movement volumes are shown on Figure 34, Figure 35 and Figure 36.

Opening Year (2023) Without Project

To develop Opening Year (2023) Without Project volume forecasts, Existing volumes were combined with ambient growth and other development trips. Opening Year (2023) Without Project average daily traffic volumes are shown on Figure 37. Opening Year (2023) Without Project weekday AM peak hour, weekday PM peak and Saturday mid-day peak hour intersection turning movement volumes are shown on Figure 38, Figure 39 and Figure 40.

Opening Year (2023) With Project Without Amphitheater Event

To develop Opening Year (2023) With Project Without Amphitheater Event volume forecasts were developed by adding trips by the project without Amphitheater Event to the Opening Year (2023) Without Project volumes. Opening Year (2023) With Project Without Amphitheater Event average daily traffic volumes are shown on Figure 41. Opening Year (2023) With Project Without Amphitheater Event weekday AM peak hour, weekday PM peak and Saturday mid-day peak hour intersection turning movement volumes are shown on Figure 42, Figure 43 and Figure 44.

Opening Year (2023) With Project With Amphitheater Event

To develop Opening Year (2023) With Project With Amphitheater Event volume forecasts were developed by adding trips by the project with Amphitheater Event to the Opening Year (2023) Without Project volumes. Opening Year (2023) With Project With Amphitheater Event average daily traffic volumes are shown on Figure 45. Opening Year (2023) With Project With Amphitheater Event weekday AM peak hour, weekday PM peak and Saturday mid-day peak hour intersection turning movement volumes are shown on Figure 46, Figure 47 and Figure 48.

FUTURE TRAFFIC SIGNAL WARRANT ANALYSIS

The need for traffic control signals at the unsignalized study intersections have been evaluated using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (2014 Update). Traffic signal warrant analysis worksheets are provided in Appendix E.

Existing Plus Project Without Amphitheater Event

Traffic signal warrants are satisfied at the following additional study intersection for Existing Plus Project Without Amphitheater Event conditions, in addition to those already satisfy the warrants for Existing conditions:

- Indian Canyon Drive/Project Driveway – #5

Table 3 (1 of 2)

Other Development Trip Generation

ID	Project Name	Quantity	Units[1]	Trips Generated										
					AM Peak Hour			PM Peak Hour			Saturday Peak Hour			
				Source[2]	In	Out	Total	In	Out	Total	In	Out	Total	Daily
	Trip Generation Rates													
	Cultivation Facility	1.000	TSF	ITE 150	0.23	0.07	0.30	0.05	0.04	0.19	0.64	0.36	0.05	1.74
	Hotel	1.000	Rooms	ITE 310	0.28	0.19	0.47	0.31	0.29	0.60	0.56	0.44	0.72	8.36
	Supermarket	1	TSF	ITE 850	2.29	1.53	3.82	4.71	4.53	9.24	0.51	0.49	10.34	106.78
	Trips Generated													
1	CUP 02-15 & DA 06-15	180.900	TSF	ITE 150	42	12	54	9	25	34	6	3	9	116
2	CUP 03-15 & DA 04-15	1001.000	TSF	ITE 150	231	69	300	51	139	190	32	18	50	641
3	CUP 04-15 & DA 02-15	381.053	TSF	ITE 150	88	26	114	20	52	72	12	7	19	244
4	CUP 06-15 & DA 05-15	23.250	TSF	ITE 150	5	2	7	1	3	4	1	0	1	15
5	CUP 08-15 & DA 07-15	1.800	TSF	ITE 150	0	1	1	0	0	0	0	0	0	1
6	CUP 09-15 & DA 07-15	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
7	CUP 10-15	40.000	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
8	CUP 01-16 & DA 01-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
9	CUP 02-16	9.600	TSF	ITE 150	2	1	3	0	2	2	0	0	0	6
10	CUP 03-16	5.038	TSF	ITE 150	1	1	2	0	1	1	0	0	0	3
11	CUP 04-16 & DA 02-16	41.000	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
12	CUP 05-16 & DA 08-16	45.360	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
13	CUP 06-16	45.360	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
14	CUP 07-16	23.070	TSF	ITE 150	5	2	7	1	3	4	1	0	1	15
15	CUP 08-16	4.912	TSF	ITE 150	1	0	1	0	1	1	0	0	0	3
16	CUP 09-16	125.000	TSF	ITE 150	29	9	38	6	18	24	4	2	6	80
17	CUP 10-16	62.994	TSF	ITE 150	15	4	19	3	9	12	2	1	3	40
18	CUP 11-16 & DA 04-16	30.550	TSF	ITE 150	7	2	9	2	4	6	1	1	2	20
19	CUP 12-16 & DA 06-16	312.324	TSF	ITE 150	72	22	94	16	43	59	10	6	16	200
20	CUP 13-16	6.600	TSF	ITE 150	2	0	2	0	1	1	0	0	0	4
21	CUP 14-16	45.000	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
22	CUP 15-16	9.864	TSF	ITE 150	2	1	3	1	1	2	0	0	0	6
23	CUP 16-16 & DA 11-16	50.208	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
24	CUP 17-16 DA 12-16	50.208	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
25	CUP 18-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
26	CUP 19-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
27	CUP 20-16/DA	224.435	TSF	ITE 150	52	15	67	12	31	43	7	4	11	144
28	CUP 23-16 & DA 15-16	57.907	TSF	ITE 150	13	4	17	3	8	11	2	1	3	37
29	CUP 25-16	29.193	TSF	ITE 150	7	2	9	1	5	6	1	0	1	19
30	CUP 26-16 & DA 17-16	50.210	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
31	CUP 27-16	36.218	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
32	CUP 28-16	16.288	TSF	ITE 150	4	1	5	1	2	3	1	0	1	10
33	CUP 29-16	69.000	TSF	ITE 150	16	5	21	4	9	13	2	1	3	44
34	CUP 30-16	12.000	TSF	ITE 150	3	1	4	1	1	2	0	1	1	8
35	CUP 01-17	20.664	TSF	ITE 150	5	1	6	1	3	4	1	0	1	13
36	CUP 02-17	621.920	TSF	ITE 150	144	43	187	32	86	118	20	11	31	398

Table 3 (2 of 2)

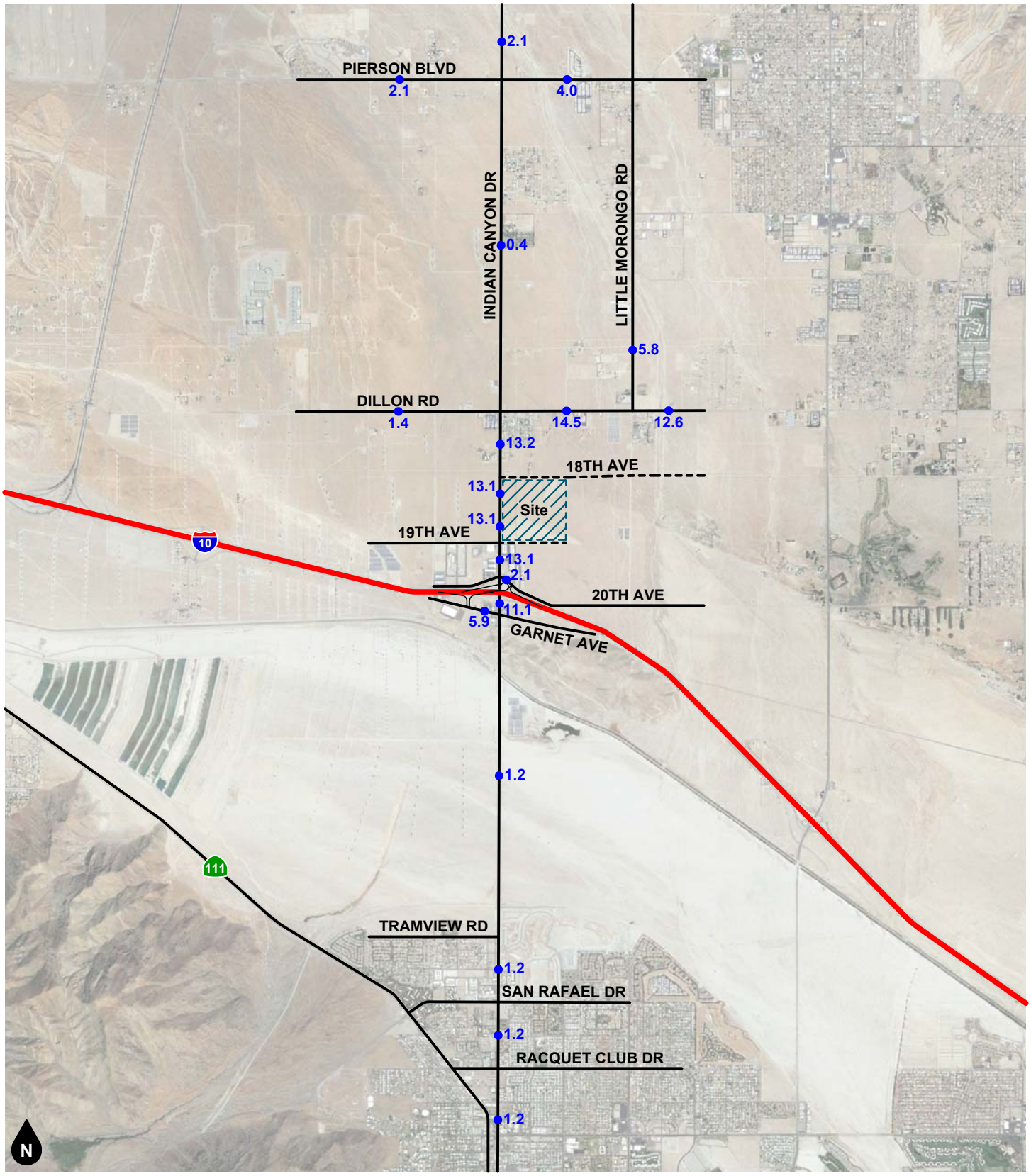
Other Development Trip Generation

ID	Project Name	Quantity	Units[1]	Trips Generated										
				Source[2]	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily
					In	Out	Total	In	Out	Total	In	Out	Total	
37	CUP 03-17	22.000	TSF	ITE 150	5	2	7	1	3	4	1	0	1	14
38	CUP 05-17	35.320	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
39	CUP 06-17	86.700	TSF	ITE 150	20	6	26	4	12	16	3	1	4	55
40	CUP 07-17 & DA 05-17	63.446	TSF	ITE 150	15	4	19	3	9	12	2	1	3	41
41	CUP 08-17 & DA 06-17	50.976	TSF	ITE 150	12	3	15	3	7	10	2	1	3	33
42	CUP 09-17 & DA 07-17	8.389	TSF	ITE 150	2	1	3	0	2	2	0	0	0	5
43	CUP 11-17 DA 09-17	35.435	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
44	CUP 12-17 & DA 10-17	298.576	TSF	ITE 150	69	21	90	15	42	57	10	5	15	191
45	CUP 13-17 & DA 11-17	68.400	TSF	ITE 150	16	5	21	4	9	13	2	1	3	44
46	CUP 15-17	212.000	TSF	ITE 150	49	15	64	11	29	40	7	4	11	136
47	CUP 16-17	123.000	TSF	ITE 150	28	9	37	6	17	23	4	2	6	79
48	CUP 17-17 & DA 07-16	2800.000	TSF	ITE 150	647	193	840	144	388	532	90	50	140	1,792
49	CUP 21-17	6400.000	TSF	ITE 150	1,478	442	1,920	328	888	1,216	205	115	320	4,096
50	CUP 24-17	42.390	TSF	ITE 150	10	3	13	2	6	8	1	1	2	27
51	CUP 25-17	137.030	TSF	ITE 150	32	9	41	7	19	26	4	3	7	88
52	CUP 27-17	39.900	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
53	CUP 28-17	2152.583	TSF	ITE 150	497	149	646	110	299	409	69	39	108	1,378
54	TTM 37185/SP	1897.799	TSF	ITE 150	438	131	569	97	264	361	61	34	95	1,215
55	CUP 30-17	7.400	TSF	ITE 150	2	0	2	0	1	1	0	0	0	5
56	CUP 31-17	54.886	TSF	ITE 150	13	3	16	3	7	10	2	1	3	35
57	CUP 32-17	2720.640	TSF	ITE 150	628	188	816	140	377	517	87	49	136	1,741
58	CUP 33-17	16.671	TSF	ITE 150	4	1	5	1	2	3	1	0	1	11
59	CUP 34-17	1.400	TSF	ITE 150	0	0	0	0	0	0	0	0	0	1
60	CUP 35-17	32.650	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
61	CUP 36-17	22.176	TSF	ITE 150	5	2	7	1	3	4	1	0	1	14
62	CUP 37-17	15.542	TSF	ITE 150	4	1	5	1	2	3	0	1	1	10
63	CUP 38-17	33.200	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
64	CUP 38-17a	33.200	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
65	CUP 02-18	86	Rooms	ITE 310	24	17	40	26	25	52	35	27	62	719
66	CUP 05-18	270.072	TSF	ITE 850	619	413	1,032	1,273	1,223	2,495	1,424	1,369	2,793	28,838
67	CUP 08-18	429.080	TSF	ITE 150	99	30	129	22	60	82	14	7	21	275
68	DHS 109	1284.180	TSF	ITE 130	462	69	531	77	413	490	110	144	254	3,665
Total Other Development Trips Generated					6,097	1,997	8,094	2,485	4,661	7,146	2,260	1,930	4,190	47,060

Notes:

(1) TSF = Thousand Square Feet

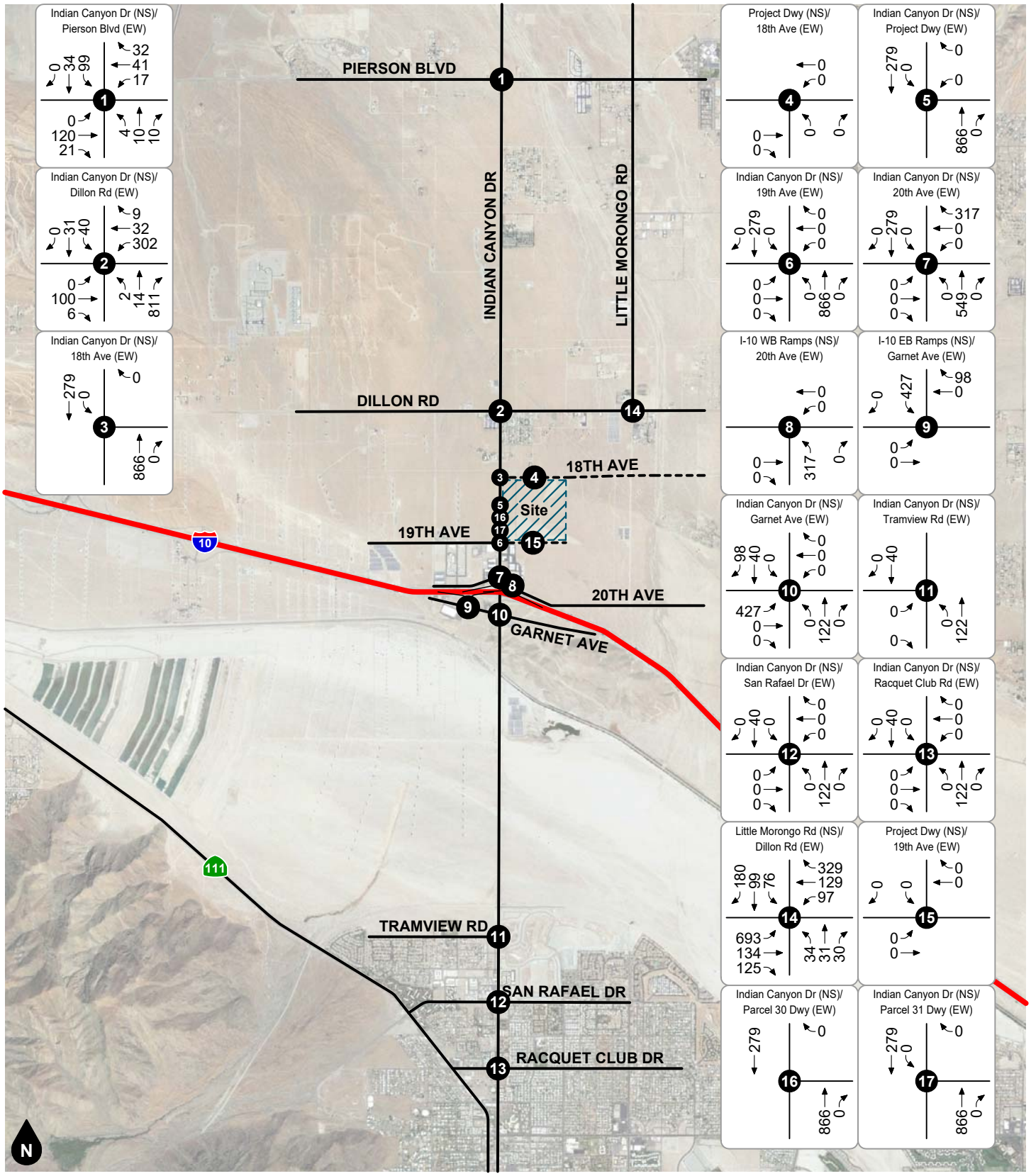
(2) ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code



Legend

●## Vehicles Per Day (1,000's)

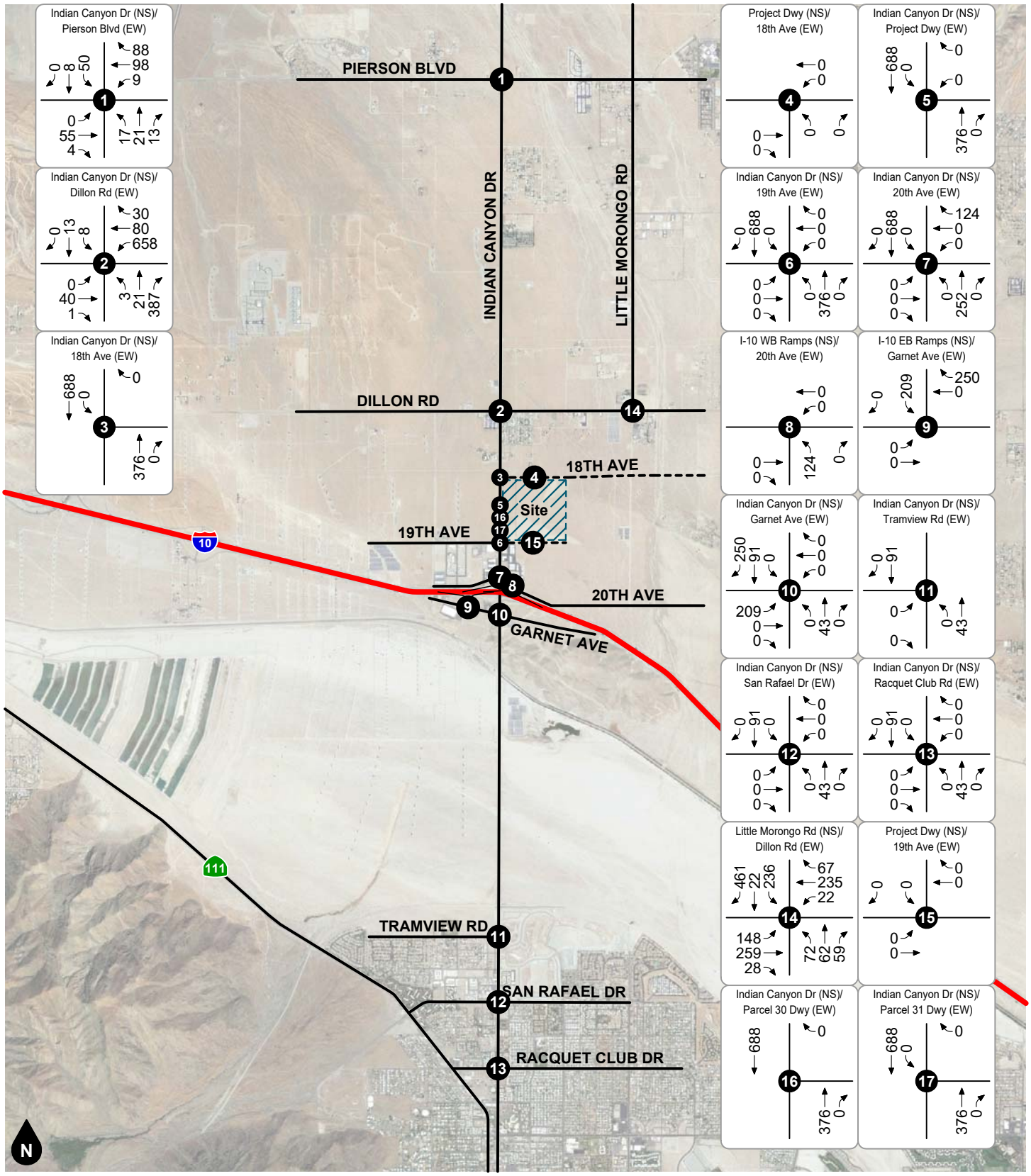
Figure 25
Other Development Average Daily Traffic Volumes



Legend

(#) Study Intersection

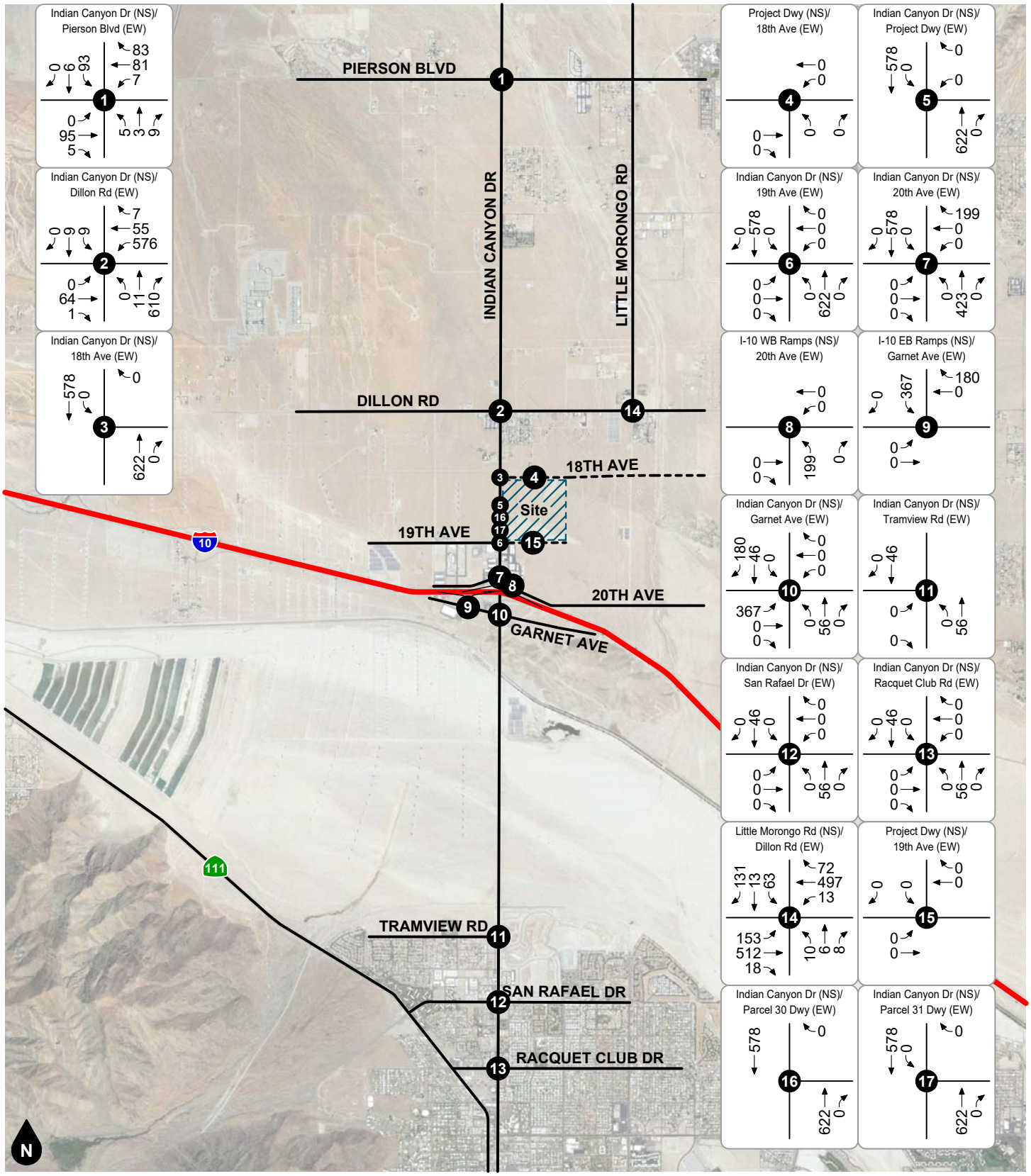
Figure 26
Other Development
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

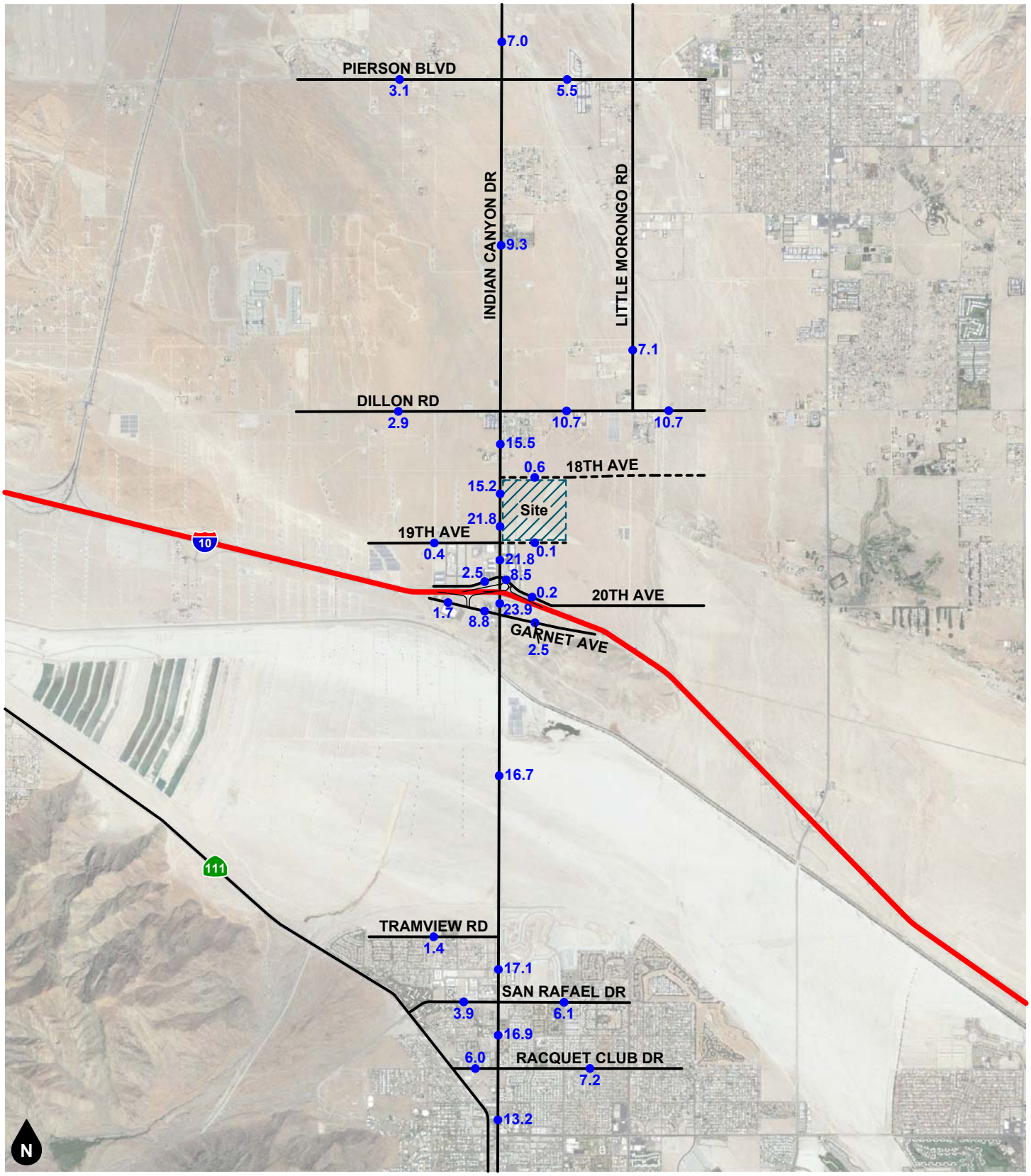
Figure 27
Other Development
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

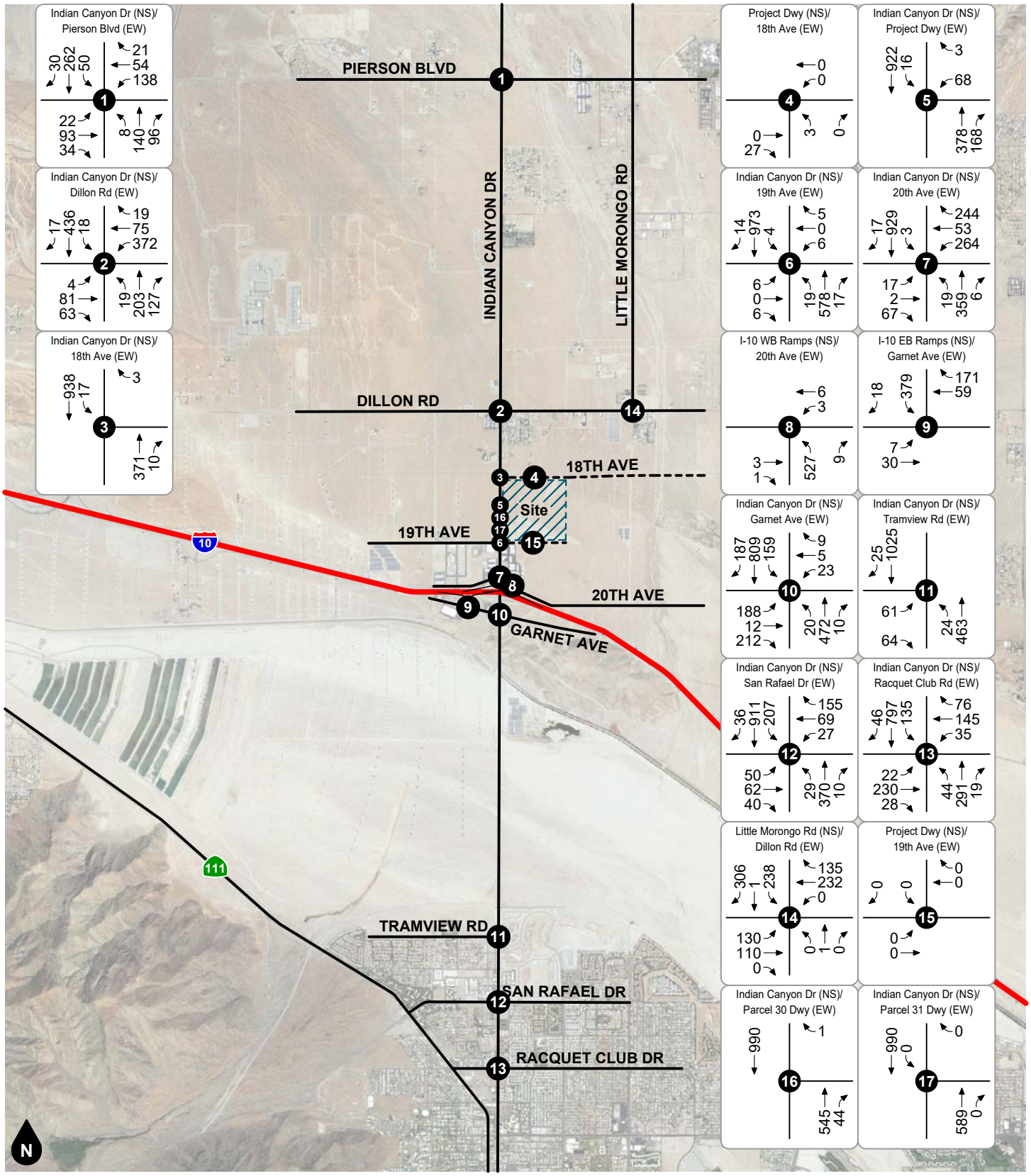
Figure 28
Other Development
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

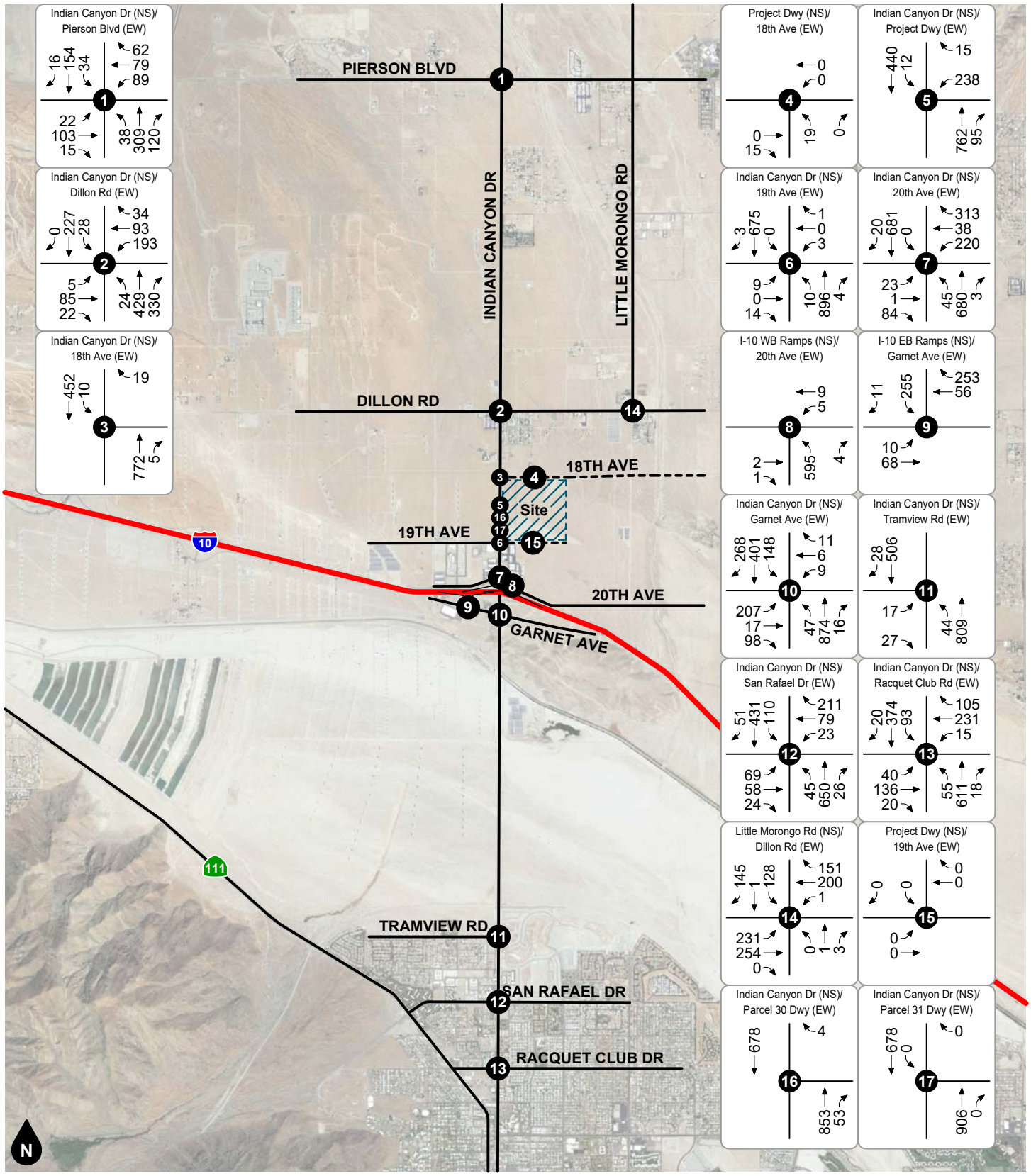
Figure 29
Existing Plus Project Without Amphitheater Event
Average Daily Traffic Volumes



Legend

(#) Study Intersection

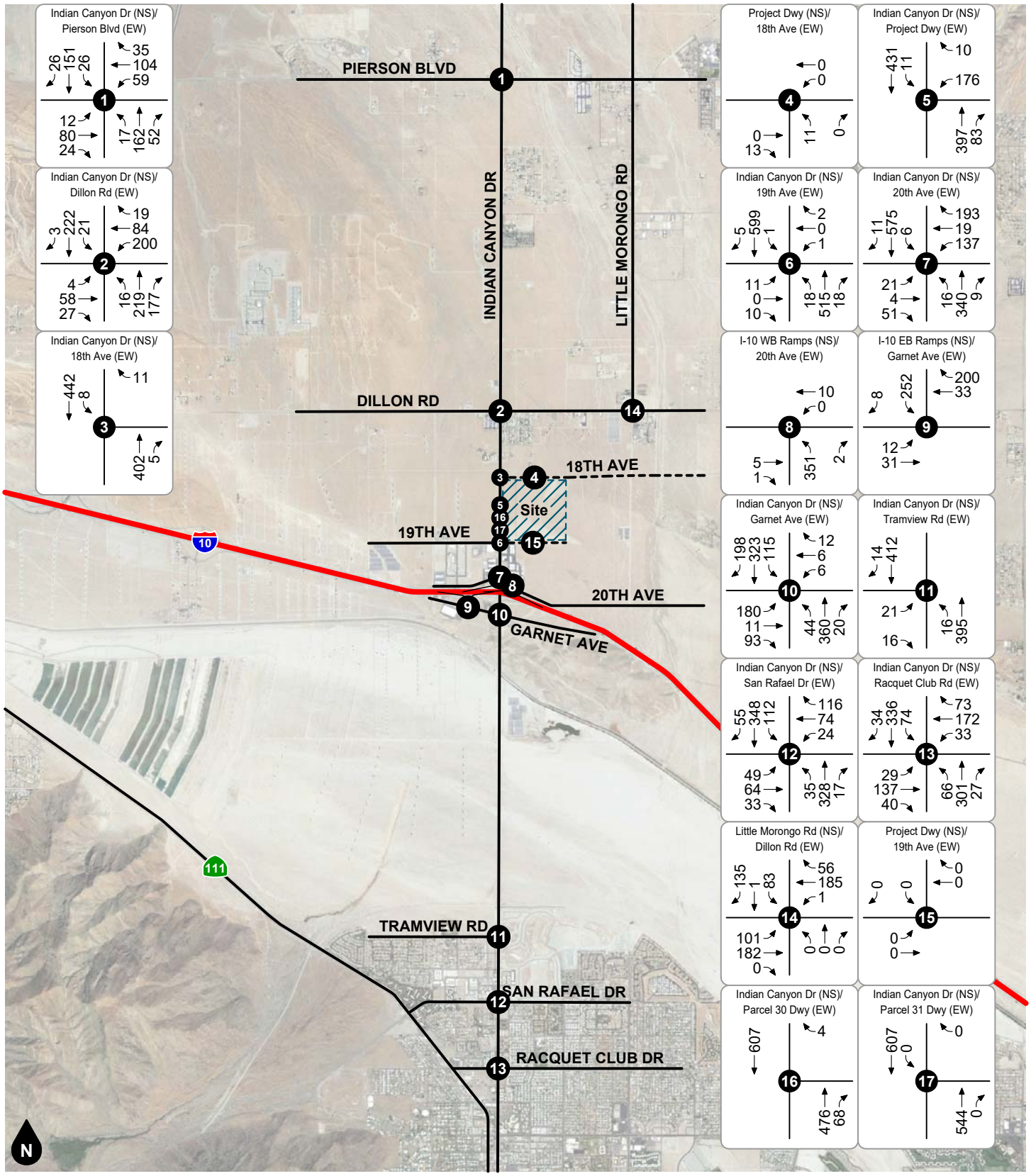
Figure 30
Existing Plus Project Without Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

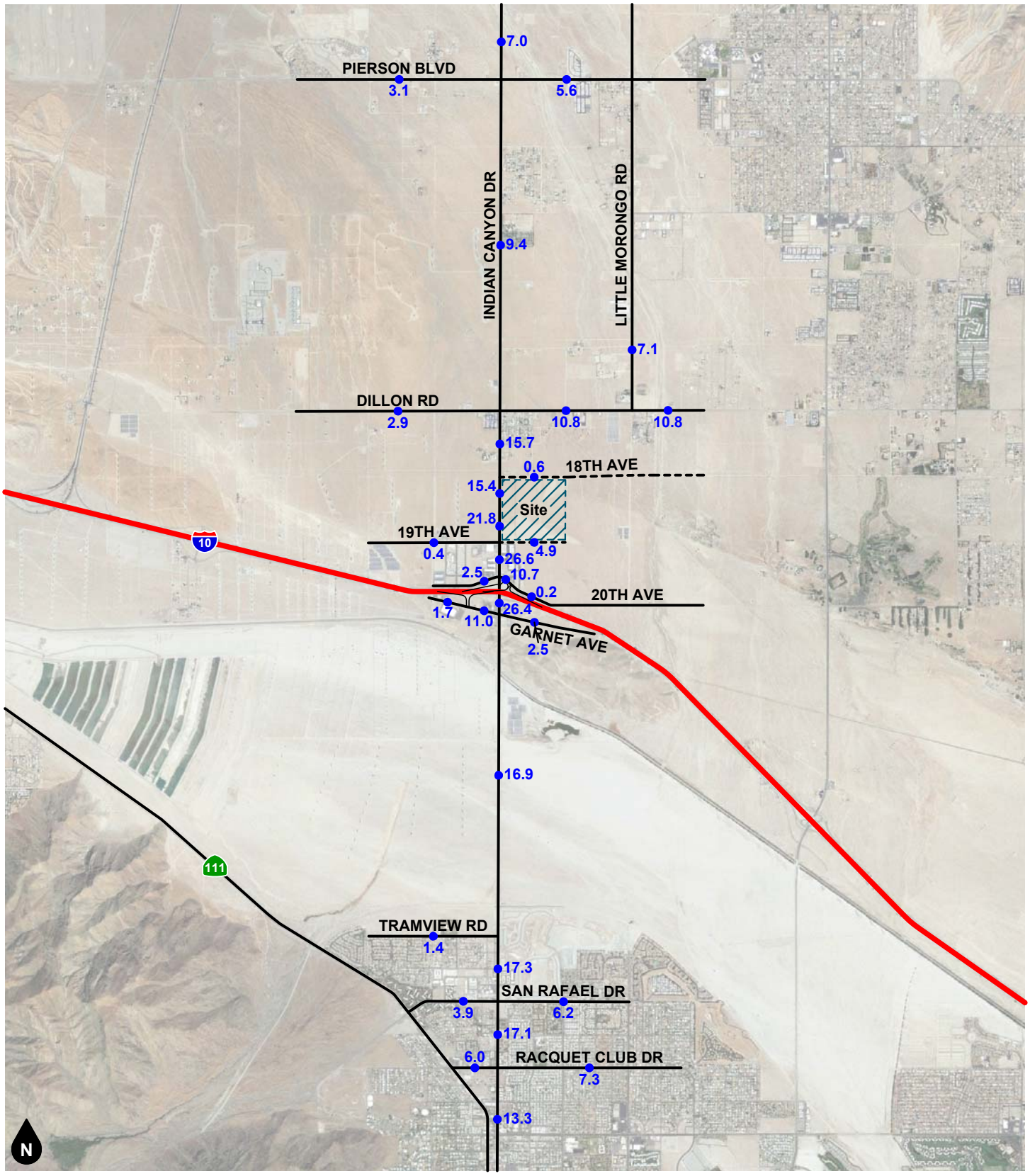
Figure 31
Existing Plus Project Without Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

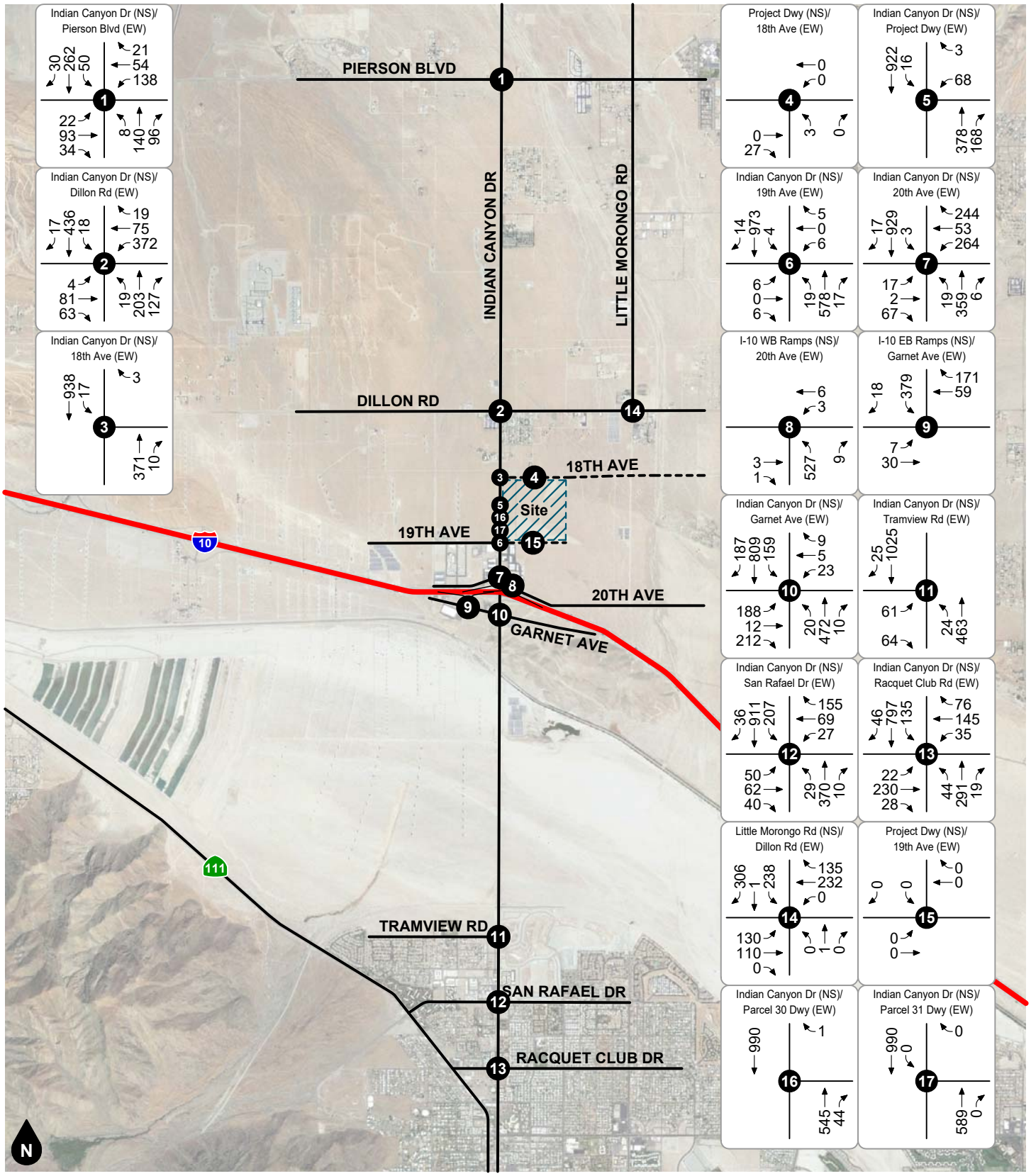
Figure 32
Existing Plus Project Without Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

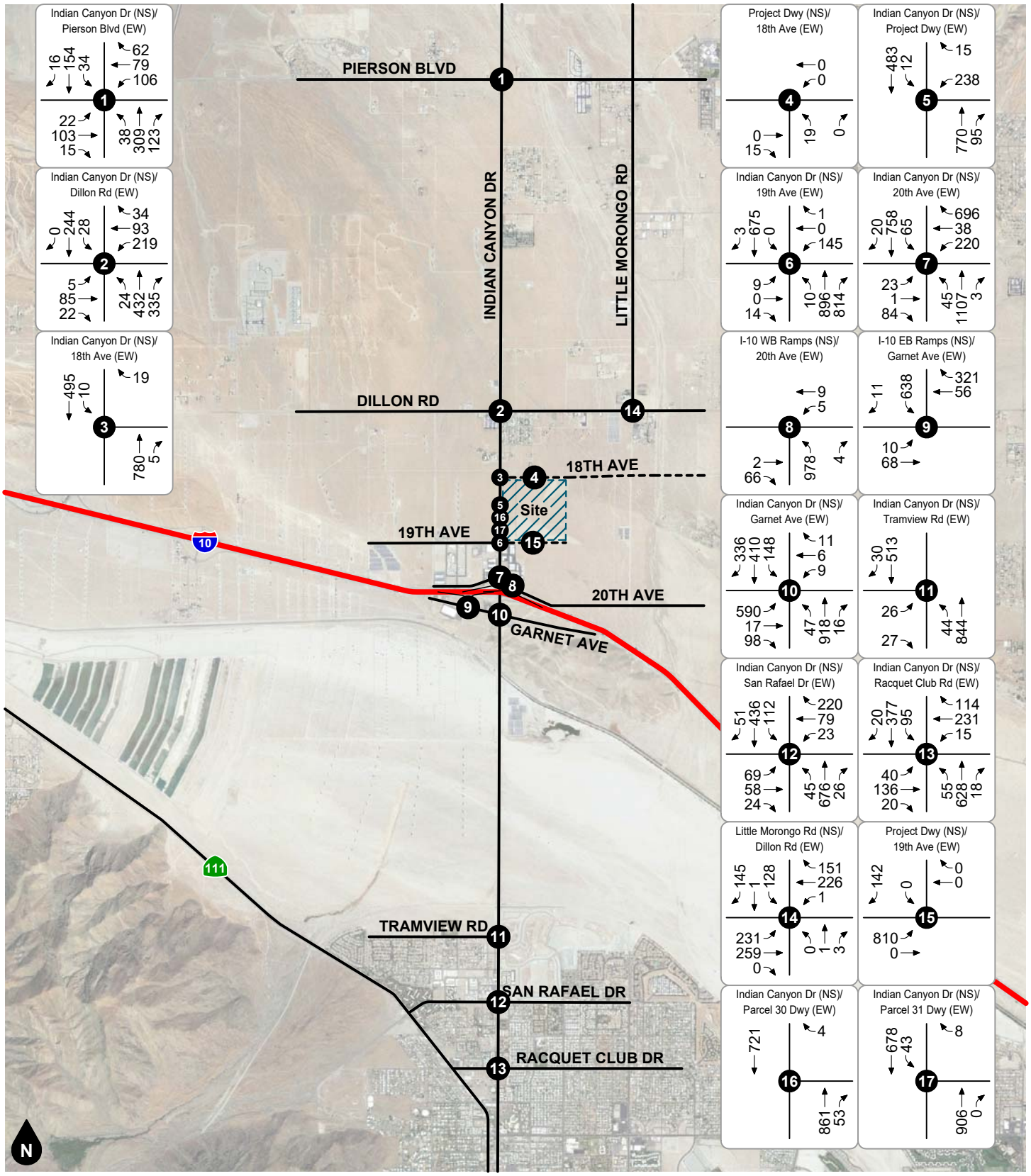
Figure 33
Existing Plus Project With Amphitheater Event
Average Daily Traffic Volumes



Legend

(#) Study Intersection

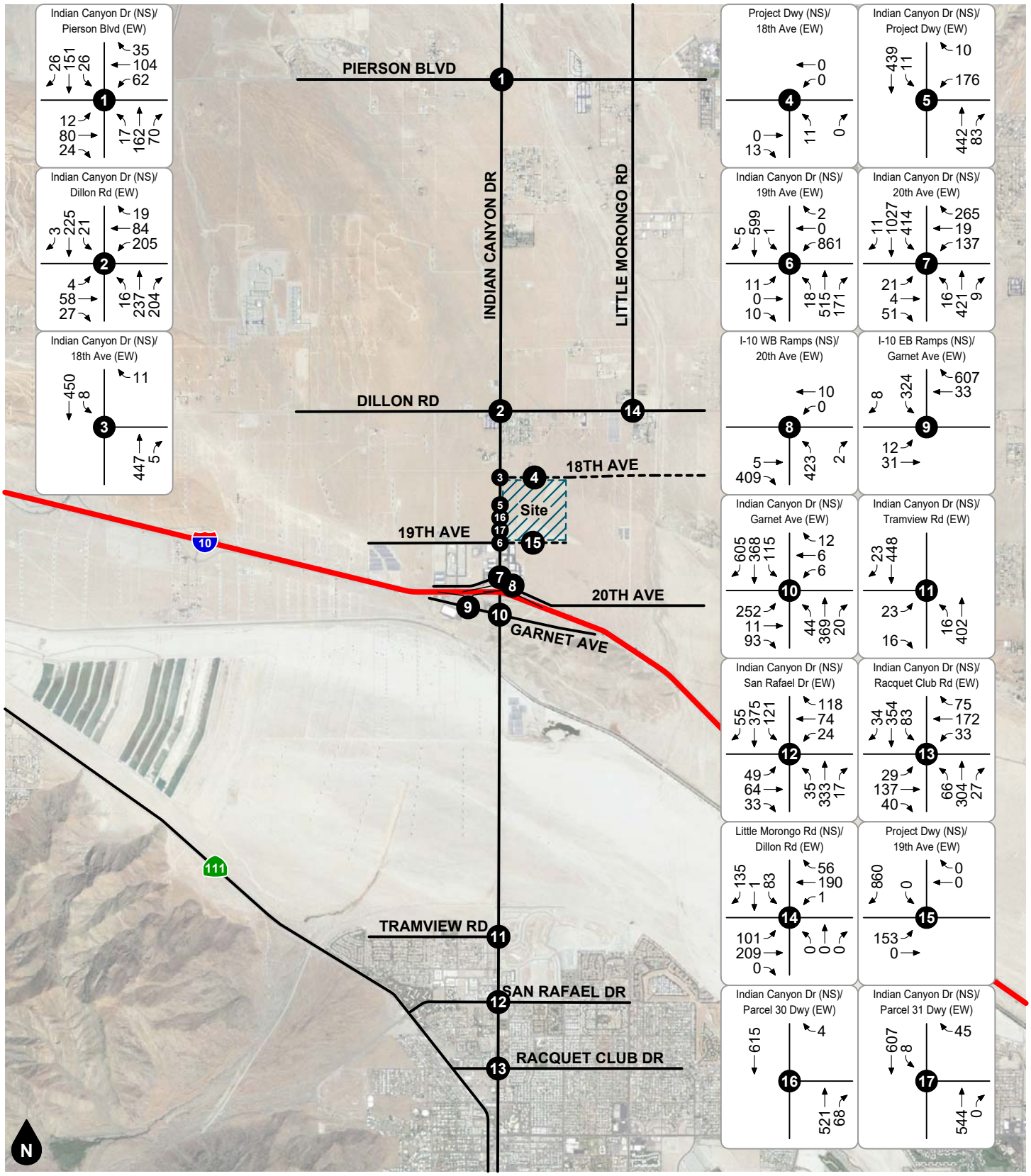
Figure 34
Existing Plus Project With Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

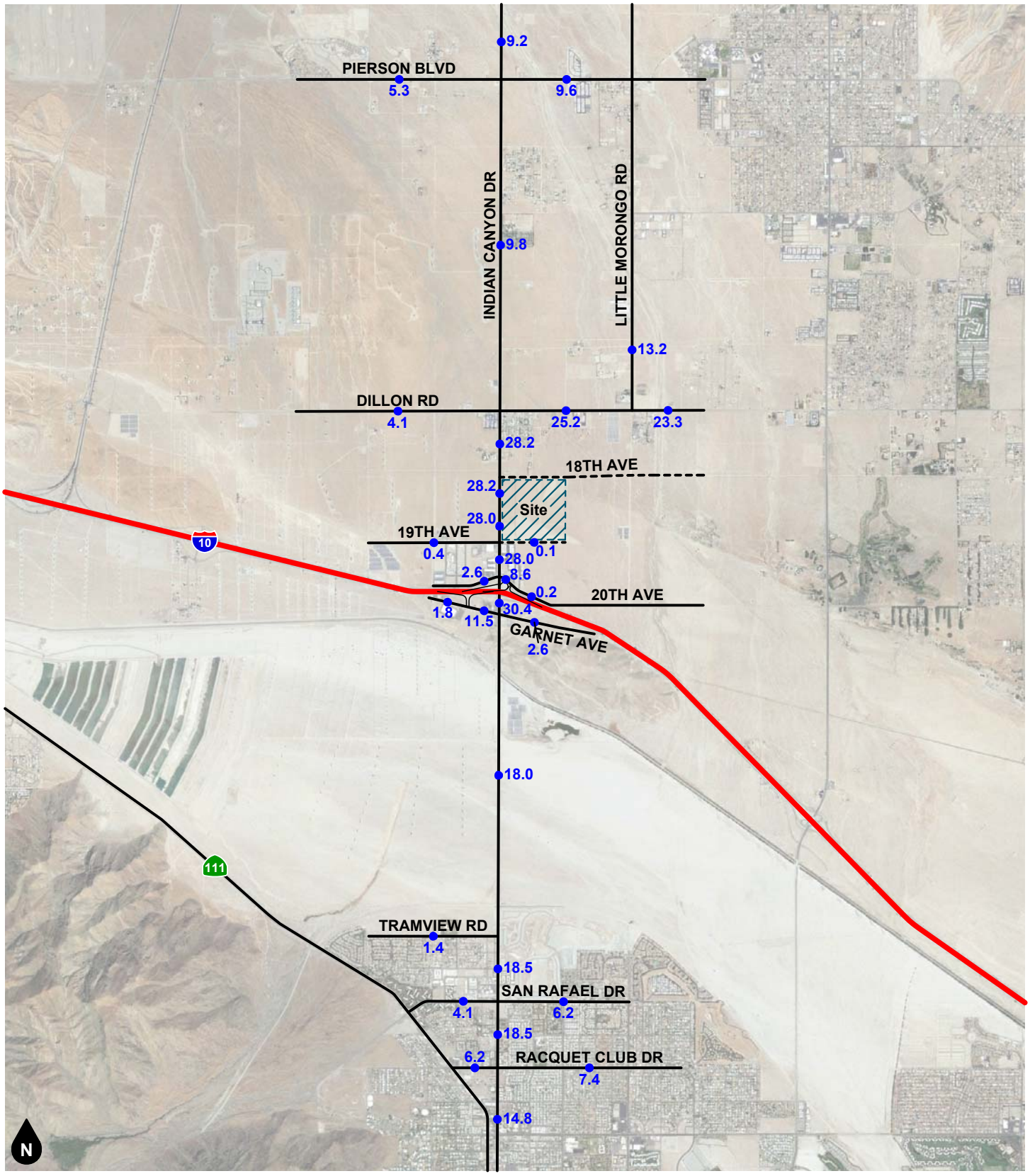
Figure 35
Existing Plus Project With Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

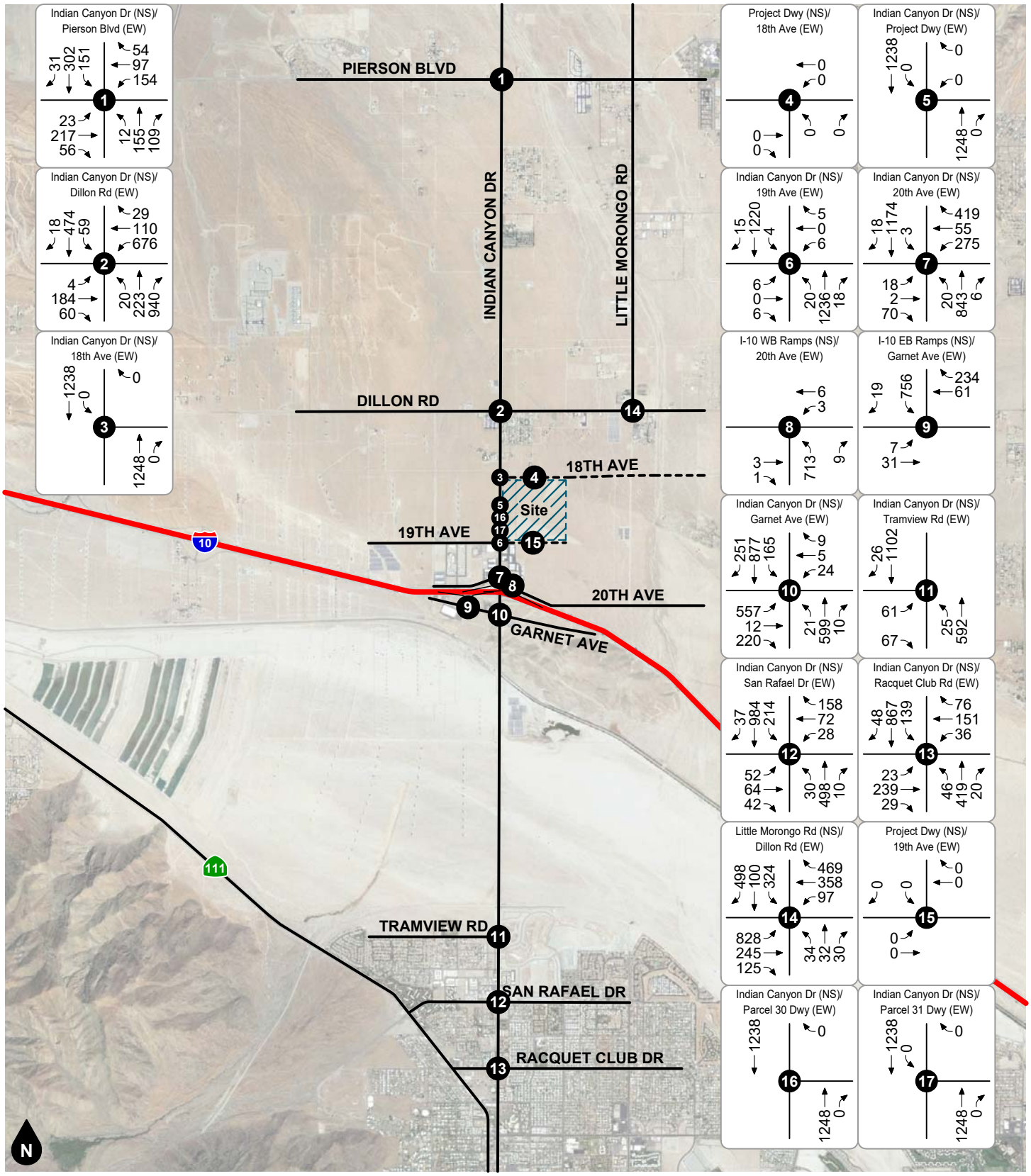
Figure 36
Existing Plus Project With Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

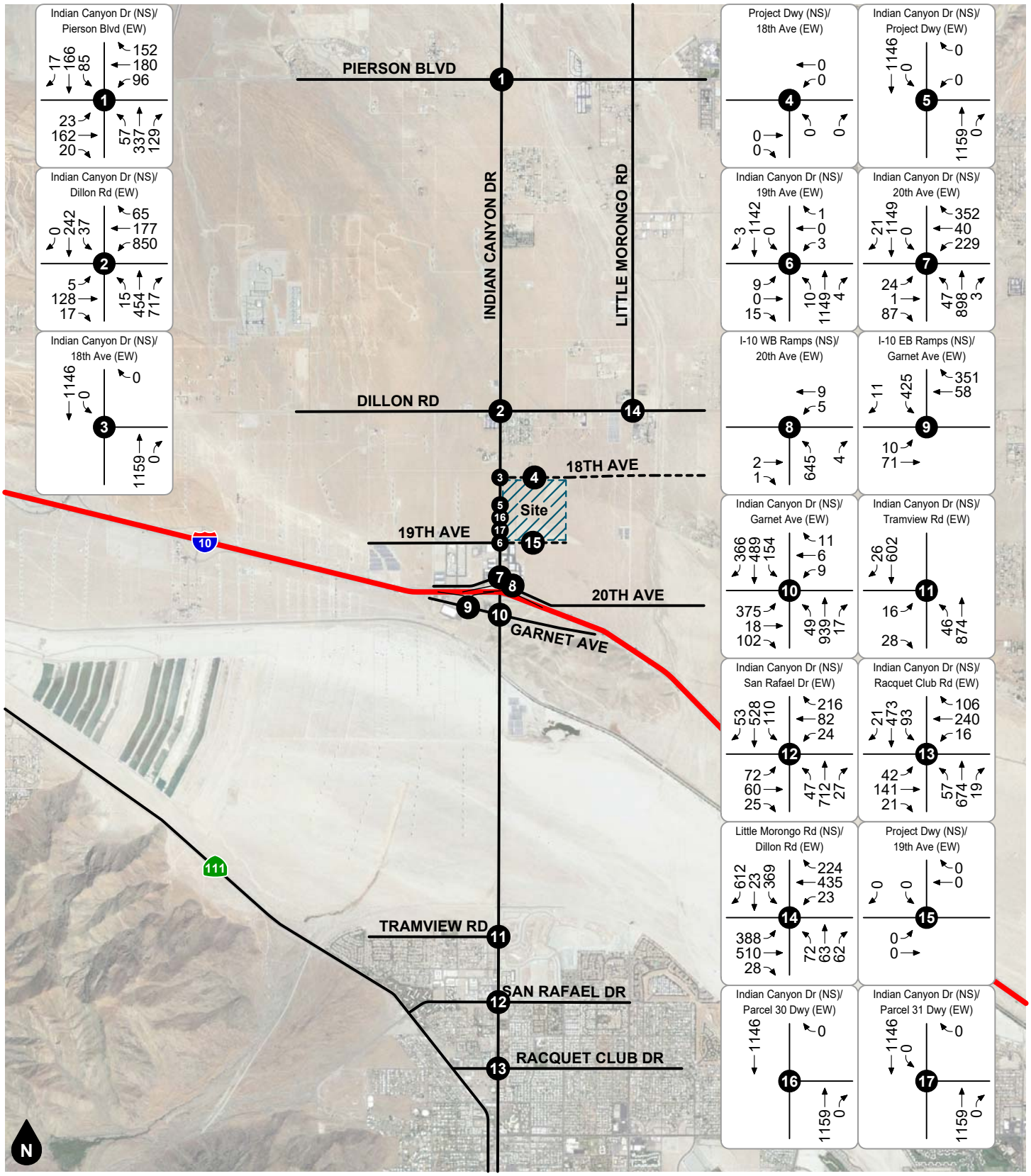
Figure 37
Opening Year (2023) Without Project
Average Daily Traffic Volumes



Legend

(#) Study Intersection

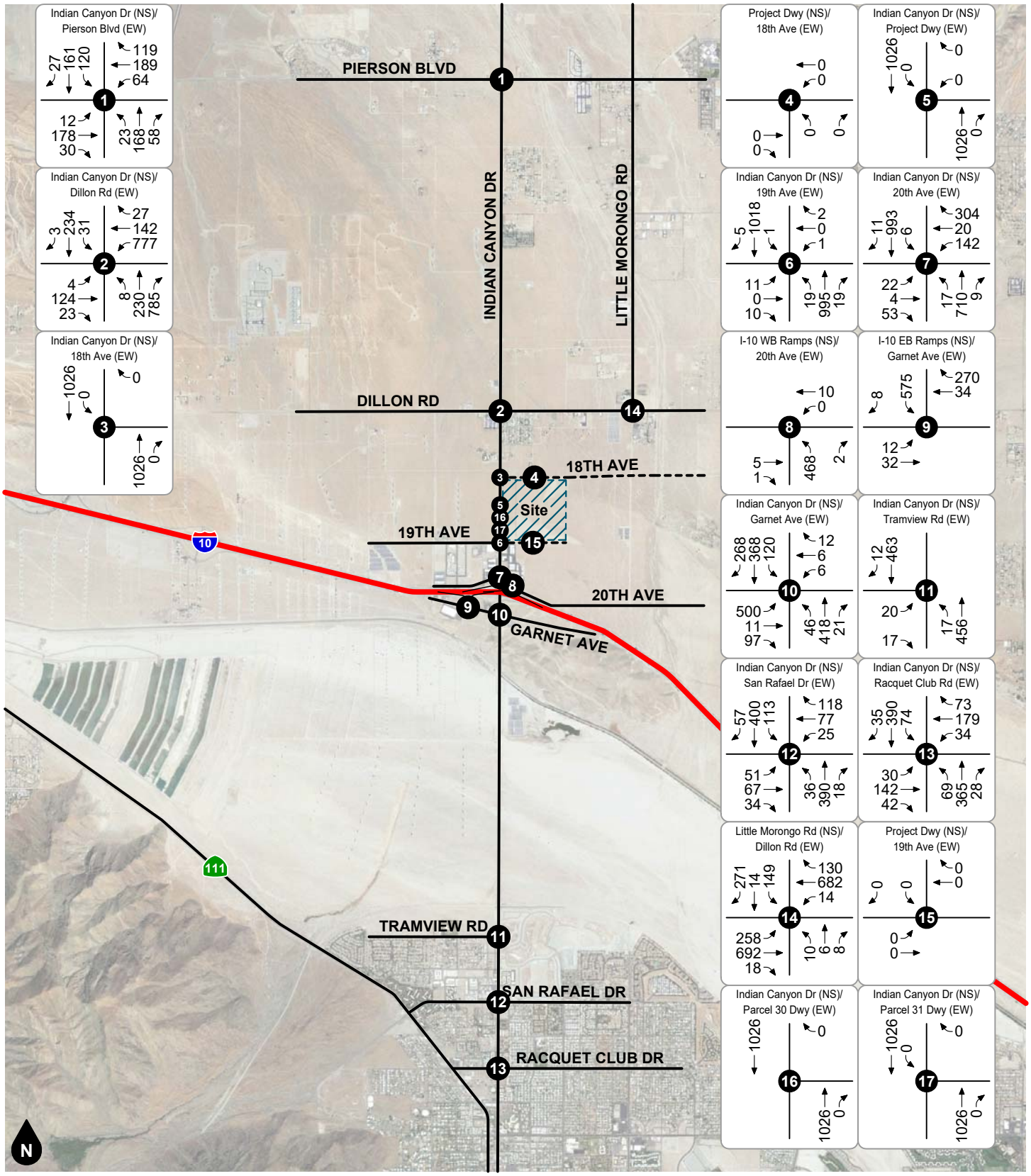
Figure 38
Opening Year (2023) Without Project
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

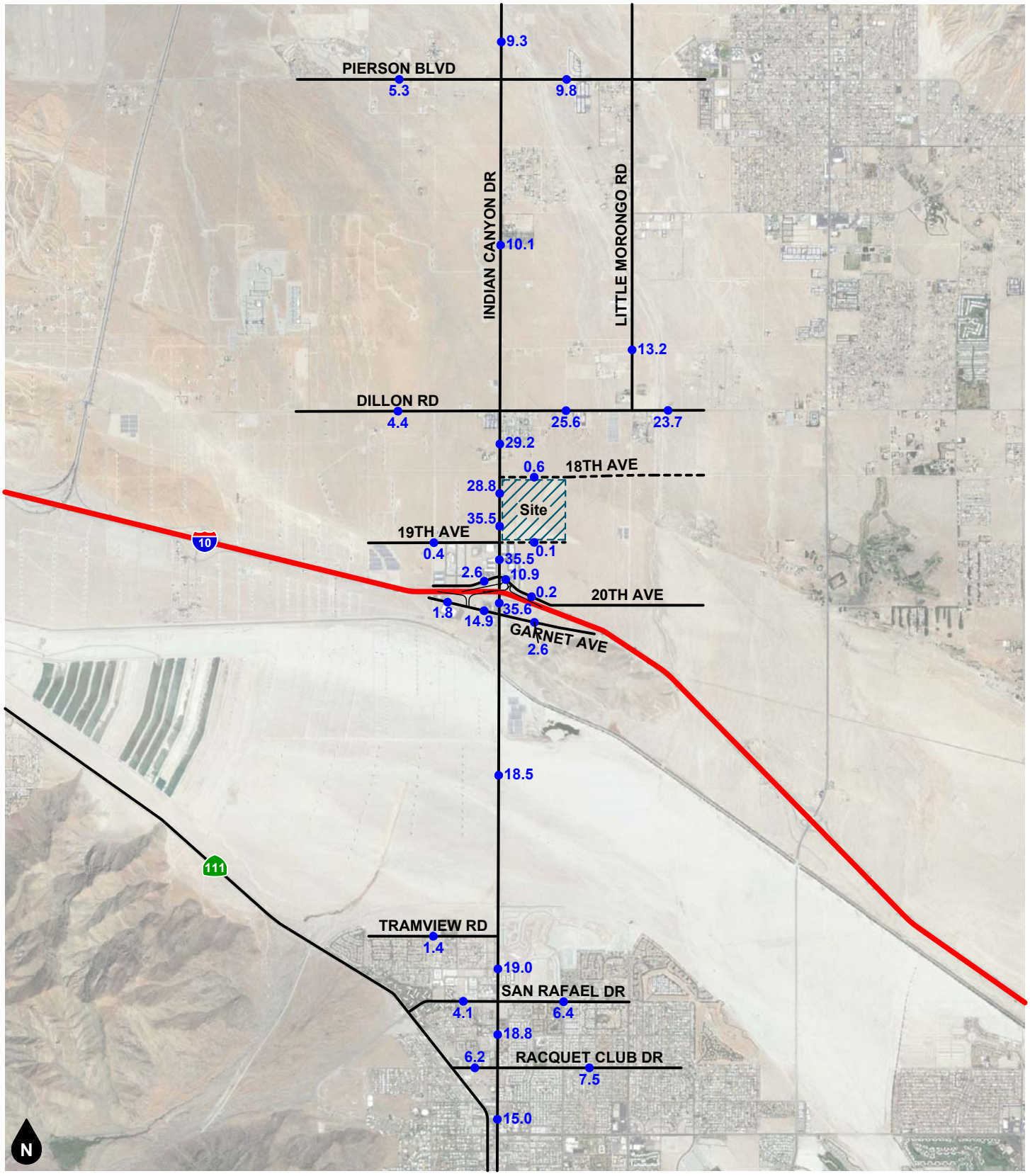
Figure 39
Opening Year (2023) Without Project
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

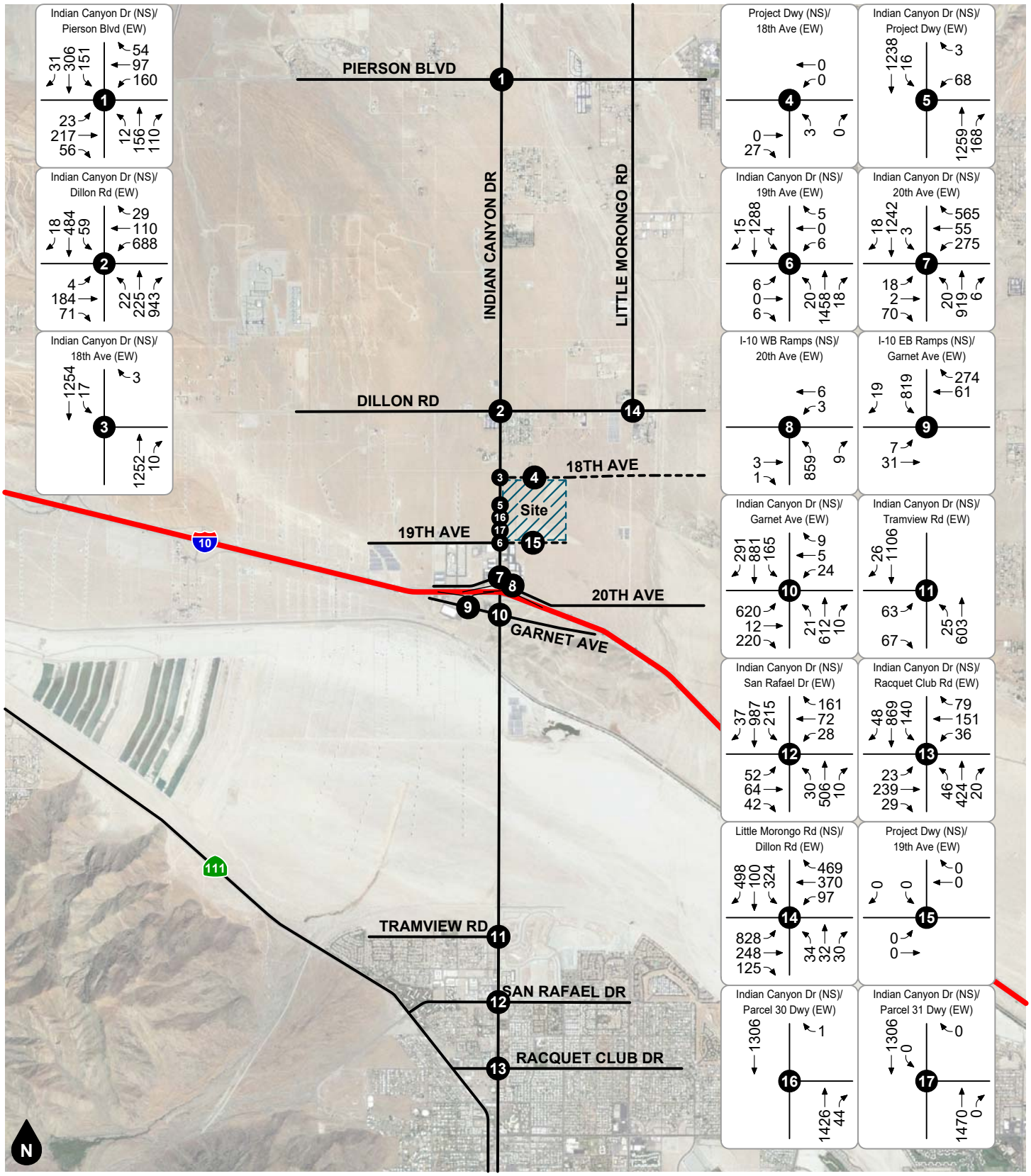
Figure 40
Opening Year (2023) Without Project
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

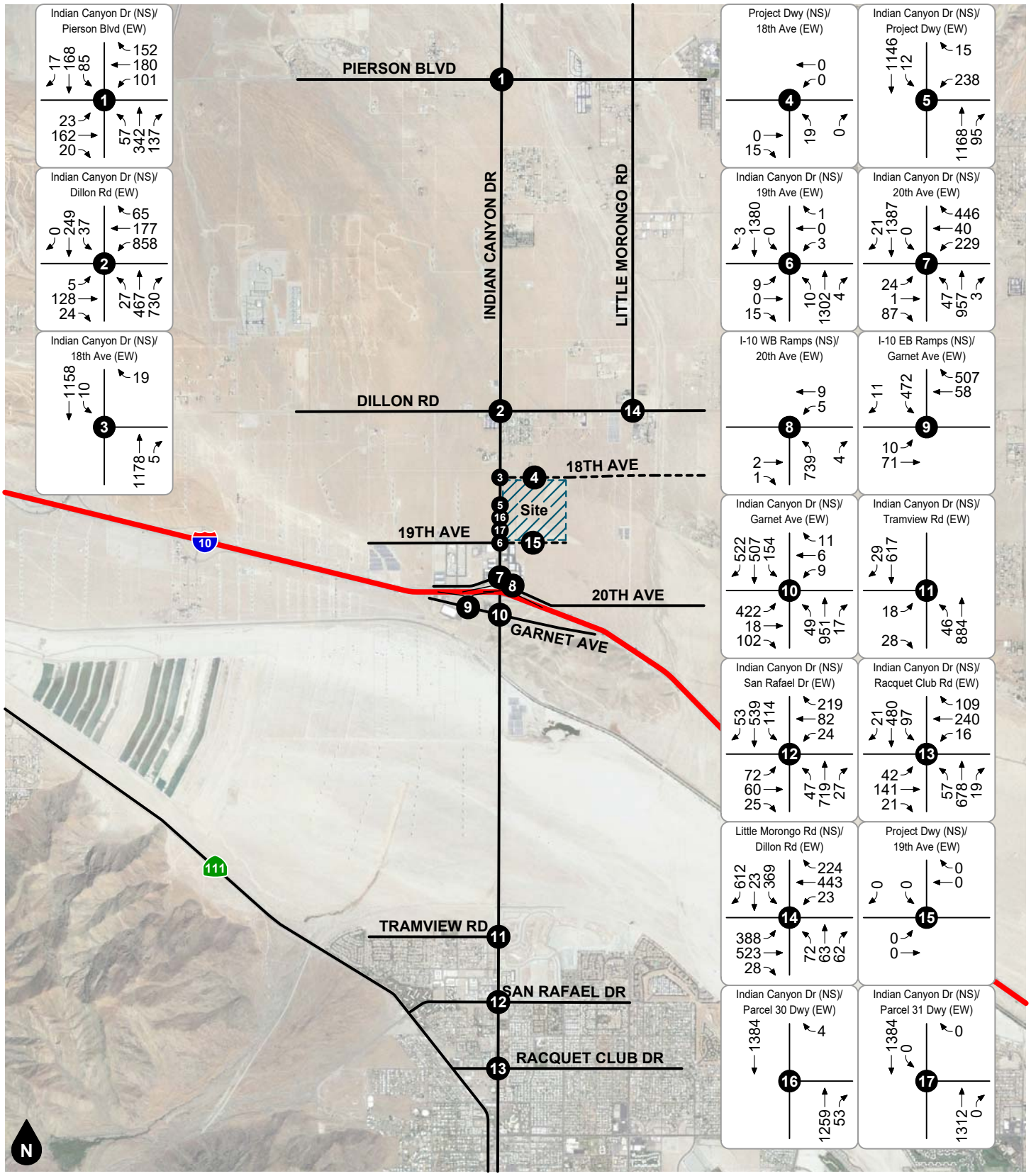
Figure 41
Opening Year (2023) With Project Without Amphitheater Event
Average Daily Traffic Volumes



Legend

(#) Study Intersection

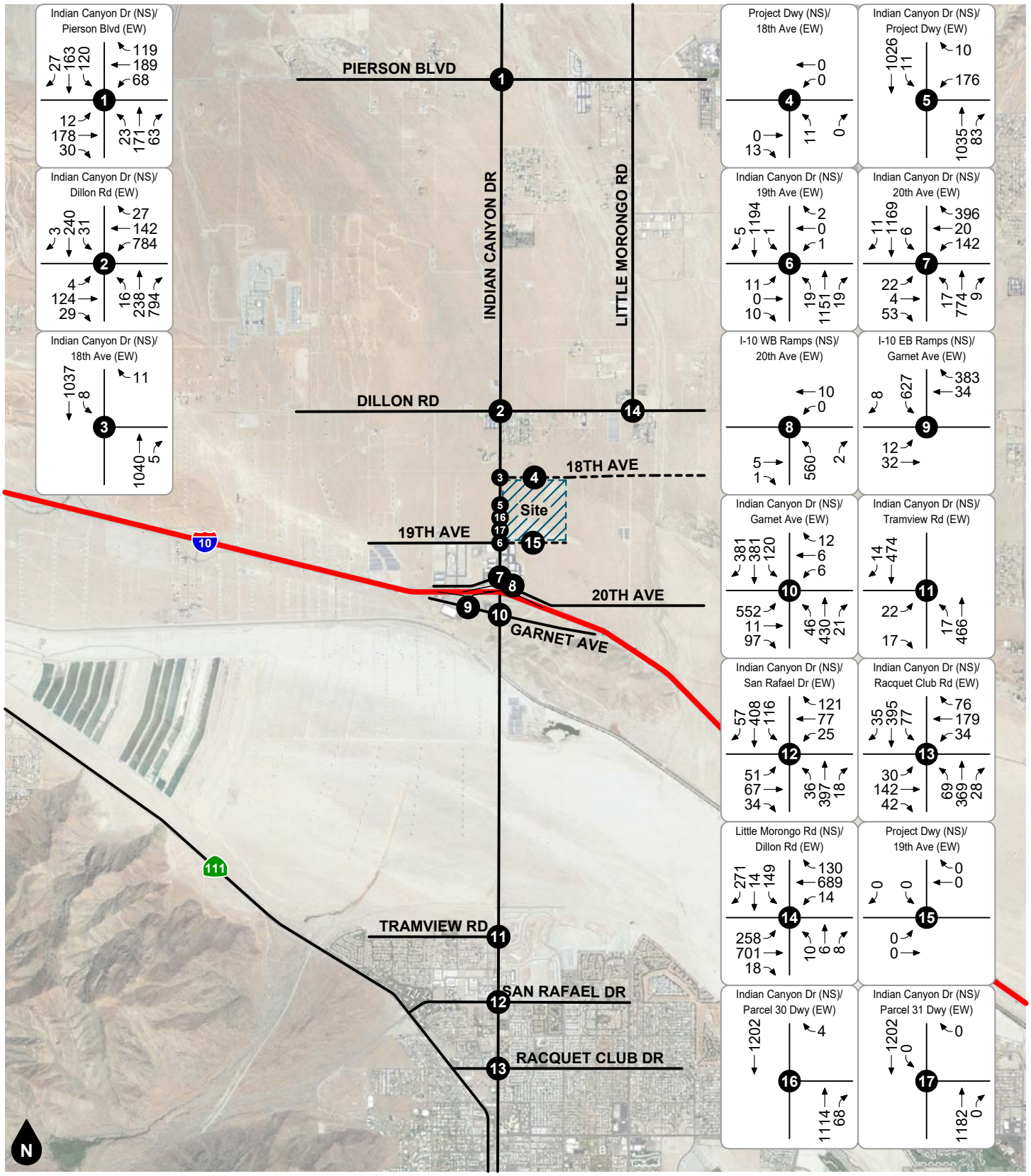
Figure 42
Opening Year (2023) With Project Without Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

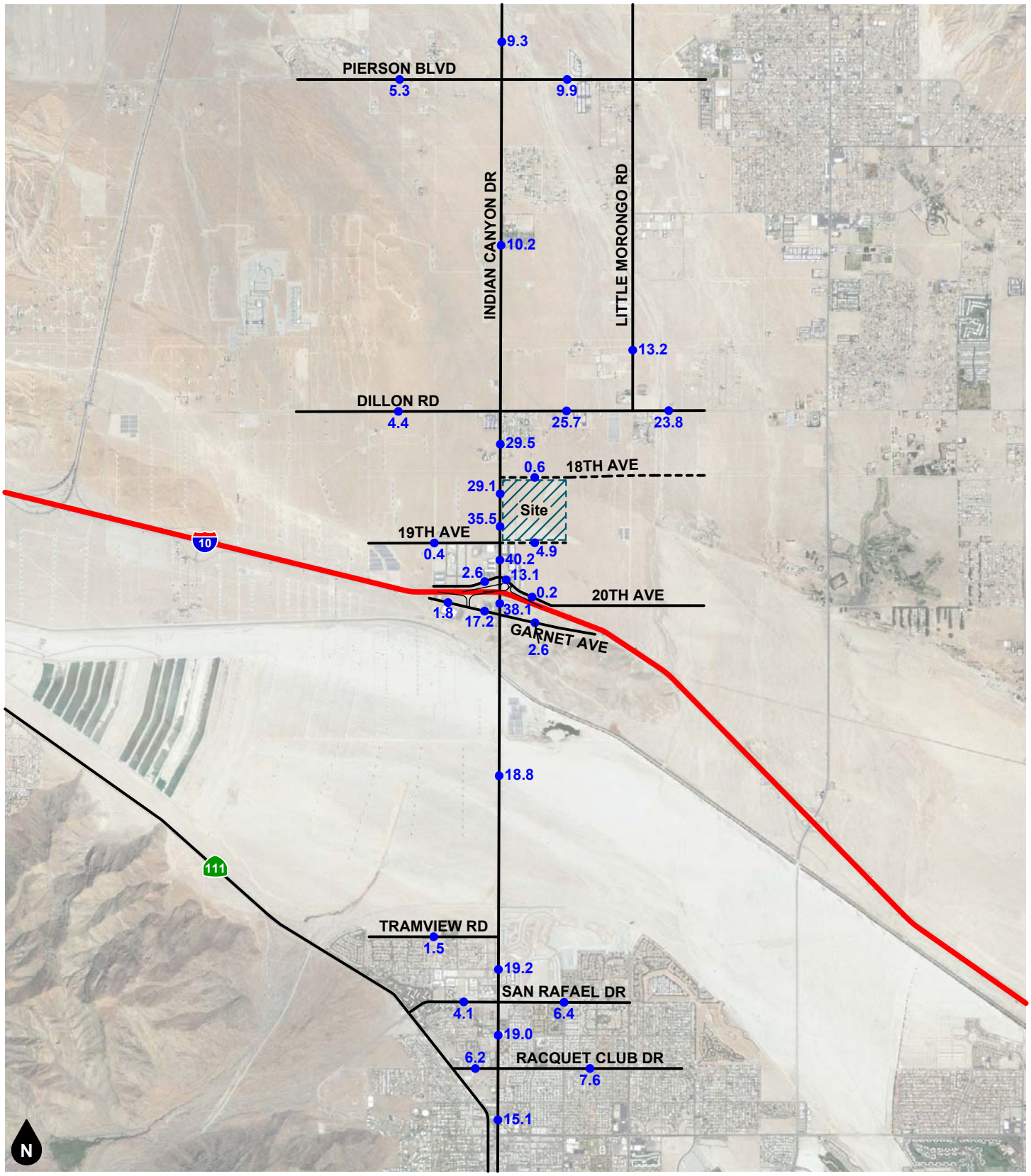
Figure 43
Opening Year (2023) With Project Without Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

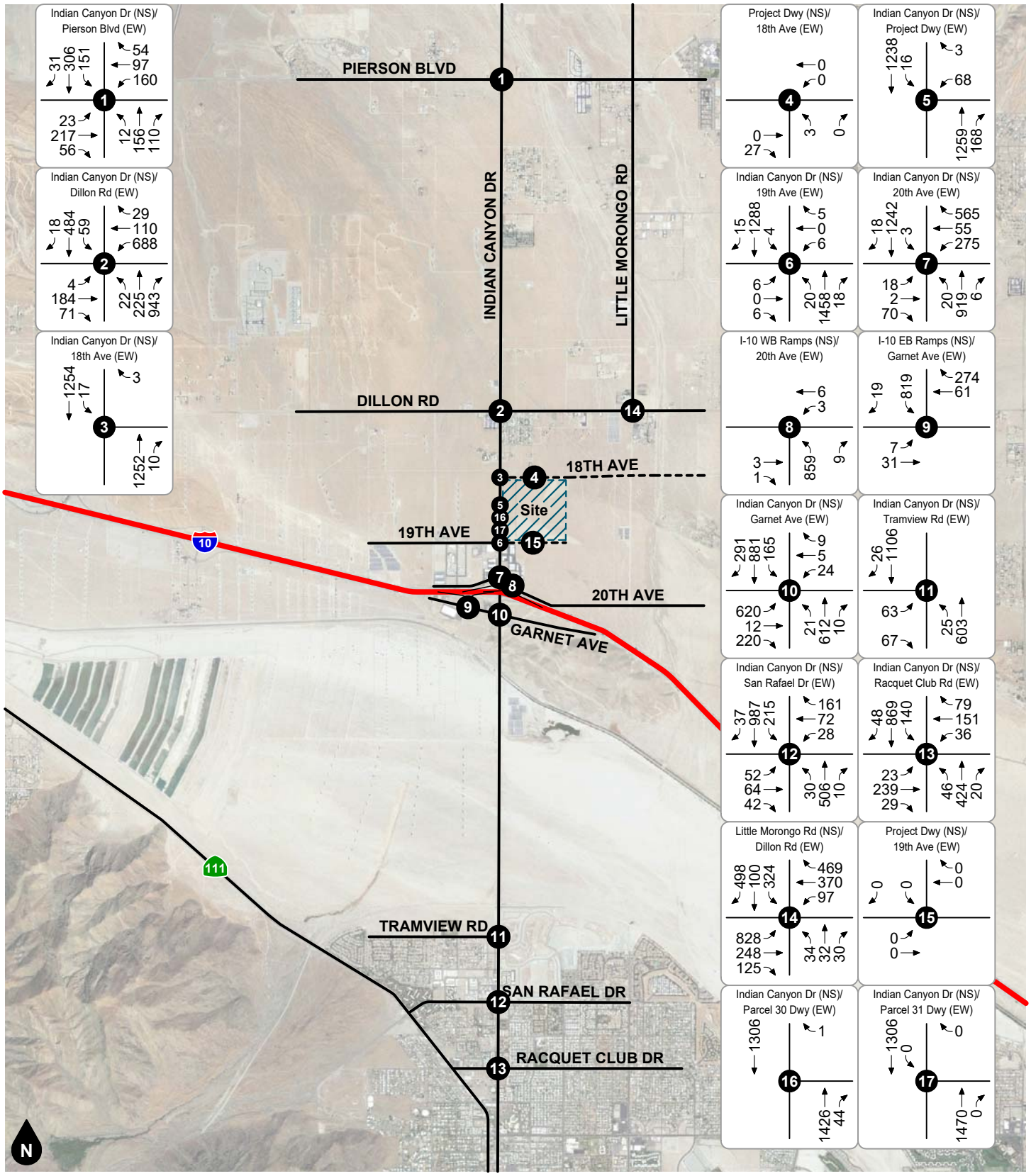
Figure 44
Opening Year (2023) With Project Without Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

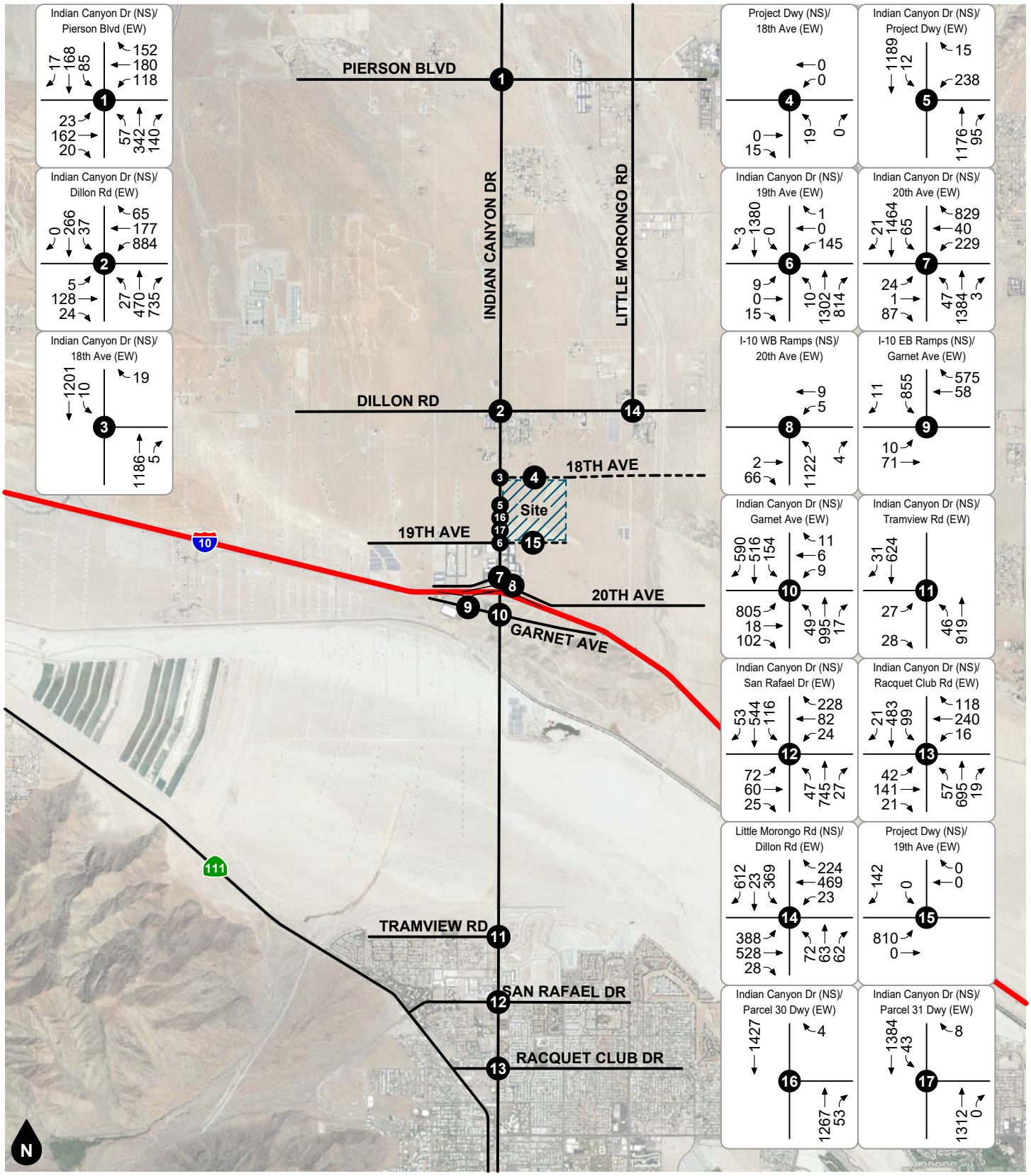
Figure 45
Opening Year (2023) With Project With Amphitheater Event
Average Daily Traffic Volumes



Legend

(#) Study Intersection

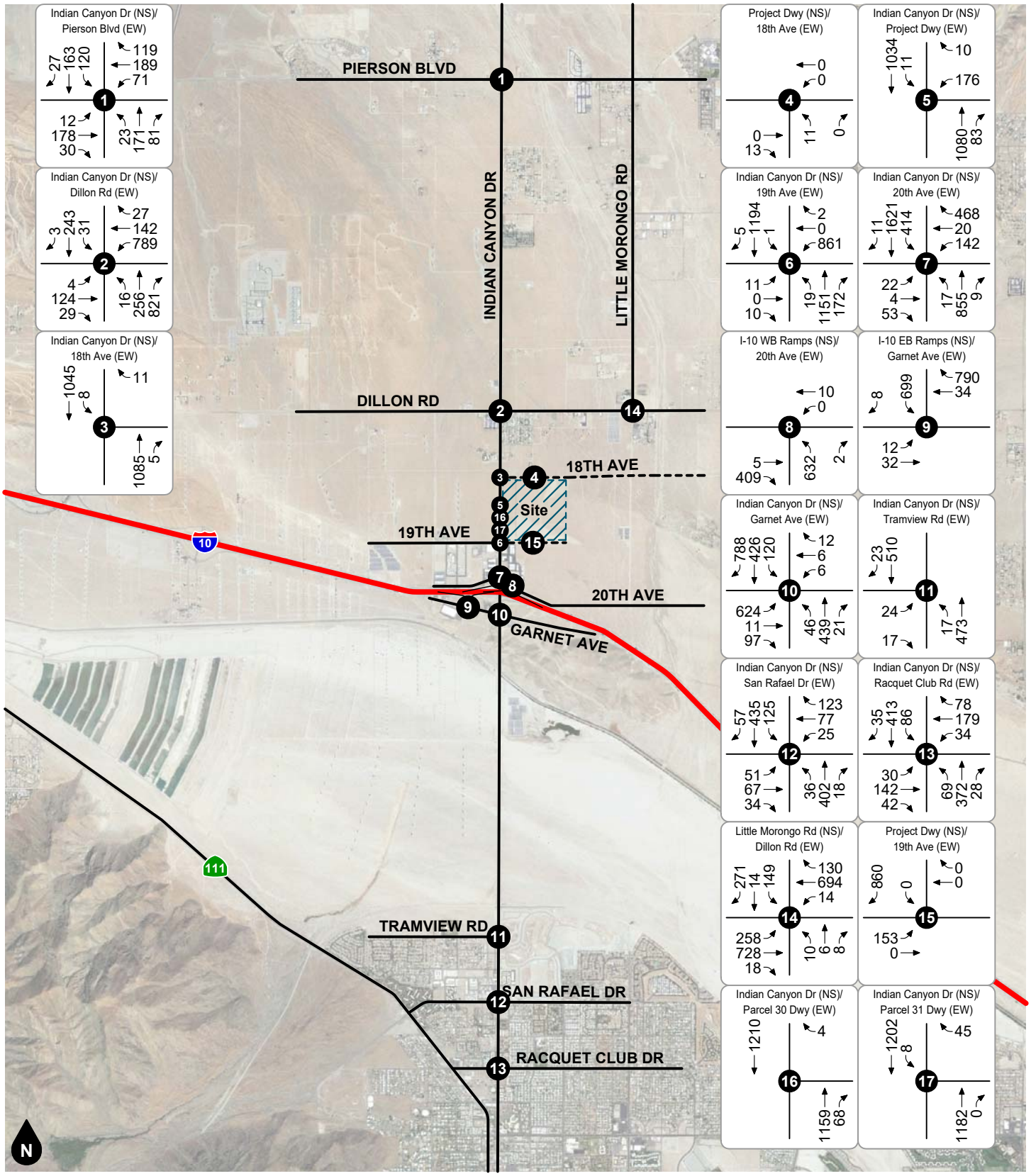
Figure 46
Opening Year (2023) With Project With Amphitheater Event
Weekday AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 47
Opening Year (2023) With Project With Amphitheater Event
Weekday PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

Figure 48
Opening Year (2023) With Project With Amphitheater Event
Saturday Mid-Day Peak Hour Intersection Turning Movement Volumes

6. FUTURE OPERATIONAL ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

EXISTING PLUS PROJECT WITHOUT AMPHITHEATER EVENT

The intersection Levels of Service for Existing Plus Project Without Amphitheater Event conditions are shown in Table 4. As shown in Table 4, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project Without Amphitheater Event conditions, except for the following study intersections that are projected to operate at deficient Levels of Service:

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/Project Driveway – #5 (AM & PM peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM & PM peak hours)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)

The following off-site improvements are needed to mitigate the deficient intersections for Existing Plus Project Without Amphitheater Event conditions, with the project contributing its fair share percentages to these off-site improvements [Intersections #2 and #14]:

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)

The following project-related improvements are needed for Existing Plus Project Without Amphitheater Event conditions, to be provided by the project at these on-site locations [Intersections #3, #4, #5, #6, #15, #16 and #17]:

- Indian Canyon Drive/18th Avenue – #3
  - Install westbound stop sign
  - Provide northbound right turn lane
  - Provide southbound left turn lane
  - Restrict westbound left turn and provide westbound right turn lane

- Project Driveway/18th Avenue – #4
  - Install northbound stop sign
  - Provide northbound left/right turn lane
  - Provide eastbound through/right lane
  - Provide westbound left/through lane

- Indian Canyon Drive/Project Driveway – #5
  - Install traffic signal (signal warrant currently satisfied under Existing Plus Project Without Amphitheater Event conditions)
  - Provide southbound left turn lane
  - Provide westbound left/right turn lane

- Indian Canyon Drive/19th Avenue – #6
  - Install westbound stop sign
  - Provide southbound left turn lane
  - Restrict eastbound and westbound left turn and provide westbound right turn lane

- Project Driveway/19th Avenue – #15
  - Install southbound stop sign
  - Provide southbound left/right turn lane
  - Provide eastbound left/through lane
  - Provide westbound through/right lane

- Indian Canyon Drive/Parcel 30 Driveway – #16
  - Install westbound stop sign
  - Provide westbound right turn lane

- Indian Canyon Drive/Parcel 31 Driveway – #17
  - Install westbound stop sign
  - Provide westbound right turn lane

EXISTING PLUS PROJECT WITH AMPHITHEATER EVENT

The intersection Levels of Service for Existing Plus Project With Amphitheater Event conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project With Amphitheater Event conditions, except for the following study intersection that is forecast to operate at deficient Levels of Service (E or F):

- Indian Canyon Drive/Dillon Road – #2 (AM peak hour)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM peak hour)
- Project Driveway/19th Avenue – #15 (PM peak hour)

No additional off-site improvements are needed to mitigate the deficient intersections for Existing Plus Project With Amphitheater Event conditions other than those previously recommended for Existing Plus Project Without Amphitheater Event conditions.

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for Existing Plus Project With Amphitheater Event conditions, to be implemented by the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #17

This traffic study is a high-level planning document that recommended manual traffic control at the parking lot entrances be implemented by the venue management during amphitheater events. A more detailed traffic circulation control plan should be provided by the applicant and venue management as another submittal separately from this high-level traffic study. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17].

OPENING YEAR (2023) WITHOUT PROJECT

The intersection Levels of Service for Opening Year (2023) Without Project conditions are shown in Table 6. As shown in Table 6, the study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2023) Without Project conditions, except for the following study intersections that are projected to operate at deficient Levels of Service (E or F):

- Indian Canyon Drive/Pierson Boulevard – #1 (AM and PM peak hours)
- Indian Canyon Drive/Dillon Road – #2 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)

OPENING YEAR (2023) WITH PROJECT WITHOUT AMPHITHEATER EVENT

The intersection Levels of Service for Opening Year (2023) With Project Without Amphitheater Event conditions are shown in Table 7. As shown in Table 7, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2023) With Project Without Amphitheater Event conditions, except for the following study intersections that are projected to operate at deficient Levels of Service:

- Indian Canyon Drive/Pierson Boulevard – #1 (AM and PM peak hours)
- Indian Canyon Drive/Dillon Road – #2 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)

The following off-site improvements are needed to mitigate the deficient intersections for Opening Year (2023) With Project Without Amphitheater Event conditions, with the project contributing its fair share percentages to these off-site improvements [Intersections #1, #2, #6 and #14]:

- Indian Canyon Drive/Pierson Boulevard – #1
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane

- Provide two westbound left turn lanes
- Provide northbound right-turn overlap phasing

- Indian Canyon Drive/19th Avenue – #6
  - Provide a second northbound through lane
  - Provide a second southbound through lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide southbound right turn lane with overlap phasing
  - Provide a second eastbound left turn lane
  - Provide westbound right turn lane with overlap phasing

The following project-related improvements are needed for Opening Year (2023) With Project Without Amphitheater Event conditions, to be provided by the project at these on-site locations [Intersections #3, #4, #5, #6, #15, #16 and #17]:

- Indian Canyon Drive/18th Avenue – #3
  - Install westbound stop sign
  - Provide northbound right turn lane
  - Provide southbound left turn lane
  - Restrict westbound left turn and provide westbound right turn lane

- Project Driveway/18th Avenue – #4
  - Install northbound stop sign
  - Provide northbound left/right turn lane
  - Provide eastbound through/right lane
  - Provide westbound left/through lane

- Indian Canyon Drive/Project Driveway – #5
  - Install traffic signal (signal warrant currently satisfied under Existing Plus Project Without Amphitheater Event conditions)
  - Provide southbound left turn lane
  - Provide westbound left/right turn lane

- Indian Canyon Drive/19th Avenue – #6
  - Install westbound stop sign
  - Provide southbound left turn lane
  - Restrict eastbound and westbound left turn and provide westbound right turn lane

- Project Driveway/19th Avenue – #15
  - Install southbound stop sign
  - Provide southbound left/right turn lane
  - Provide eastbound left/through lane
  - Provide westbound through/right lane

- Indian Canyon Drive/Parcel 30 Driveway – #16
  - Install westbound stop sign
  - Provide westbound right turn lane

- Indian Canyon Drive/Parcel 31 Driveway – #17
  - Install westbound stop sign
  - Provide westbound right turn lane

OPENING YEAR (2023) WITH PROJECT WITH AMPHITHEATER EVENT

The intersection Levels of Service for Opening Year (2023) With Project With Amphitheater Event conditions are shown in Table 8. As shown in Table 8, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2023) With Project With Amphitheater Event conditions, except for the following study intersection that is forecast to operate at deficient Levels of Service (E or F):

- Indian Canyon Drive/Dillon Road – #2 (AM & PM peak hours)
- Indian Canyon Drive/Project Driveway – #5 (AM, PM & Saturday Mid-day peak hours)
- Indian Canyon Drive/19th Avenue – #6 (AM, PM & Saturday Mid-day peak hours)
- Little Morongo Road/Dillon Road – #14 (AM, PM & Saturday Mid-day peak hours)
- Project Driveway/19th Avenue – #15 (PM peak hour)

No additional off-site improvements are needed to mitigate the deficient intersections for Opening Year (2023) With Project With Amphitheater Event conditions other than those previously recommended for Opening Year (2023) With Project Without Amphitheater Event conditions.

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for Opening Year (2023) With Project With Amphitheater Event conditions, to be implemented by the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #17

This traffic study is a high-level planning document that recommended manual traffic control at the parking lot entrances be implemented by the venue management during amphitheater events. A more detailed traffic circulation control plan should be provided by the applicant and venue management as another submittal separately from this high-level traffic study. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17].

The project applicant should pay its fair share of fees to an applicable program for the required mitigation measure improvements. Some of the intersections currently satisfy the traffic signal warrant based on Existing conditions.

Table 4 (1 of 2)

Existing Plus Project Without Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
1. Indian Cyn Dr at Pierson Blvd	AWS	18.4	C	18.9	C	+0.5	No	15.0	B	15.3	C	+0.3	No	11.6	B	11.8	B	+0.2	No
2. Indian Cyn Dr at Dillon Blvd	AWS	63.4	F	70.3	F	+6.9	Yes	22.4	C	26.3	D	+3.9	No	14.1	B	14.8	B	+0.7	No
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; WB Left Turn	TS			16.9	B	-46.5	No			11.1	B	-11.3	No			11.6	B	-2.5	No
3. Indian Cyn Dr at 18th Ave																			
•WB Stop Sign; NB Right Turn; SB Left Turn; Restrict WB Left Turn; WB Right Turn Lane	CSS	0.0	A	10.5	B	+10.5	No	0.0	A	15.0	C	+15.0	No	0.0	A	10.8	B	+10.8	No
4. Project Dwy at 18th Ave																			
•NB Stop Sign; NB Left/Right Turn; EB Thru/Right; WB Left/Thru	CSS	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No
5. Indian Cyn Dr at Project Dwy	CSS	0.0	A	60.6	F	+60.6	Yes	0.0	A	333.5	F	+333.5	Yes	0.0	A	37.8	E	+37.8	Yes
•New Traffic Signal; SB Left Turn; WB Left/Right Turn	TS			5.4	A	+5.4	No			11.4	B	+11.4	No			8.2	A	+8.2	No
6. Indian Cyn Dr at 19th Ave	CSS	32.0	D	49.3	E	+17.3	Yes	27.2	D	47.8	E	+20.6	Yes	15.1	C	21.6	C	+6.5	No
•WB Stop Sign; SB Left Turn; Restrict EB/WB Left Turns; WB Right Turn	CSS			17.4	C	-14.6	No			15.9	C	-11.3	No			12.7	B	-2.4	No
7. Indian Cyn Dr at 20th Ave	TS	15.2	B	16.0	B	+0.8	No	15.7	B	16.6	B	+0.9	No	13.9	B	14.6	B	+0.7	No
8. I-10 WB Ramps at 20th Ave	TS	24.5	C	24.9	C	+0.4	No	23.5	C	23.8	C	+0.3	No	25.4	C	25.6	C	+0.2	No
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	16.2	B	+0.1	No	14.6	B	14.5	B	-0.1	No	16.3	B	16.3	B	-	No
10. Indian Cyn Dr at Garnet Ave	TS	15.2	B	15.6	B	+0.4	No	14.3	B	14.4	B	+0.1	No	14.9	B	15.0	B	+0.1	No
11. Indian Cyn Dr at Tramview Rd	CSS	24.7	C	25.3	D	+0.6	No	11.7	B	12.0	B	+0.3	No	10.8	B	11.0	B	+0.2	No
12. Indian Cyn Dr at San Rafael Dr	TS	15.8	B	15.9	B	+0.1	No	17.2	B	17.3	B	+0.1	No	13.9	B	14.0	B	+0.1	No
13. Indian Cyn Dr at Racquet Club Rd	TS	15.6	B	15.7	B	+0.1	No	16.1	B	16.2	B	+0.1	No	15.8	B	15.8	B	-	No

Table 4 (2 of 2)

Existing Plus Project Without Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
14. Little Morongo Rd at Dillon Rd	AWS	46.8	E	48.9	E	+2.1	Yes	15.6	C	16.1	C	+0.5	No	10.9	B	11.1	B	+0.2	No
•New Traffic Signal	TS			20.9	C	-25.9	No			13.9	B	-1.7	No			15.7	B	+4.8	No
15. Project Dwy at 19th Ave																			
•SB Stop Sign; SB Left/Right Turn; EB Left/Thru; WB Thru/Right	CSS	0.0	A	8.5	A	+8.5	No	0.0	A	8.4	A	+8.4	No	0.0	A	8.4	A	+8.4	No
16. Indian Cyn Dr at Parcel 30 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	12.2	B	+12.2	No	0.0	A	16.2	C	+16.2	No	0.0	A	11.7	B	+11.7	No
17. Indian Cyn Dr at Parcel 31 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	12.4	B	+12.4	No	0.0	A	16.5	C	+16.5	No	0.0	A	11.9	B	+11.9	No

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst approach.

(3) LOS = Level of Service

Table 5 (1 of 2)

Existing Plus Project With Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
1. Indian Cyn Dr at Pierson Blvd	AWS	18.4	C	18.9	C	+0.5	No	15.0	B	15.9	C	+0.9	No	11.6	B	11.8	B	+0.2	No
2. Indian Cyn Dr at Dillon Blvd	AWS	63.4	F	70.3	F	+6.9	Yes	22.4	C	30.1	D	+7.7	No	14.1	B	15.6	C	+1.5	No
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; WB Left Turn	TS			16.9	B	-46.5	No			11.7	B	-10.7	No			11.7	B	-2.4	No
3. Indian Cyn Dr at 18th Ave																			
•WB Stop Sign; NB Right Turn; SB Left Turn; Restrict WB Left Turn; WB Right Turn Lane	CSS	0.0	A	10.5	B	+10.5	No	0.0	A	15.2	C	+15.2	No	0.0	A	11.2	B	+11.2	No
4. Project Dwy at 18th Ave																			
•NB Stop Sign; NB Left/Right Turn; EB Thru/Right; WB Left/Thru	CSS	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No
5. Indian Cyn Dr at Project Dwy	CSS	0.0	A	60.6	F	+60.6	Yes	0.0	A	389.5	F	+389.5	Yes	0.0	A	44.8	E	+44.8	Yes
•New Traffic Signal; SB Left Turn; WB Left/Right Turn	TS			5.4	A	+5.4	No			11.4	B	+11.4	No			8.2	A	+8.2	No
6. Indian Cyn Dr at 19th Ave	CSS	32.0	D	49.3	F	+17.3	Yes	27.2	D	1729.0	F	+1701.8	Yes	15.1	C	2410.0	F	+2394.9	Yes
•WB Stop Sign with Manual Traffic Control during Event	MTC			3.3	A	-28.7	No			7.8	A	-19.4	No			17.0	B	+1.9	No
7. Indian Cyn Dr at 20th Ave	TS	15.2	B	16.0	B	+0.8	No	15.7	B	28.4	C	+12.7	No	13.9	B	19.1	B	+5.2	No
8. I-10 WB Ramps at 20th Ave	TS	24.5	C	24.9	C	+0.4	No	23.5	C	24.0	C	+0.5	No	25.4	C	26.0	C	+0.6	No
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	16.2	B	+0.1	No	14.6	B	14.6	B	-	No	16.3	B	17.7	B	+1.4	No
10. Indian Cyn Dr at Garnet Ave	TS	15.2	B	15.6	B	+0.4	No	14.3	B	20.1	B	+5.8	No	14.9	B	17.0	B	+2.1	No
11. Indian Cyn Dr at Tramview Rd	CSS	24.7	C	25.3	D	+0.6	No	11.7	B	12.7	B	+1.0	No	10.8	B	11.3	B	+0.5	No
12. Indian Cyn Dr at San Rafael Dr	TS	15.8	B	15.9	B	+0.1	No	17.2	B	17.9	B	+0.7	No	13.9	B	14.3	B	+0.4	No
13. Indian Cyn Dr at Racquet Club Rd	TS	15.6	B	15.7	B	+0.1	No	16.1	B	16.3	B	+0.2	No	15.8	B	16.6	B	+0.8	No

Table 5 (2 of 2)

Existing Plus Project With Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?	Existing Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
14. Little Morongo Rd at Dillon Rd	AWS	46.8	E	48.9	E	+2.1	Yes	15.6	C	17.2	C	+1.6	No	10.9	B	11.4	B	+0.5	No
•New Traffic Signal	TS			20.9	C	-25.9	No			14.4	B	-1.2	No			15.8	B	+4.9	No
15. Project Dwy at 19th Ave																			
•SB Stop Sign; SB Left/Right Turn; EB Left/Thru; WB Thru/Right	CSS	0.0	A	8.4	A	+8.4	No	0.0	A	9.7	A	+9.7	No	0.0	A	22.4	C	+22.4	No
•SB Stop Sign with Manual Traffic Control during Event	MTC			8.3	A	+8.3	No			9.6	A	+9.6	No			22.4	C	+22.4	No
16. Indian Cyn Dr at Parcel 30 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	12.2	B	+12.2	No	0.0	A	16.3	C	+16.3	No	0.0	A	12.1	B	+12.1	No
17. Indian Cyn Dr at Parcel 31 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	12.4	B	+12.4	No	0.0	A	16.8	C	+16.8	No	0.0	A	12.6	B	+12.6	No
•WB Stop Sign with Manual Traffic Control during Event	MTC			1.7	A	+1.7	No			2.1	A	+2.1	No			3.6	A	+3.6	No

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop; MTC = Manual Traffic Control during Amphitheater Event

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst approach.

(3) LOS = Level of Service

Table 6

Opening Year (2023) Without Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Indian Cyn Dr at Pierson Blvd	AWS	93.5	F	47.5	E	29.0	D
2. Indian Cyn Dr at Dillon Blvd	AWS	425.6	F	350.8	F	331.9	F
6. Indian Cyn Dr at 19th Ave	CSS	399.9	F	173.0	F	131.1	F
7. Indian Cyn Dr at 20th Ave	TS	17.3	B	16.8	B	14.4	B
8. I-10 WB Ramps at 20th Ave	TS	24.9	C	24.2	C	25.5	C
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	14.6	B	16.5	B
10. Indian Cyn Dr at Garnet Ave	TS	21.1	C	16.6	B	19.6	B
11. Indian Cyn Dr at Tramview Rd	CSS	29.3	D	12.6	C	12.3	B
12. Indian Cyn Dr at San Rafael Dr	TS	16.6	B	18.0	B	13.9	B
13. Indian Cyn Dr at Racquet Club Rd	TS	15.9	B	16.3	B	15.7	B
14. Little Morongo Rd at Dillon Rd	AWS	489.3	F	396.5	F	277.8	F

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

Table 7 (1 of 2)

Opening Year (2023) With Project Without Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
1. Indian Cyn Dr at Pierson Blvd	AWS	93.5	F	97.9	F	+4.4	Yes	47.5	E	49.7	E	+2.2	Yes	29.0	D	30.3	D	+1.3	No
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; WB Left Turn	TS			14.6	B	-78.9	No			14.0	B	-33.5	No			14.4	B	-14.6	No
2. Indian Cyn Dr at Dillon Blvd	AWS	425.6	F	433.3	F	+7.7	Yes	350.8	F	361.2	F	+10.4	Yes	331.9	F	338.7	F	+6.8	Yes
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; 2 WB Left Turn; NB Right Turn Overlap	TS			32.5	C	-393.1	No			22.0	C	-328.8	No			19.0	B	-312.9	No
3. Indian Cyn Dr at 18th Ave																			
•WB Stop Sign; NB Right Turn; SB Left Turn; Restrict WB Left Turn; WB Right Turn Lane	CSS	0.0	A	24.0	C	+24.0	No	0.0	A	23.6	C	+23.6	No	0.0	A	19.5	C	+19.5	No
4. Project Dwy at 18th Ave																			
•NB Stop Sign; NB Left/Right Turn; EB Thru/Right; WB Left/Thru	CSS	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No
5. Indian Cyn Dr at Project Dwy	CSS	0.0	A	1679.7	F	+1679.7	Yes	0.0	A	3755.3	F	+3755.3	Yes	0.0	A	1625.8	F	+1625.8	Yes
•New Traffic Signal; SB Left Turn; WB Left/Right Turn	TS			13.5	B	+13.5	No			24.6	C	+24.6	No			13.0	B	+13.0	No
6. Indian Cyn Dr at 19th Ave	CSS	399.9	F	859.0	F	+459.1	Yes	173.0	F	433.2	F	+260.2	Yes	131.1	F	195.9	F	+64.8	Yes
•WB Stop Sign; SB Left Turn; Restrict EB/WB Left Turns; WB Right Turn; 2nd NB/SB Thru	CSS			16.9	C	-383.0	No			15.7	C	-157.3	No			13.7	B	-117.4	No
7. Indian Cyn Dr at 20th Ave	TS	17.3	B	19.6	B	+2.3	No	16.8	B	18.7	B	+1.9	No	14.4	B	15.8	B	+1.4	No
8. I-10 WB Ramps at 20th Ave	TS	24.9	C	25.3	C	+0.4	No	24.2	C	24.4	C	+0.2	No	25.5	C	25.9	C	+0.4	No
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	16.4	B	+0.3	No	14.6	B	14.7	B	+0.1	No	16.5	B	16.6	B	+0.1	No
10. Indian Cyn Dr at Garnet Ave	TS	21.1	C	21.9	C	+0.8	No	16.6	B	17.8	B	+1.2	No	19.6	B	20.5	C	+0.9	No
11. Indian Cyn Dr at Tramview Rd	CSS	29.3	D	30.1	D	+0.8	No	12.6	C	12.9	B	+0.3	No	12.3	B	11.5	B	-0.8	No
12. Indian Cyn Dr at San Rafael Dr	TS	16.6	B	16.7	B	+0.1	No	18.0	B	18.1	B	+0.1	No	13.9	B	14.0	B	+0.1	No
13. Indian Cyn Dr at Racquet Club Rd	TS	15.9	B	15.9	B	-	No	16.3	B	16.4	B	+0.1	No	15.7	B	15.9	B	+0.2	No

Table 7 (2 of 2)

Opening Year (2023) With Project Without Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
14. Little Morongo Rd at Dillon Rd	AWS	489.3	F	493.2	F	+3.9	Yes	396.5	F	400.9	F	+4.4	Yes	277.8	F	284.2	F	+6.4	Yes
•New Traffic Signal; NB Left Turn; SB Left Turn; SB Right Turn with Overlap; 2nd EB Left Turn; WB Right Turn with Overlap	TS			35.9	D	-453.4	No			32.6	C	-363.9	No			27.4	C	-250.4	No
15. Project Dwy at 19th Ave																			
•SB Stop Sign; SB Left/Right Turn; EB Left/Thru; WB Thru/Right	CSS	0.0	A	8.4	A	+8.4	No	0.0	A	8.4	A	+8.4	No	0.0	A	8.4	A	+8.4	No
16. Indian Cyn Dr at Parcel 30 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	30.0	D	+30.0	No	0.0	A	25.1	D	+25.1	No	0.0	A	21.5	C	+21.5	No
17. Indian Cyn Dr at Parcel 31 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	30.6	D	+30.6	No	0.0	A	25.4	D	+25.4	No	0.0	A	21.9	C	+21.9	No

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 8 (1 of 2)

Opening Year (2023) With Project With Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
1. Indian Cyn Dr at Pierson Blvd	AWS	93.5	F	97.9	F	+4.4	Yes	47.5	E	53.1	F	+5.6	Yes	29.0	D	31.4	D	+2.4	No
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; WB Left Turn	TS			14.6	B	-78.9	No			14.2	B	-33.3	No			14.7	B	-14.3	No
2. Indian Cyn Dr at Dillon Blvd	AWS	425.6	F	433.3	F	+7.7	Yes	350.8	F	379.5	F	+28.7	Yes	331.9	F	348.4	F	+16.5	Yes
•New Traffic Signal; NB Left Turn; SB Left Turn; EB Left Turn; 2 WB Left Turn; NB Right Turn Overlap	TS			33.7	C	-391.9	No			22.4	C	-328.4	No			19.6	B	-312.3	No
3. Indian Cyn Dr at 18th Ave																			
•WB Stop Sign; NB Right Turn; SB Left Turn; Restrict WB Left Turn; WB Right Turn Lane	CSS	0.0	A	24.0	C	+24.0	No	0.0	A	23.8	C	+23.8	No	0.0	A	20.5	C	+20.5	No
4. Project Dwy at 18th Ave																			
•NB Stop Sign; NB Left/Right Turn; EB Thru/Right; WB Left/Thru	CSS	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No	0.0	A	8.6	A	+8.6	No
5. Indian Cyn Dr at Project Dwy	CSS	0.0	A	1679.7	F	+1679.7	Yes	0.0	A	4141.6	F	+4141.6	Yes	0.0	A	1806.2	F	+1806.2	Yes
•New Traffic Signal; SB Left Turn; WB Left/Right Turn	TS			13.5	B	+13.5	No			25.8	C	+25.8	No			13.9	B	+13.9	No
6. Indian Cyn Dr at 19th Ave	CSS	399.9	F	859.0	F	+459.1	Yes	173.0	F	9999.9	F	+9826.9	Yes	131.1	F	9999.9	F	+9868.8	Yes
•WB Stop Sign with Manual Traffic Control during Event	MTC			10.4	B	-389.5	No			10.4	B	-162.6	No			38.0	D	-93.1	No
7. Indian Cyn Dr at 20th Ave	TS	17.3	B	19.6	B	+2.3	No	16.8	B	37.5	D	+20.7	No	14.4	B	26.8	C	+12.4	No
8. I-10 WB Ramps at 20th Ave	TS	24.9	C	25.3	C	+0.4	No	24.2	C	24.6	C	+0.4	No	25.5	C	26.3	C	+0.8	No
9. I-10 EB Ramps at Garnet Ave	TS	16.1	B	16.4	B	+0.3	No	14.6	B	14.7	B	+0.1	No	16.5	B	16.9	B	+0.4	No
10. Indian Cyn Dr at Garnet Ave	TS	21.1	C	21.9	C	+0.8	No	16.6	B	25.6	C	+9.0	No	19.6	B	33.4	C	+13.8	No
11. Indian Cyn Dr at Tramview Rd	CSS	29.3	D	30.1	D	+0.8	No	12.6	C	13.7	B	+1.1	No	12.3	B	11.8	B	-0.5	No
12. Indian Cyn Dr at San Rafael Dr	TS	16.6	B	16.7	B	+0.1	No	18.0	B	18.6	B	+0.6	No	13.9	B	14.1	B	+0.2	No

Table 8 (2 of 2)

Opening Year (2023) With Project With Amphitheater Event Intersection Levels of Service

Study Intersection	Traffic Control[1]	Weekday AM Peak Hour						Weekday PM Peak Hour						Saturday Mid-Day Peak Hour					
		Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?	Background Traffic		With Project Traffic		Project Change	Deficient LOS?
		Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]			Delay[2]	LOS[3]	Delay[2]	LOS[3]		
13. Indian Cyn Dr at Racquet Club Rd	TS	15.9	B	15.9	B	-	No	16.3	B	16.5	B	+0.2	No	15.7	B	16.3	B	+0.6	No
14. Little Morongo Rd at Dillon Rd	AWS	489.3	F	493.2	F	+3.9	Yes	396.5	F	408.8	F	+12.3	Yes	277.8	F	295.9	F	+18.1	Yes
•New Traffic Signal; NB Left Turn; SB Left Turn; SB Right Turn with Overlap; 2nd EB Left Turn; WB Right Turn with Overlap	TS			35.9	D	-453.4	No			35.5	D	-361.0	No			28.5	C	-249.3	No
15. Project Dwy at 19th Ave																			
•SB Stop Sign; SB Left/Right Turn; EB Left/Thru; WB Thru/Right	CSS	0.0	A	8.4	A	+8.4	No	0.0	A	9.7	A	+9.7	No	0.0	A	22.4	C	+22.4	No
•SB Stop Sign with Manual Traffic Control during Event	MTC			8.3	A	+8.3	No			9.6	A	+9.6	No			22.4	C	+22.4	No
16. Indian Cyn Dr at Parcel 30 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	30.0	D	+30.0	No	0.0	A	25.3	D	+25.3	No	0.0	A	22.6	C	+22.6	No
17. Indian Cyn Dr at Parcel 31 Dwy																			
•WB Stop Sign; WB Right Turn	CSS	0.0	A	30.6	D	+30.6	No	0.0	A	26.4	D	+26.4	No	0.0	A	26.7	D	+26.7	No
•WB Stop Sign with Manual Traffic Control during Event	MTC			6.8	A	+6.8	No			6.6	A	+6.6	No			6.8	A	+6.8	No

Notes:

(1) AWS = All-Way Stop; TS = Traffic Signal; CSS = Cross Street Stop; MTC = Manual Traffic Control during Amphitheater Event

(2) Delay is shown in seconds/vehicle based on Highway Capacity Manual (HCM) method. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst individual lane (or movements sharing a lane).

(3) LOS = Level of Service

7. CONCLUSIONS

MITIGATION MEASURES

The following off-site improvements to mitigate the significantly impacted intersections for Existing Plus Project conditions, without and with Amphitheater Event, with the project contributing its fair share percentages to these off-site improvements [Intersections #2 and #14]:

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)

The following project-related improvements are needed for Existing Plus Project conditions, without and with Amphitheater Event, to be provided by the project at these on-site locations [Intersections #3, #4, #5, #6, #15, #16 and #17]:

- Indian Canyon Drive/18th Avenue – #3
  - Install westbound stop sign
  - Provide northbound right turn lane
  - Provide southbound left turn lane
  - Restrict westbound left turn and provide westbound right turn lane

- Project Driveway/18th Avenue – #4
  - Install northbound stop sign
  - Provide northbound left/right turn lane
  - Provide eastbound through/right lane
  - Provide westbound left/through lane

- Indian Canyon Drive/Project Driveway – #5
  - Install traffic signal (signal warrant currently satisfied under Existing Plus Project Without Amphitheater Event conditions)
  - Provide southbound left turn lane
  - Provide westbound left/right turn lane

- Indian Canyon Drive/19th Avenue – #6
  - Install westbound stop sign
  - Provide southbound left turn lane
  - Restrict eastbound and westbound left turn and provide westbound right turn lane

- Project Driveway/19th Avenue – #15
  - Install southbound stop sign
  - Provide southbound left/right turn lane
  - Provide eastbound left/through lane
  - Provide westbound through/right lane

- Indian Canyon Drive/Parcel 30 Driveway – #16
  - Install westbound stop sign
  - Provide westbound right turn lane

- Indian Canyon Drive/Parcel 31 Driveway – #17
  - Install westbound stop sign
  - Provide westbound right turn lane

The following off-site improvements are needed to mitigate the deficient intersections for Opening Year (2023) With Project conditions, without and with Amphitheater Event, with the project contributing its fair share percentages to these off-site improvements [Intersections #1, #2, #6 and #14]:

- Indian Canyon Drive/Pierson Boulevard – #1
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide westbound left turn lane

- Indian Canyon Drive/Dillon Road – #2
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide eastbound left turn lane
  - Provide two westbound left turn lanes
  - Provide northbound right-turn overlap phasing

- Indian Canyon Drive/19th Avenue – #6
  - Provide a second northbound through lane
  - Provide a second southbound through lane

- Little Morongo Road/Dillon Road – #14
  - Install traffic signal (signal warrant currently satisfied under Existing conditions)
  - Provide northbound left turn lane
  - Provide southbound left turn lane
  - Provide southbound right turn lane with overlap phasing
  - Provide a second eastbound left turn lane
  - Provide westbound right turn lane with overlap phasing

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for conditions with Amphitheater Event, to be implemented by the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #17

This traffic study is a high-level planning document that recommended manual traffic control at the parking lot entrances be implemented by the venue management during amphitheater events. A more detailed traffic circulation control plan should be provided by the applicant and venue management as another submittal separately from this high-level traffic study. A typical manual traffic control should have a police officer

directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17].

Since this is a degradation of Level of Service for the already deficient intersection operations under Existing conditions, the project applicant should pay its fair share of fees to an applicable program for the required mitigation measure improvements. Some of the intersections currently satisfy the traffic signal warrant based on Existing conditions.

PROJECT FAIR SHARE CONTRIBUTION

The project fair share contributions have also been calculated for Opening Year (2023) With Project improvement locations. The project share of cost has been based on the proportion of project peak hour intersection turning movement volumes contributed to the improvement location relative to the total new peak hour Opening Year (2023) With Project intersection turning movement volumes.

Table 9 presents a summary of improvement cost and project cost shares at the Opening Year (2023) With Project study intersection improvement locations. The intersection fair share cost calculations are typically based on the higher of the weekday morning and weekday evening peak hour traffic volumes. As shown in Table 9, the project's fair share percentages of identified impacted intersections are approximately 0.7% to 9.0% at the off-site study intersection locations. The fair share calculations are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

SITE ACCESS

The following project-related improvements will be constructed by the project to provide project site access, to be provided by the project at these on-site locations [Intersections #3, #4, #5, #6, #15, #16 and #17]:

Indian Canyon Drive at 18th Avenue (Intersection #3)
- Install westbound stop sign.
- Provide northbound right turn lane.
- Provide southbound left turn lane.
- Restrict westbound left turn and provide westbound right turn lane.

Project Driveway at 18th Avenue (Intersection #4)
- Install northbound stop sign.
- Provide northbound left/right turn lane.
- Provide eastbound through/right lane.
- Provide westbound left/through lane.

Indian Canyon Drive at Project Driveway (Intersection #5)
- Install a traffic signal.
- Provide a southbound left turn lane.
- Provide a westbound left/right turn lane.

Indian Canyon Drive at 19th Avenue (Intersection #6)
- Install westbound stop sign.
- Provide southbound left turn lane.
- Restrict westbound left turn and provide westbound right turn lane.

Project Driveway at 19th Avenue (Intersection #15)

- Install southbound stop sign.
- Provide southbound left/right turn lane.
- Provide eastbound left/through lane.
- Provide westbound through/right lane.

Indian Canyon Drive at Parcel 30 Driveway (Intersection #16)

- Install westbound stop sign.
- Provide westbound right turn lane.

Indian Canyon Drive at Parcel 31 Driveway (Intersection #17)

- Install westbound stop sign.
- Provide westbound right turn lane.

TRIP AND IMPROVEMENT COMPARISON BETWEEN APPROVED AND PROPOSED SPECIFIC PLAN

The Coachillin' Industrial Park Specific Plan was approved in 2017. The approved Coachillin' Industrial Park Specific Plan consists of developing the currently vacant project site with approximately 2,800,000 square feet of building envelope grow sites for cannabis cultivation, processing, and distribution uses. The approved industrial park project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day.

For the currently proposed specific plan in 2021, the applicant is proposing to modify a small portion of the approved Coachillin' Industrial Park project site within Parcel 30 and Parcel 31. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater. To be conservative, a higher project quantity of 175 hotel rooms is assumed for Parcel 30 even though the site plan shows less rooms. The proposed changes to the approved 2017 specific plan are summarized in the table below:

Approved 2017 Specific Plan	Proposed 2021 Specific Plan
2,800,000 Square Foot Industrial Park (Cannabis)	2,800,000 Square Foot Industrial Park (Cannabis) 175-Room Hotel in Parcel 30 5,000-Seat Amphitheater in Parcel 31

Table 10 summarizes the trip generation comparison between the previously approved 2017 specific plan and the currently proposed 2021 specific plan, without and with the amphitheater event. The currently proposed 2021 specific plan will generate more trips than the previously approved 2017 specific plan. It should be noted that the traffic study for the previously approved 2017 specific plan did not analyze Saturday mid-day conditions. As shown in Table 10, the currently proposed 2021 specific plan without event will generate additional 1,463 daily trips with additional 82 AM peak hour trips and additional 105 PM peak hour trips in comparison to the previously approved 2017 specific plan. With amphitheater event during the weekday PM peak hour, the currently proposed 2021 specific plan with amphitheater event will generate additional 3,963 daily trips with additional 82 AM peak hour trips and additional 1,105 PM peak hour trips in comparison to the previously approved 2017 specific plan.

The recommended off-site intersection mitigation measures and project-related improvements for this updated 2021 traffic study are mostly consistent with the previously approved 2017 traffic study, with some additional off-site intersection improvements and some additional project access design features for the proposed hotel in Parcel 30 and the proposed amphitheater in Parcel 31. Manual traffic control is recommended be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the three intersections, for conditions with Amphitheater Event, to be implemented by

the event organizer at these intersections which serve as access route for the Amphitheater [Intersections #6, #15 and #17]. A typical manual traffic control should have a police officer directing traffic on Indian Canyon Drive at the Parcel 31 Driveway [Intersection #17] and another police officer on Indian Canyon Drive at 19th Avenue [Intersection #6]. The venue management should also provide a minimum of two event staff at each of the three locations that required manual traffic control [Intersections #6, #15 and #17]. Table 11 summarizes the intersection improvement differences between the previously approved 2017 specific plan and this proposed 2021 specific plan.

GENERAL RECOMMENDATIONS

Figure 49 summarizes the circulation recommendations for the proposed project.

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for conditions with Amphitheater Event:

- Indian Canyon Drive/19th Avenue – #6
- Project Driveway/19th Avenue – #15
- Indian Canyon Drive/Parcel 31 Driveway – #16

Indian Canyon Drive, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

Calle De Los Romos, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

18th Avenue, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

19th Avenue, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

Install a traffic signal at the intersection of Indian Canyon Drive and Project Driveway.

All roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project should be constructed in accordance with applicable engineering standards and to the satisfaction of the City of Desert Hot Springs.

Site-adjacent roadways should be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Desert Hot Springs.

On-site traffic signing and striping plans should be submitted for City of Desert Hot Springs approval in conjunction with detailed construction plans for the project.

The final grading, landscaping, and street improvement plans should demonstrate that sight distance standards are met in accordance with applicable City of Desert Hot Springs/California Department of Transportation sight distance standards.

As is the case for any roadway design, the City of Desert Hot Springs should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Table 9

Project Fair Share Intersection Traffic Contribution

Intersection	Peak Hour	Intersection Turning Movement Volumes				Project % of New Traffic
		Existing 2021	Opening Year (2023) With Project With Amphitheater Event	Project With Amphitheater Event	Total New[1]	
1. Indian Cyn Dr at Pierson Blvd	AM	936	1,373	12	437	2.7%
	PM	1,021	1,464	40	443	9.0%
	Mid-Day	734	1,184	35	450	7.8%
2. Indian Cyn Dr at Dillon Blvd	AM	1,394	2,837	40	1,443	2.8%
	PM	1,410	2,818	111	1,408	7.9%
	Mid-Day	1,006	2,485	88	1,479	5.9%
6. Indian Cyn Dr at 19th Ave	AM	1,338	2,826	290	1,488	19.5%
	PM	1,224	3,679	1,343	2,455	54.7%
	Mid-Day	848	3,426	1,345	2,578	52.2%
14. Little Morongo Rd at Dillon Rd	AM	1,138	3,155	15	2,017	0.7%
	PM	1,094	2,861	52	1,767	2.9%
	Mid-Day	728	2,300	48	1,572	3.1%

Notes:

(1) New Traffic = Opening Year (2023) With Project With Amphitheater Event Traffic - Existing Traffic

Table 10

Project Trip Generation Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan

Project Plan	Weekday AM Peak			Weekday PM Peak			Weekday Daily	Saturday Mid-Day Peak			Saturday Daily
	In	Out	Total	In	Out	Total		In	Out	Total	
Previously Approved 2017 Specific Plan	210	41	251	118	225	343	3,456	Not Analyzed			
Proposed 2021 Specific Plan Without Event	258	75	333	172	276	448	4,919	174	201	375	3,588
Proposed 2021 Specific Plan With Amphitheater Event	258	75	333	1,022	426	1,448	7,419	334	1,106	1,440	6,088
Project Trip Difference Without Event	+48	+34	+82	+54	+51	+105	+1,463	Not Applicable			
Project Trip Difference With Amphitheater Event	+48	+34	+82	+904	+201	+1,105	+3,963	Not Applicable			

Table 11 (1 of 3)

Intersection Improvement Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan

Intersection	Previously Approved 2017 Specific Plan	Proposed 2021 Specific Plan Without Event	Difference in Intersection Improvements	
			Plus Project Without Event	Plus Project With Amphitheater Event[1]
1. Indian Cyn Dr at Pierson Blvd	No Improvements	New Traffic Signal NB Left Turn SB Left Turn EB Left Turn WB Left Turn	+ New Traffic Signal + NB Left Turn + SB Left Turn + EB Left Turn + WB Left Turn	+ New Traffic Signal + NB Left Turn + SB Left Turn + EB Left Turn + WB Left Turn
2. Indian Cyn Dr at Dillon Blvd	New Traffic Signal 2nd NB Thru 2nd SB Thru	New Traffic Signal NB Left Turn SB Left Turn EB Left Turn 2 WB Left Turn NB Right Turn Overlap	Same Traffic Signal - No 2nd NB Thru - No 2nd SB Thru + NB Left Turn + SB Left Turn + EB Left Turn + 2 WB Left Turn + NB Right Turn Overlap	Same as 2017 Specific Plan - No 2nd NB Thru - No 2nd SB Thru + NB Left Turn + SB Left Turn + EB Left Turn + 2 WB Left Turn + NB Right Turn Overlap
3. Indian Cyn Dr at 18th Ave	WB Stop Sign NB Right Turn SB Left Turn Restrict WB Left Turn WB Right Turn Lane	WB Stop Sign NB Right Turn SB Left Turn Restrict WB Left Turn WB Right Turn Lane	All improvements same as 2017 Specific Plan	All improvements same as 2017 Specific Plan
4. Project Dwy at 18th Ave	NB Stop Sign NB Left/Right Turn EB Thru/Right WB Left/Thru	NB Stop Sign NB Left/Right Turn EB Thru/Right WB Left/Thru	All improvements same as 2017 Specific Plan	All improvements same as 2017 Specific Plan
5. Indian Cyn Dr at Project Dwy	New Traffic Signal SB Left Turn WB Left/Right Turn 2nd NB Thru	New Traffic Signal SB Left Turn WB Left/Right Turn	Same Traffic Signal Same improvements Same improvements - No 2nd NB Thru	Same Traffic Signal Same improvements Same improvements - No 2nd NB Thru

Table 11 (2 of 3)

Intersection Improvement Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan

Intersection	Previously Approved 2017 Specific Plan	Proposed 2021 Specific Plan Without Event	Difference in Intersection Improvements	
			Plus Project Without Event	Plus Project With Amphitheater Event[1]
6. Indian Cyn Dr at 19th Ave	WB Stop Sign SB Left Turn Restrict East/West Left Turn WB Right Turn	WB Stop Sign SB Left Turn Restrict EB/WB Left Turn WB Right Turn 2nd NB/SB Thru	Same Stop Sign Same improvements Same improvements Same improvements + 2nd NB/SB Thru	Same Stop Sign Same improvements Same improvements Same improvements + 2nd NB/SB Thru + Manual Traffic Control
7. Indian Cyn Dr at 20th Ave	No Improvements	No Improvements	Same	Same
8. I-10 WB Ramps at 20th Ave	No Improvements	No Improvements	Same	Same
9. I-10 EB Ramps at Garnet Ave	No Improvements	No Improvements	Same	Same
10. Indian Cyn Dr at Garnet Ave	No Improvements	No Improvements	Same	Same
11. Indian Cyn Dr at Tramview Rd	Restrict EB Left	No Improvements	- No EB Left Restriction	- No EB Left Restriction
12. Indian Cyn Dr at San Rafael Dr	No Improvements	No Improvements	Same	Same
13. Indian Cyn Dr at Racquet Club Rd	No Improvements	No Improvements	Same	Same
14. Little Morongo Rd at Dillon Rd	Not Analyzed	New Traffic Signal NB Left Turn SB Left Turn SB Right Turn with Overlap 2nd EB Left Turn WB Right Turn with Overlap	+ New Traffic Signal + NB Left Turn + SB Left Turn + SB Right Turn with Overlap + 2nd EB Left Turn + WB Right Turn with Overlap	+ New Traffic Signal + NB Left Turn + SB Left Turn + SB Right Turn with Overlap + 2nd EB Left Turn + WB Right Turn with Overlap + Manual Traffic Control

Table 11 (3 of 3)

Intersection Improvement Comparison Between Previously Approved 2017 Specific Plan and Proposed 2021 Specific Plan

Intersection	Previously Approved 2017 Specific Plan	Proposed 2021 Specific Plan Without Event	Difference in Intersection Improvements	
			Plus Project Without Event	Plus Project With Amphitheater Event[1]
15. Project Dwy at 19th Ave	Not Analyzed	SB Stop Sign SB Left/Right Turn EB Left/Thru WB Thru/Right	+ SB Stop Sign + SB Left/Right Turn + EB Left/Thru + WB Thru/Right	+ SB Stop Sign + SB Left/Right Turn + EB Left/Thru + WB Thru/Right + Manual Traffic Control
16. Indian Cyn Dr at Parcel 30 Dwy	Not Analyzed	WB Stop Sign WB Right Turn	+ WB Stop Sign + WB Right Turn	+ WB Stop Sign + WB Right Turn
17. Indian Cyn Dr at Parcel 31 Dwy	Not Analyzed	WB Stop Sign WB Right Turn	+ WB Stop Sign + WB Right Turn	+ WB Stop Sign + WB Right Turn + Manual Traffic Control

Notes:

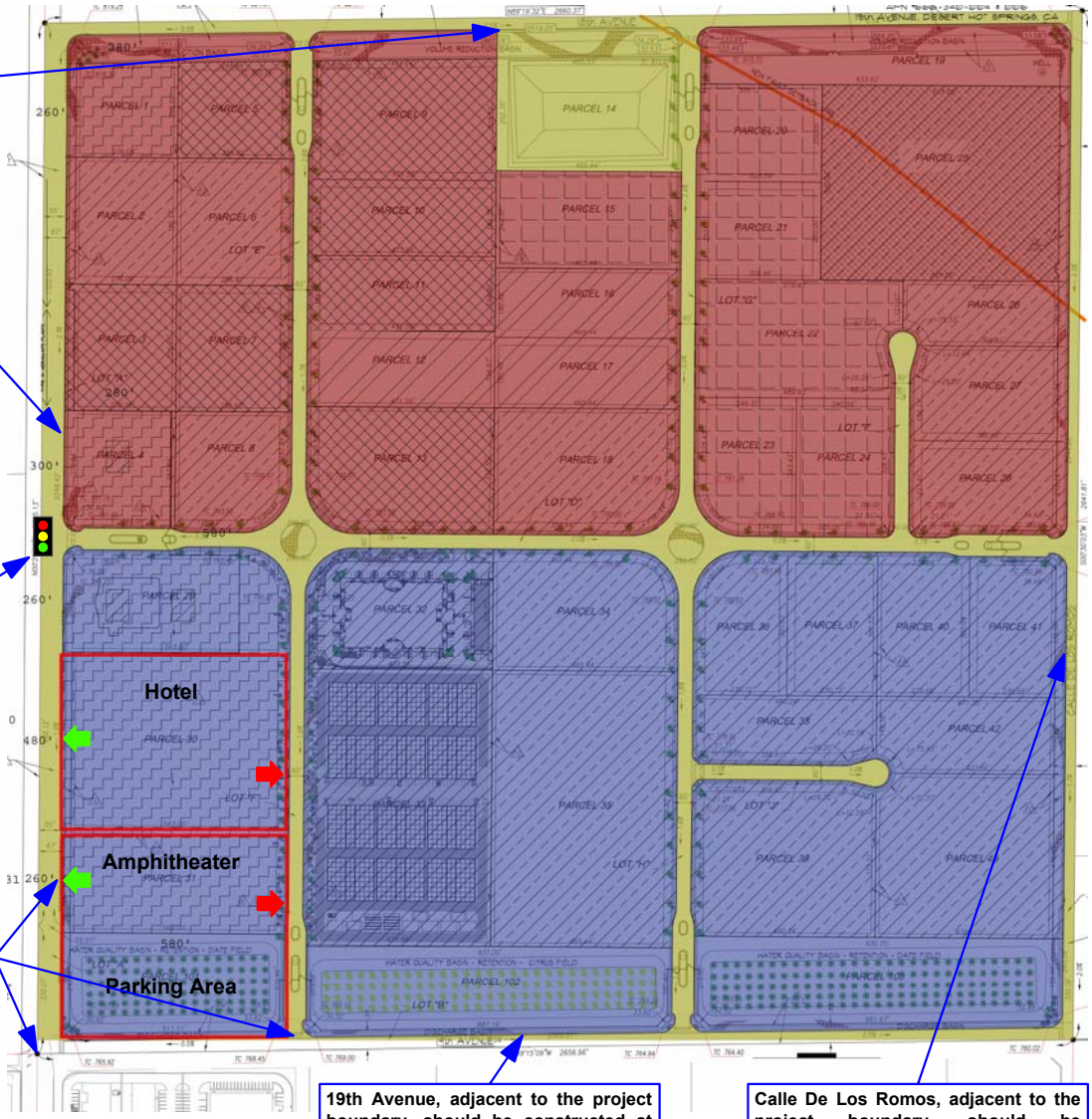
(1) Mitigation measures are the same between the Opening Year With Project "Without Event" conditions and the the Opening Year With Project "With Amphitheater Event" conditions, except for the locations where Manual Traffic Control [MTC] are implemented during the Amphitheater Event at Intersections 6, 14, 15 and 17.

18th Avenue, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

Indian Canyon Drive, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

Install a traffic signal at the intersection of Indian Canyon Drive and Project Driveway.

Manual traffic control should be provided to facilitate the temporary surge in circulation and parking demand during an amphitheater event at the following intersections, for conditions with Amphitheater Event.



19th Avenue, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

Calle De Los Romos, adjacent to the project boundary, should be constructed at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development per City standards.

All roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project should be constructed in accordance with applicable engineering standards and to the satisfaction of the City of Desert Hot Springs.

Site-adjacent roadways should be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Desert Hot Springs.

On-site traffic signing and striping plans should be submitted for City of Desert Hot Springs approval in conjunction with detailed construction plans for the project.

The final grading, landscaping, and street improvement plans should demonstrate that sight distance standards are met in accordance with applicable City of Desert Hot Springs/California Department of Transportation sight distance standards.

As is the case for any roadway design, the City of Desert Hot Springs should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

N

Legend

- Right Turns In/Out Only Access Driveway
- Full Access Driveway
- Traffic Signal

Figure 49
Circulation Recommendations

APPENDICES

Appendix A Glossary

Appendix B Scoping Agreement

Appendix C Volume Count Worksheets

Appendix D Level of Service Worksheets

Appendix E Traffic Signal Warrant Analysis

APPENDIX A

GLOSSARY

GLOSSARY OF TERMS

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
LOS	Level of Service
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CONTROL DELAY: The component of delay, typically expressed in seconds per vehicle, resulting from the type of traffic control at an intersection. Control delay is measured by comparison with the uncontrolled condition; it includes delay incurred by slowing down, stopping/waiting, and speeding up.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.

CYCLE LENGTH: The time period in seconds required for a traffic signal to complete one full cycle of indications.

CUL-DE-SAC: A local street open at one end only and with special provisions for turning around.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENT (PCE): A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SHARED/RECIPROCAL PARKING AGREEMENT: A written binding document executed between property owners to provide a designated number of off-street parking stalls within a designated area to be available for specified businesses or land uses.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queueing to occur.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

SCOPING AGREEMENT

SCOPE AND ASSUMPTIONS FOR TRAFFIC IMPACT ANALYSIS

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. The analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated April 2008.

Project Name: Coachillin' Industrial Park Parcel 30 and Parcel 31 Traffic Impact Analysis

Project Address: East of Indian Canyon Drive between 18th Avenue and 19th Avenue (See attached Figure 1)

Project Description: The Coachillin' Industrial Park was approved in 2017. The overall project site for approved Coachillin' Industrial Park consists of developing the currently vacant project site with approximately 3,000,000 square feet of building envelope grow site for cannabis cultivation, processing, and distribution uses. The proposed industrial park project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day (See attached Figure 2 – Site Plan). The applicant is proposing to modify a small portion of the approved Coachillin' Industrial Park within Parcel 30 and Parcel 31. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater. (See Appendix C for additional details for the project site plans). To be conservative, a higher project quantity of 175 hotel rooms is assumed for Parcel 30 even though the site plan shows less rooms.

Trip Generation Source: The approved 2017 traffic study estimated the trip generation for the approved Coachillin' Industrial Park project based upon customized trip rates developed using the proposed project operational characteristics provided by the applicant. The trip generation for the proposed 175-room hotel in Parcel 30 will be based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017 (See attached Table 1). For the proposed 5,000-seat amphitheater in Parcel 31, the trip generation will be based on the operational characteristics.

In the approved 2017 traffic study, the trip rates for the Coachillin' Industrial Park project were developed based on based on surveys from lot owners at their proposed operations, which includes information in regards to building envelope square footage, number of employees, shifts, visitors, deliveries, and hours of operation. Appendix A shows the detailed trip generation calculations in the development of the customized trip rates. The sample survey included operational data for Lots 1, 2, 5, 6, 7, 8, 13, 17, and 22. Adjustments have been made for employee shift changes and deliveries occurring during off-peak periods that are outside of the typical morning peak period between 7:00 AM and 9:00 AM and the typical afternoon peak period between 4:00 PM and 6:00 PM. An off-peak reduction adjustment of 85% was made to employee and delivery trips for the morning and afternoon peak hours while no reduction adjustment was made to the visitor trips. The applicant is committed to minimize the project's traffic impact to the surrounding roadway network during the typical morning and evening peak periods by scheduling a minimum of 85% of their employee shift changes to occur during the off-peak periods.

Two trip generation rates were estimated: one was based on building envelope square footage and the other one was based on number of employees. It appears that the employee-based trip generation rates are more reasonable such that it is more likely that the project will generate in the order of magnitude of 3,000 daily trips based on 1,510 employees. The square footage-based trip rates seem to overstate the daily trips with more than 5,000 daily trips. Since most of the project trips will be generated by the employees, it is unlikely that a development with only 1,510 employees will generate 5,000 daily trips.

The applicant is proposing to modify a small portion of the approved Coachillin' Industrial Park within Parcel 30 and Parcel 31. Parcel 30 will include a 175-room hotel. Parcel 31 will include a 5,000-seat amphitheater. For the proposed amphitheater in Parcel 31, the frequency of concerts and special events is a maximum of 3 events per week that may occur during the weekends or the weekdays at a maximum of one event per day.

For the amphitheater event trip generation assumptions, a maximum of one event per day is assumed with 4 attendees (seats) riding in each vehicle which one vehicle generates 2 trip-ends per day [(1 vehicle / 4 seat) x 2 trips = 0.500 trips per seat]. No event during the weekday AM peak hour. For a weekday afternoon event, 80% of the attendees arrive during the weekday PM peak hour [(1 vehicle / 4 seat) x 80% = 0.200 PM trips per seat] with a directional split of 85% inbound and 15% outbound. For a Saturday event, 85% of the attendees arrive during the Saturday mid-day peak hour [(1 vehicle / 4 seat) x 85% = 0.213 mid-day trips per seat] with a directional split of 15% inbound and 85% outbound.

Existing Land Use: Vacant
Current Zoning: Mixed Use

Proposed Land Use: Mixed Use
Proposed Zoning: Mixed Use

Proposed Trip Generation – See attached Table 1

	Proposed Trip Generation (without Event)			Proposed Trip Generation (with Event)		
	In	Out	Total	In	Out	Total
Weekday AM	258	75	333	258	75	333
Weekday PM	172	276	448	1,022	426	1,448
Saturday MD	174	201	375	334	1,106	1,440
Total Weekday Daily Project Trips:	4,949 (without Event)				7,419 (with Event)	
Total Saturday Daily Project Trips:	3,588 (without Event)				6,088 (with Event)	
Internal Trip Allowance	Yes	No	(_____% Trip Discount)			
Pass-By Trip Allowance	Yes	No	(_____% Trip Discount)			

Trip Geographic Distribution: See attached Figures 3 through Figure 8
The project site is proposed to provide access to 18th Avenue north of the project, Indian Canyon Drive west of the project and 19th Avenue south of the project. A traffic control management will be implemented during the events for the amphitheater with manual traffic control at 19th Avenue and the Parcel 31 driveway.

Project Completion Year: 2021

Annual Background Growth Rate: 2.0%

Other area projects to be considered: A recent cumulative development list (see Appendix B) will be utilized to estimate the other development traffic.

Analysis Conditions:
1. Existing (2019)
2. Existing (2019) Plus Project Without Amphitheater Event
3. Existing (2019) Plus Project With Amphitheater Event
4. Opening Year (2021) Without Project
5. Opening Year (2021) With Project Without Amphitheater Event
6. Opening Year (2021) With Project With Amphitheater Event

Study Intersections: See attached Exhibit 1
1. Indian Canyon Drive (NS) @ Pierson Boulevard (EW) – 4/10/2019 AM & PM; 8/24/2019 Sat MD counts
2. Indian Canyon Drive (NS) @ Dillon Boulevard (EW) – 4/10/2019AM & PM; 8/24/2019 Sat MD counts
3. Indian Canyon Drive (NS) @ 18th Avenue (EW) – future intersection
4. Coachillin' Project Driveway (NS) @ 18th Avenue (EW) – future intersection
5. Indian Canyon Drive (NS) @ Coachillin' Project Driveway (EW) – future intersection
6. Indian Canyon Drive (NS) @ 19th Avenue (EW) – 8/22/2019AM & PM; 8/24/2019 Sat MD counts
7. Indian Canyon Drive (NS) @ 20th Avenue (EW) – 4/10/2019 AM & PM; 8/24/2019 Sat MD counts
8. I-10 Westbound Ramps (NS) @ 20th Avenue (EW) – 4/10/2019 AM & PM; 8/24/2019 Sat MD counts
9. I-10 Eastbound Ramps (NS) @ Garnet Avenue (EW) – 4/10/2019 AM & PM; 8/24/2019 Sat MD counts
10. Indian Canyon Drive (NS) @ Garnet Avenue (EW) – 4/10/2019 AM & PM; 8/24/2019 Sat MD counts
11. Indian Canyon Drive (NS) @ Tramview Road (EW) – 8/22/2019AM & PM; 8/24/2019 Sat MD counts
12. Indian Canyon Drive (NS) @ San Rafael Drive (EW) – 8/22/2019AM & PM; 8/24/2019 Sat MD counts
13. Indian Canyon Drive (NS) @ Racquet Club Road ((EW) – 8/22/2019AM & PM; 8/24/2019 Sat MD counts
14. Little Morongo Road (NS) @ Dillon Road (EW) – new counts
15. Coachillin' Project Driveway (NS) @ 19th Avenue (EW) – future intersection
16. Indian Canyon Drive (NS) @ Parcel 30 Driveway (EW) – future intersection
17. Indian Canyon Drive (NS) @ Parcel 31 Driveway (EW) – future intersection

Existing Count Dates: See Figure 1. Most of the weekday AM and PM peak hour counts were collected in 4/10/2019, except for five locations (#6, #11, #12, #13 and #14) where new 2019 counts will be collected. For Saturday mid-day peak hour conditions, new 2019 counts will be collected during the weekends.

	Consultant	Developer
Name:	Ganddini Group, Inc.	EcoMaster Corporation
	Tom Huang, TE, Senior Engineer	Kenny Dickerson
Address:	550 Parkcenter Drive, Suite 202	71713 Highway 111, Suite 100
	Santa Ana, CA 92705	Rancho Mirage, CA 92270
Telephone:	(714) 795-3100 x102	(760) 775-4000
Email:	tom@ganddini.com	kenny@ecomastercorp.com

Prepared By:



Tom Huang, TE
Consultant's Representative Date 10/04/2019

Approved By:

City Representative Date_____

JN 19-0174

Table 1
Project Trip Generation

Trip Generation Rates[1]														
Project				Weekday AM Peak			Weekday PM Peak			Weekday Daily	Saturday Mid-Day Peak			Saturday Daily
No.	Land Use	Code[1]	Unit[2]	In%	Out%	Total	In%	Out%	Total		In%	Out%	Total	
1	Coachillin Industrial Park Cultivation Building Envelope	Survey[3]	TSF	84%	16%	0.111	40%	60%	0.158	1.689	43%	57%	0.124	1.190
2	Coachillin Industrial Park Cultivation Employees	Survey[3]	EMP	84%	16%	0.166	34%	66%	0.227	2.289	41%	59%	0.165	1.427
3	Hotel	ITE 310	RM	59%	41%	0.470	51%	49%	0.600	8.360	56%	44%	0.720	8.190
4	Professional Baseball Stadium	ITE 462	ATT	75%	25%	0.020	12%	88%	0.150	1.240	7%	93%	0.230	1.240
5	Outdoor Stadium	SANDAG[4]	SEAT	75%	25%	0.003	12%	88%	0.024	0.200	7%	93%	0.037	0.200
6	Amphitheater Event	Project[5]	SEAT	0%	0%	0.000	85%	15%	0.200	0.500	15%	85%	0.213	0.500

Trips Generated														
Project			Weekday AM Peak			Weekday PM Peak			Weekday Daily	Saturday Mid-Day Peak			Saturday Daily	
No.	Land Use	Quantity[2]	In	Out	Total	In	Out	Total		In	Out	Total		
A	Coachillin Industrial Park Cultivation Building Envelope	3,000.000 TSF	279	54	333	189	285	474	5,067	159	213	372	3,570	
B	Coachillin Industrial Park Cultivation Employees	1,510 EMP	210	41	251	118	225	343	3,456	103	146	249	2,155	
C	Hotel	175 RM	48	34	82	54	51	105	1,463	71	55	126	1,433	
D	Professional Baseball Stadium	5,000 ATT	75	25	100	90	660	750	6,200	80	1,070	1,150	6,200	
E	Outdoor Stadium	5,000 SEAT	10	5	15	15	105	120	1,000	15	170	185	1,000	
F	Amphitheater Event	5,000 SEAT	-	-	-	850	150	1,000	2,500	160	905	1,065	2,500	
Total Project Trips with Events (B+C+F)			258	75	333	1,022	426	1,448	7,419	334	1,106	1,440	6,088	
Total Project Trips without Events (B+C)			258	75	333	172	276	448	4,919	174	201	375	3,588	

Notes:

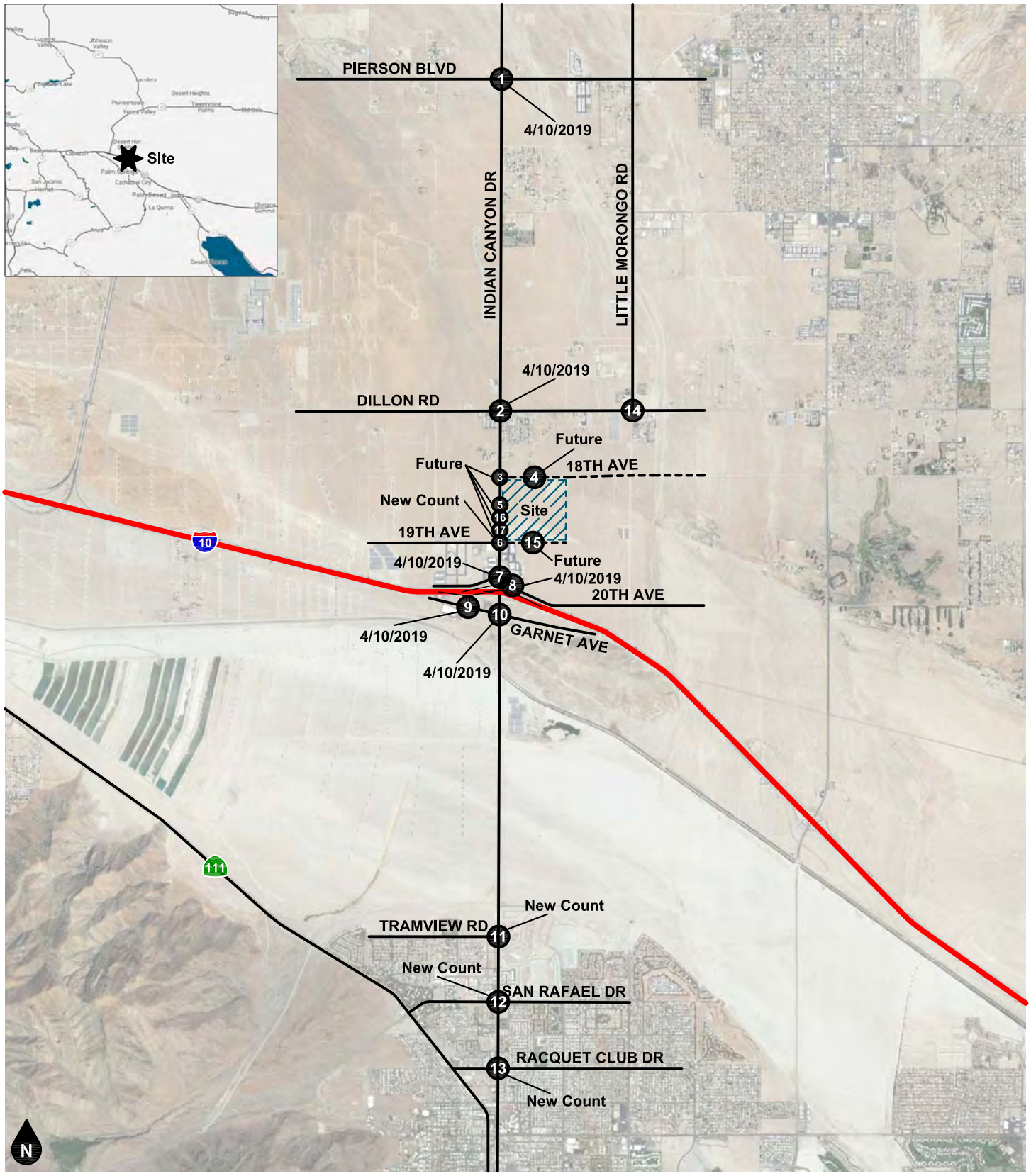
(1) Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition, 2012.

(2) TSF = Thousand Square Feet; EMP = Employees; ATT = Attendees; SEAT = Seats

(3) Customized trip generation rates estimated based on surveys from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation. Additional adjustments has been made for employee shift changes and deliveries occurring during street off-peak periods. See Appendix A.

(4) San Diego Association of Governments (SANDAG), Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

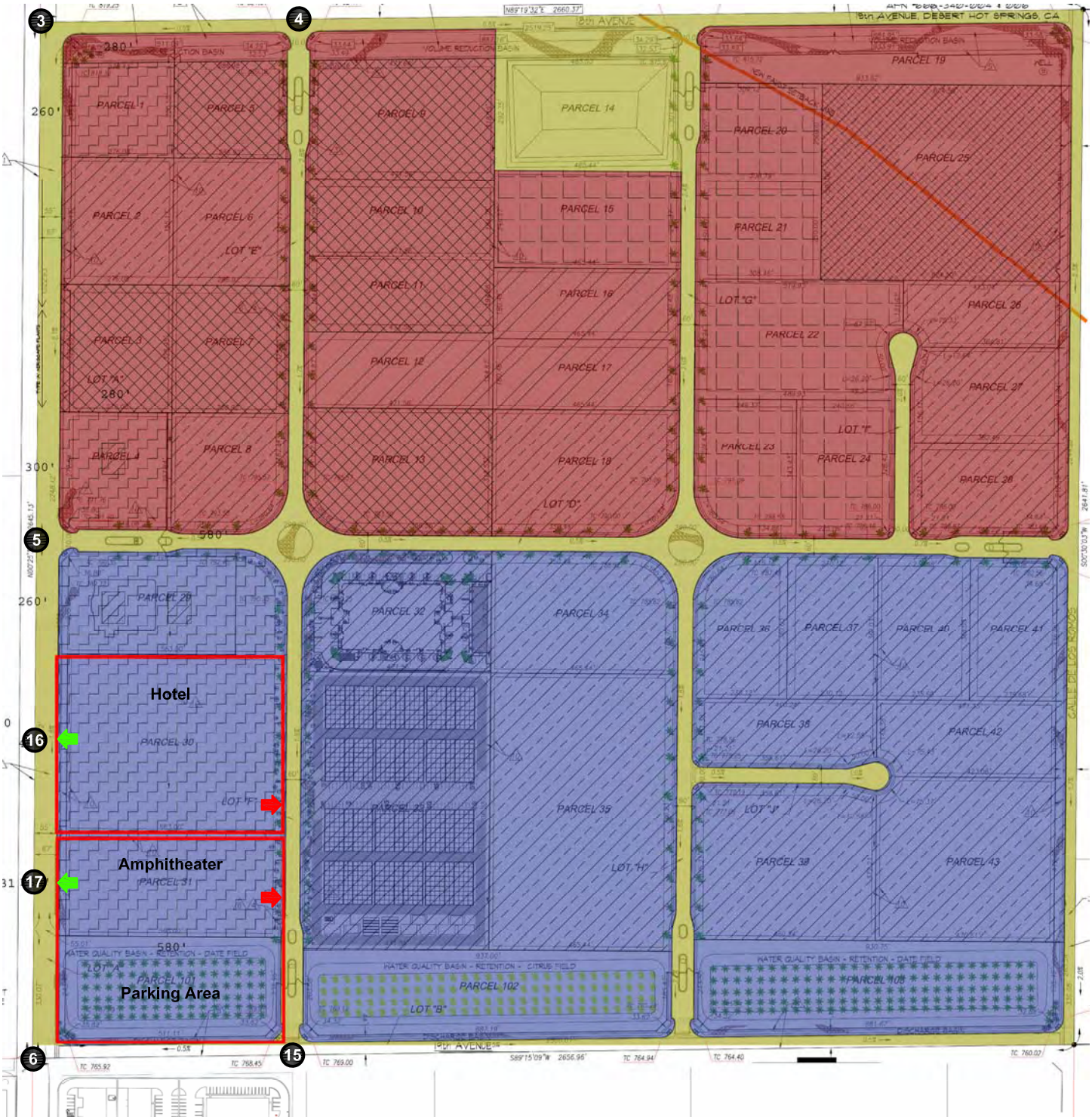
(5) A maximum of one event per day, 4 attendees (seats) riding in each vehicle which one vehicle generates 2 trip-ends per day [(1 vehicle / 4 seat) x 2 trips = 0.500 trips per seat]. No event during the weekday AM peak hour. For a weekday afternoon event, 80% of the attendees arrive during the weekday PM peak hour [(1 vehicle / 4 seat) x 80% = 0.200 PM trips per seat] with a directional split of 85% inbound and 15% outbound. For a Saturday event, 85% of the attendees arrive during the Saturday mid-day peak hour [(1 vehicle / 4 seat) x 85% = 0.213 mid-day trips per seat] with a directional split of 15% inbound and 85% outbound.



Legend

(#) Study Intersection

Figure 1
Project Location Map

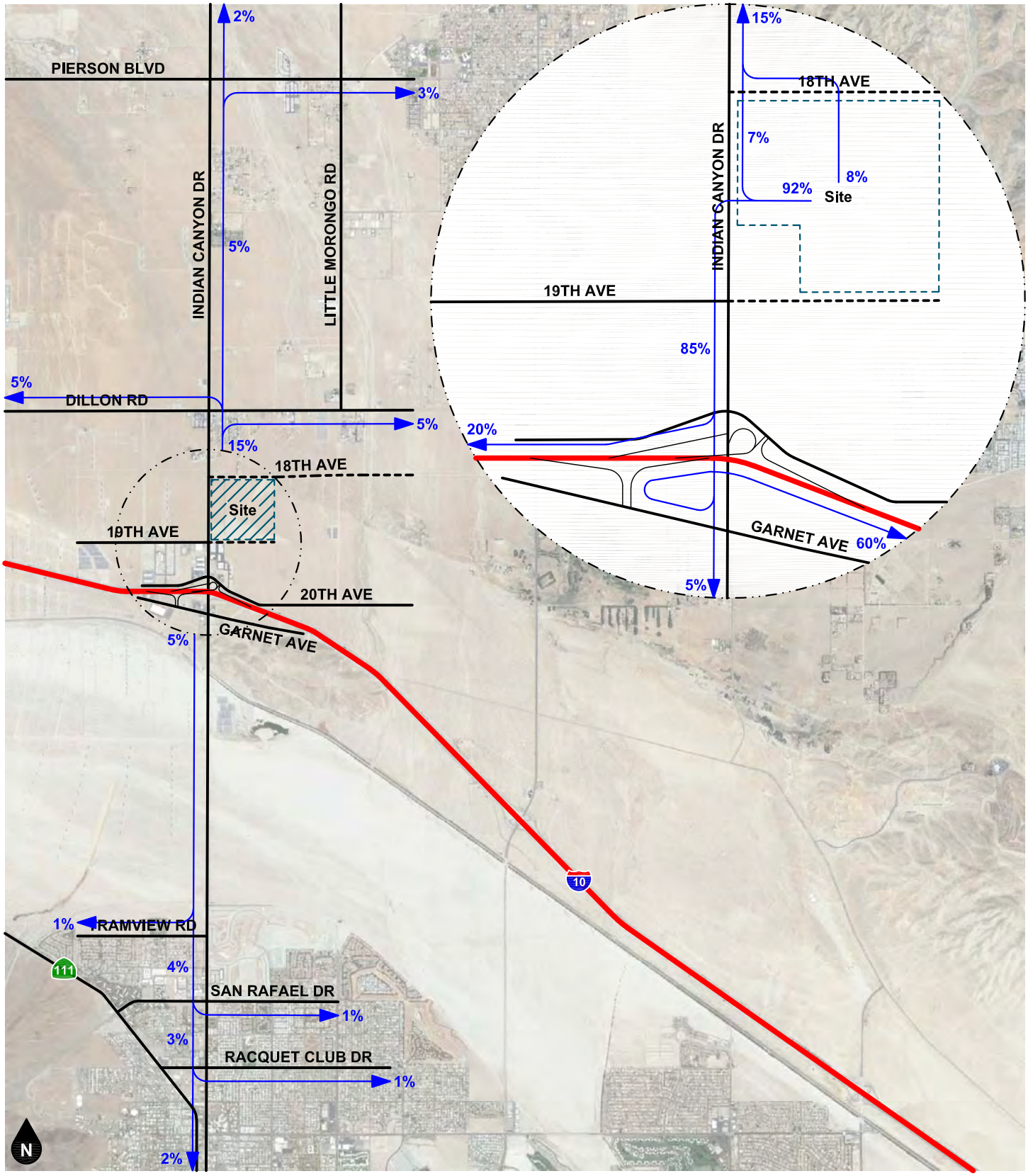


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Legend

- # Study Intersection
- Right Turns In/Out Only Access Driveway
- Full Access Driveway

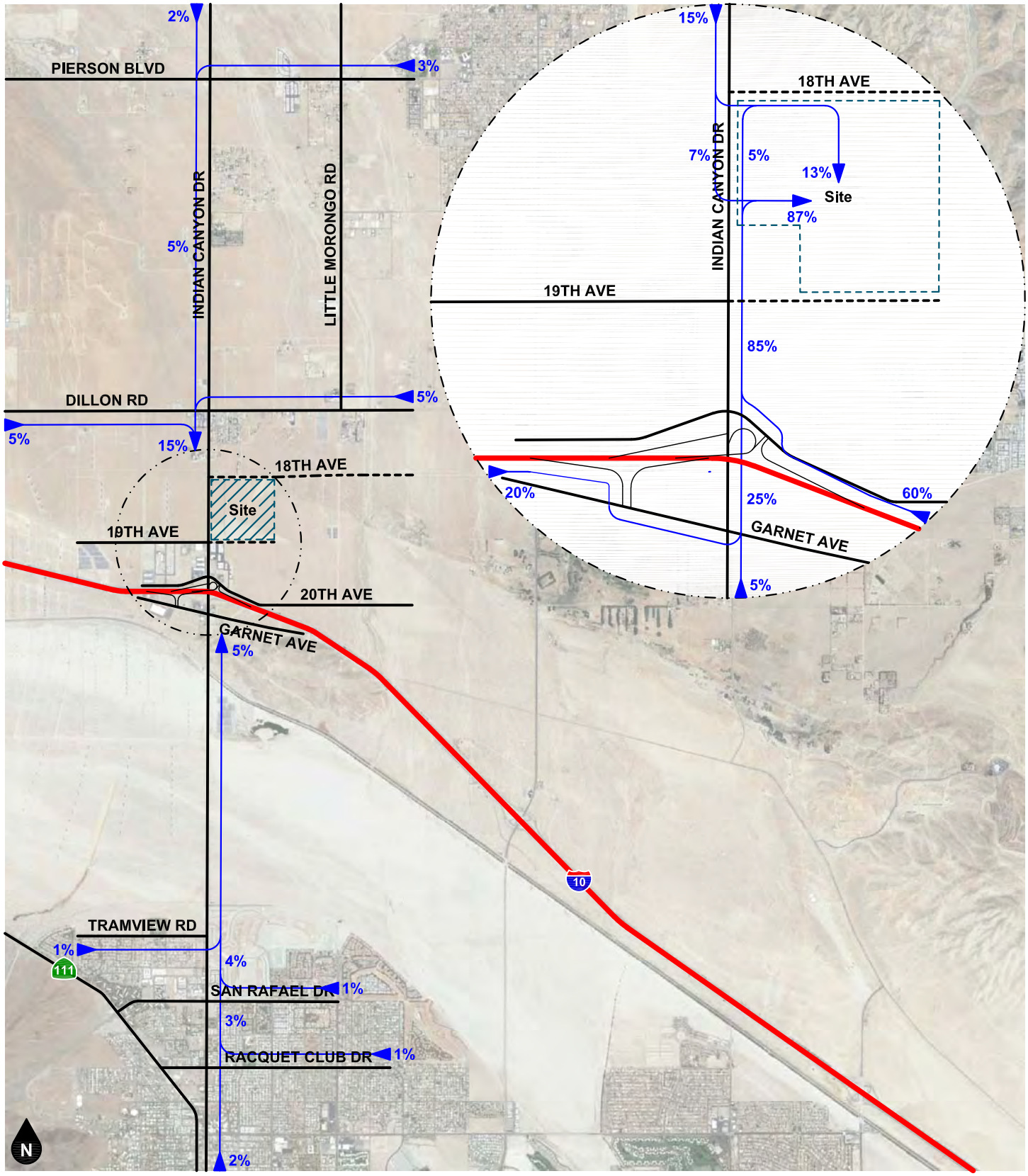
Figure 2
Site Plan



Legend

10% Percent From Project

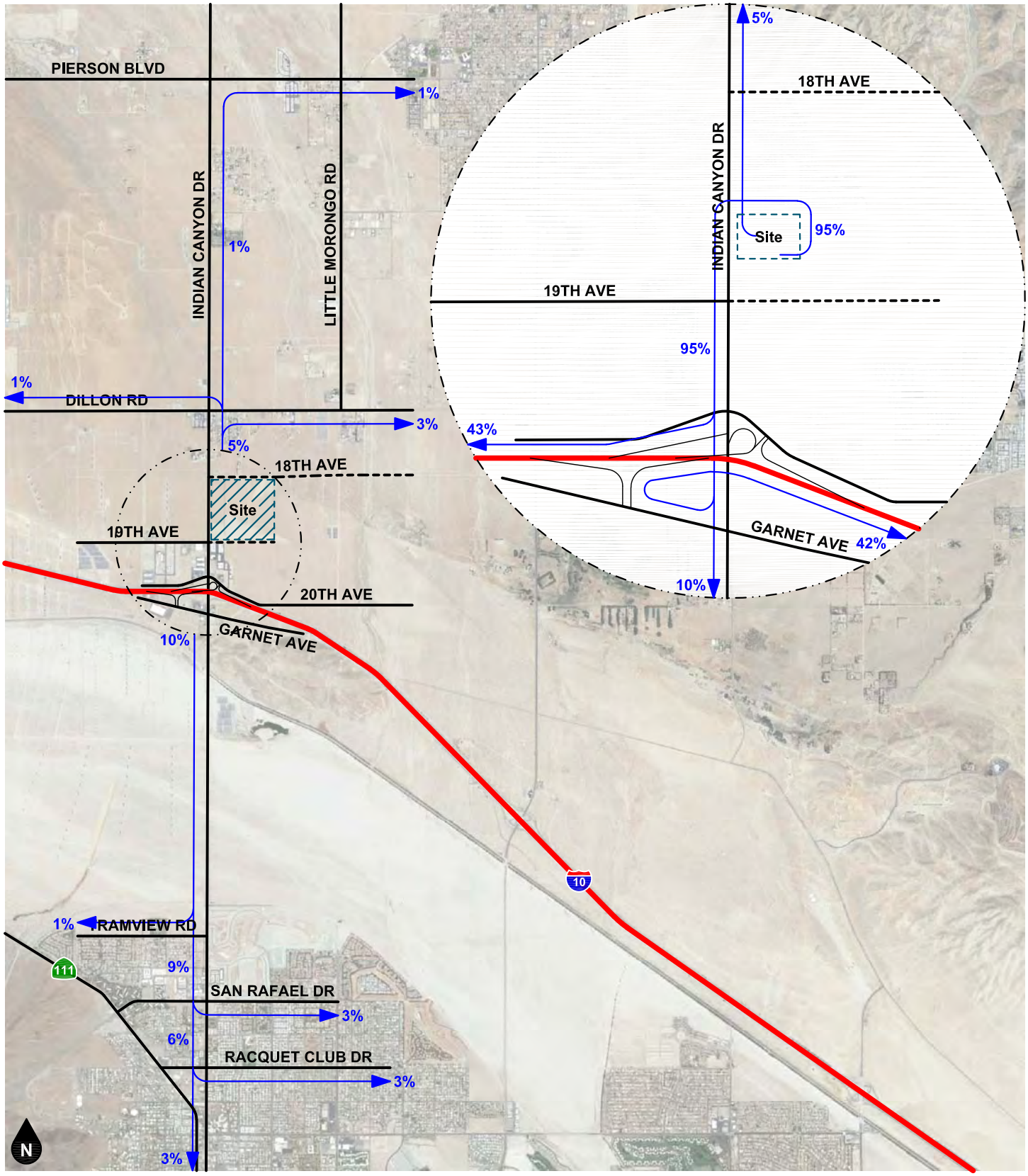
Figure 3
Project Industrial Outbound Trip Distribution



Legend

10% Percent To Project

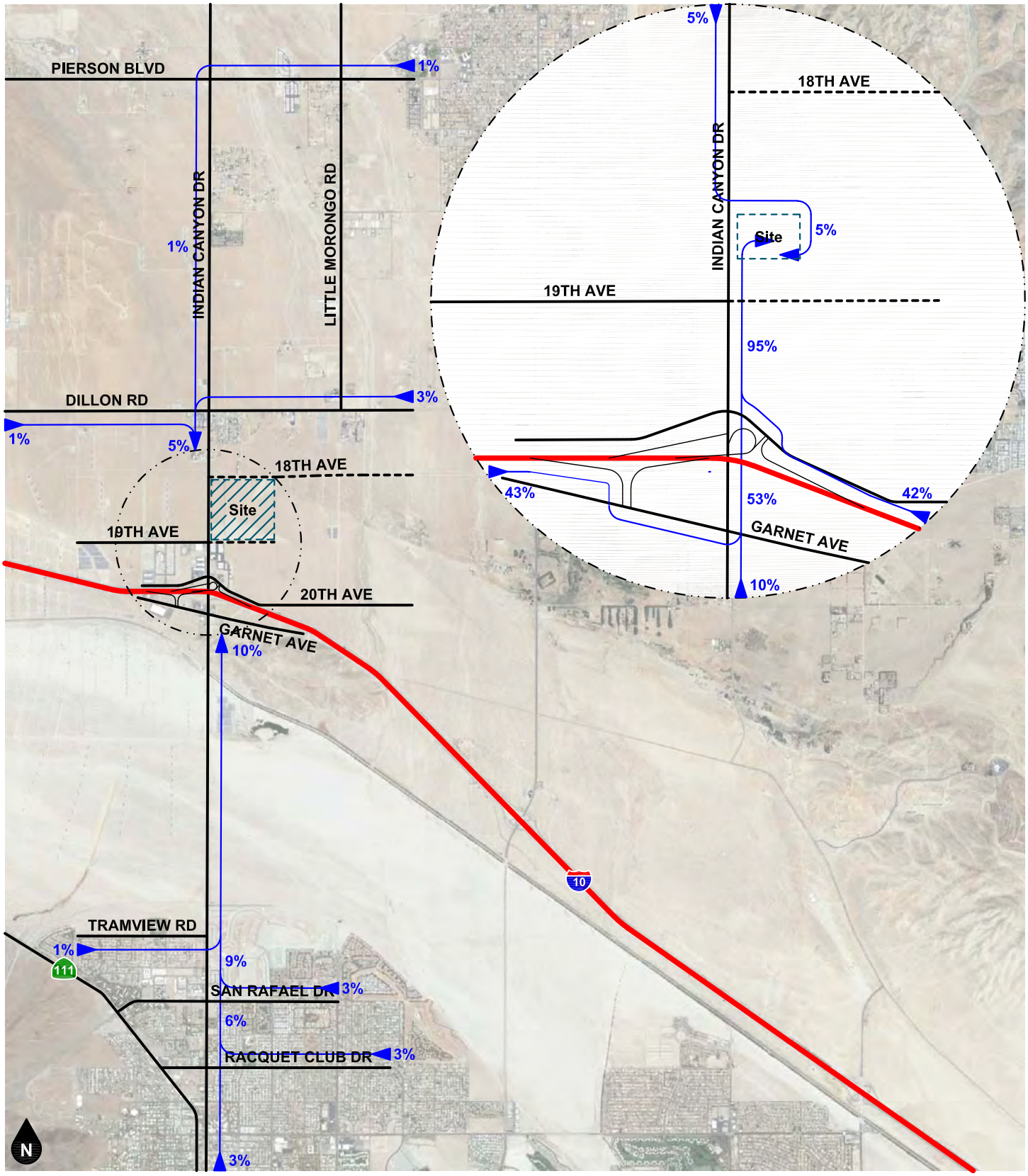
Figure 4
Project Industrial Inbound Trip Distribution



Legend

10% Percent From Project

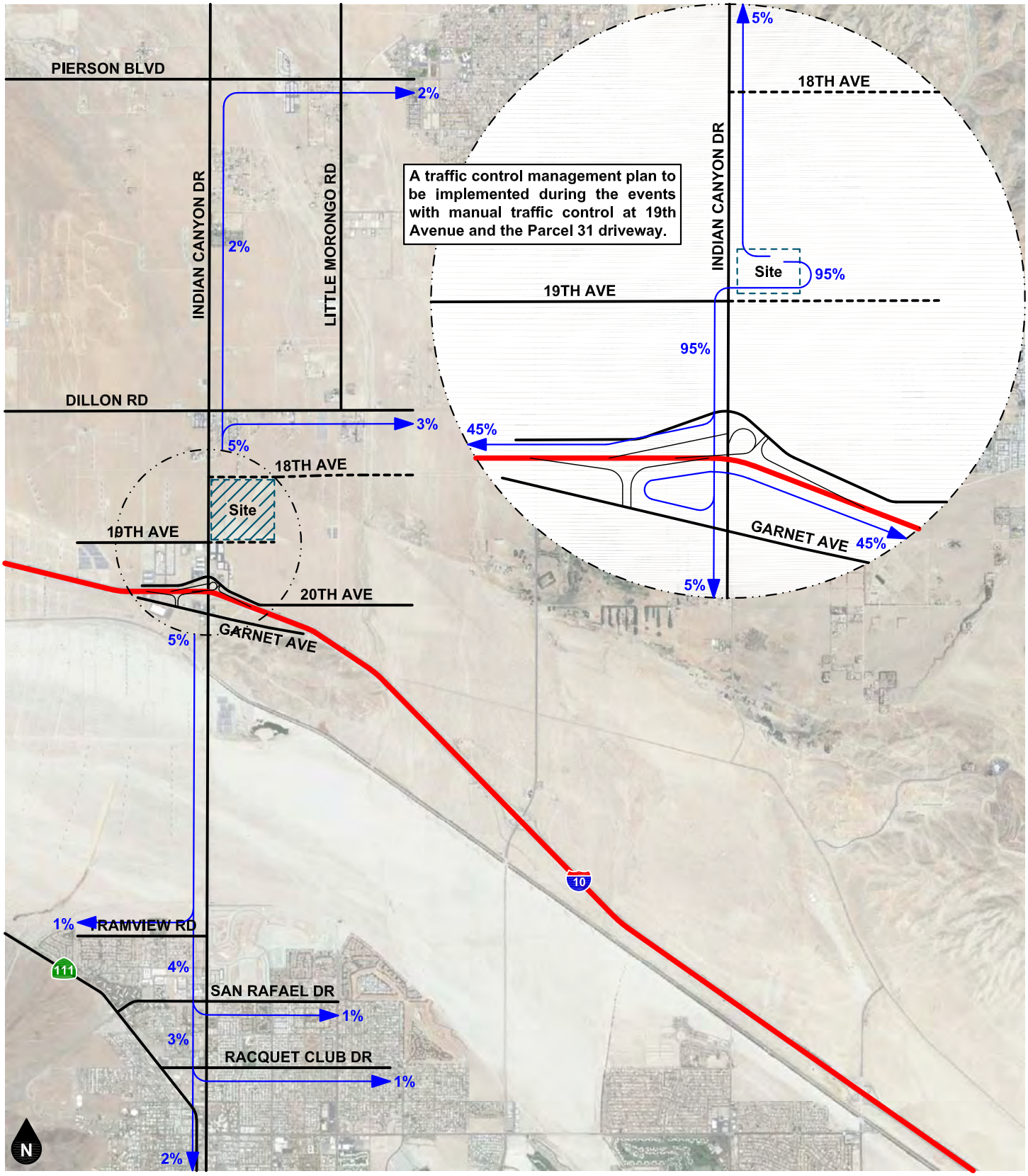
Figure 5
Project Hotel (Parcel 30) Outbound Trip Distribution



Legend

10% Percent To Project

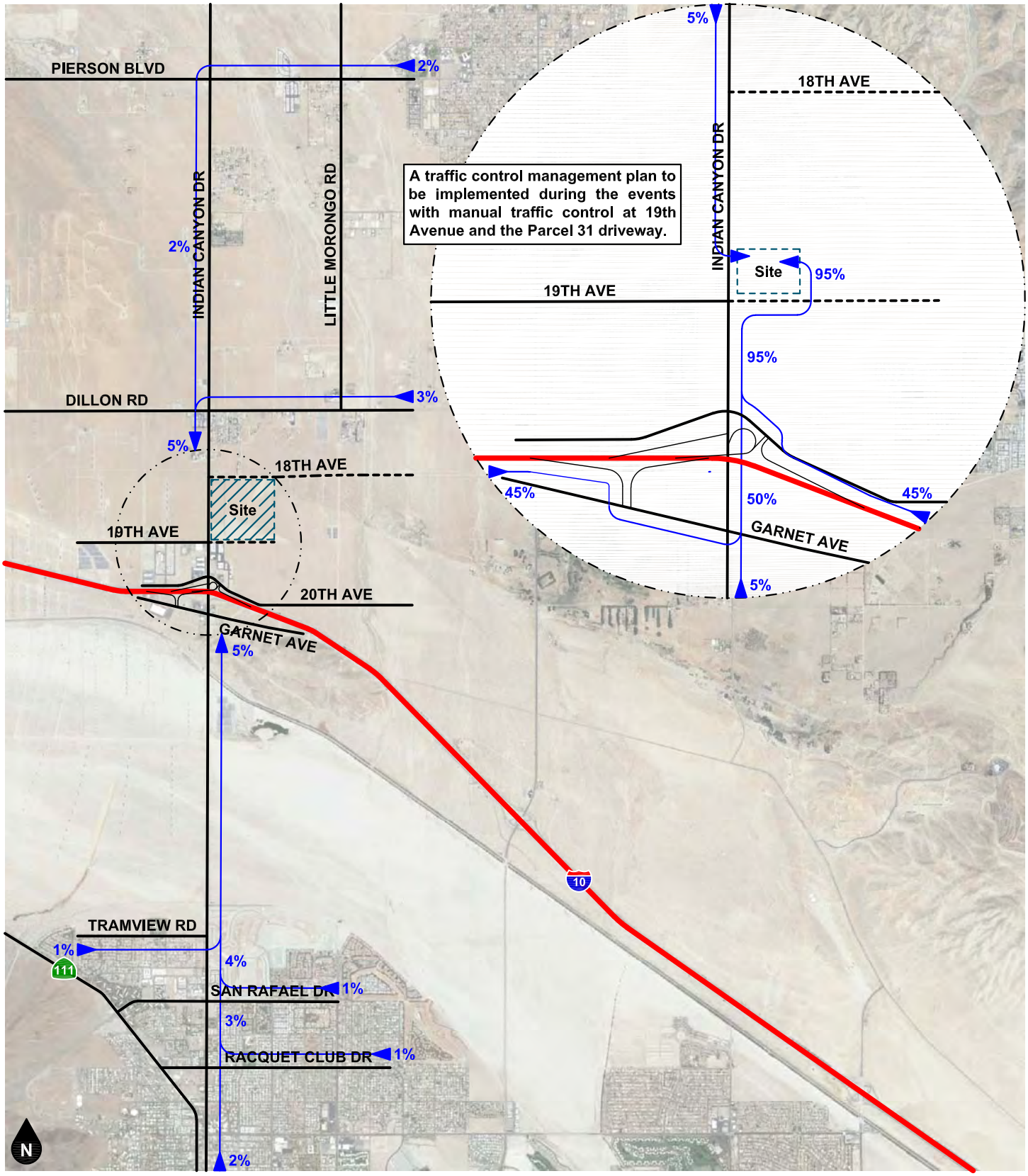
Figure 6
Project Hotel (Parcel 30) Inbound Trip Distribution



Legend

10% Percent From Project

Figure 7
Project Amphitheater (Parcel 31) Outbound Trip Distribution



Legend

10% Percent To Project

Figure 8
Project Amphitheater (Parcel 31) Inbound Trip Distribution

Appendix A

Proposed Operations Survey Data and Customized Trip Rate Calculations

Appendix A1 (1 of 2) - Weekday Trip Generation Rate Calculations Based on Operational Survey Data

Survey Site[1]			Employee Trips[1]								Visitor Trips[1]							Delivery Trips[1]						
			WD AM			WD PM					WD AM			WD PM				WD AM			WD PM			
Lot	Building Area (TSF[2])	Weekday Employee	In	Out	Total	In	Out	Total	Daily	Late Night	In	Out	Total	In	Out	Total	Daily	In	Out	Total	In	Out	Total	Daily
1	80.000	30	3	0.6	3.6	0.9	3	3.9	60	0	0	0	0	0	0	0	0	0.15	0.15	0.3	0.15	0.15	0.3	4
2	30.830	35	3	0	3	2.25	3	5.25	70	0	2	1	3	1	2	3	6	0.15	0.15	0.3	0.15	0.15	0.3	4
5	63.539	65	4.5	0	4.5	4.5	4.5	9	130	5	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
6	68.230	15	2.25	0	2.25	0	2.25	2.25	30	0	0	0	0	1	1	2	2	0	0	0	0.15	0.15	0.3	2
7	51.572	65	4.5	0	4.5	4.5	4.5	9	130	5	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
8	55.935	70	4.5	0	4.5	4.5	4.5	9	140	10	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
13 & 17	197.881	35	4.35	0	4.35	0	4.35	4.35	70	6	3	2	5	2	3	5	10	0.6	0.45	1.05	0.45	0.6	1.05	14
22	50.139	30	3	0	3	1.5	3	4.5	60	0	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
Overall Average	598.126	345	29.1	0.6	29.7	18.15	29.1	47.25	690	26	13	7	20	8	14	22	42	2.1	1.35	3.45	1.5	2.25	3.75	48
Weighted Average	74.766	43.125	3.64	0.08	3.71	2.27	3.64	5.91	86.25	3.25	1.63	0.88	2.50	1.00	1.75	2.75	5.25	0.26	0.17	0.43	0.19	0.28	0.47	6.00
Off-Peak Reduction[3]			85%	85%	85%	85%	85%	85%	0%	0%	0%	0%	0%	0%	0%	0%	0%	85%	85%	85%	85%	85%	85%	0%

Notes:

[1] Survey data from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation.

[2] TSF = Thousand Square Feet; EMP = Employees

[3] Off-Peak reduction adjustments has been made to for employee shift changes and deliveries occuring during street off-peak periods that are outside of 7-9 AM and 4-6 PM. Visitor traffic will occur during peak hours.

Appendix A1 (2 of 2) - Weekday Trip Generation Rate Calculations Based on Operational Survey Data

Survey Site[1]			Estimated Trip Rates by Building Envelope (TSF[2])							Estimated Trip Rates by Employee (EMP[2])						
			WD AM			WD PM				WD AM			WD PM			
Lot	Building Area (TSF[2])	Weekday Employee	In	Out	Total	In	Out	Total	Daily	In	Out	Total	In	Out	Total	Daily
1	80.000	30	0.039	0.009	0.048	0.013	0.039	0.052	0.800	0.105	0.025	0.130	0.035	0.105	0.140	2.133
2	30.830	35	0.167	0.037	0.204	0.110	0.167	0.277	2.595	0.147	0.033	0.180	0.097	0.147	0.244	2.286
5	63.539	65	0.107	0.018	0.125	0.089	0.107	0.196	2.235	0.105	0.018	0.123	0.087	0.105	0.192	2.185
6	68.230	15	0.033	0.000	0.033	0.017	0.050	0.067	0.498	0.150	0.000	0.150	0.077	0.227	0.304	2.267
7	51.572	65	0.132	0.022	0.154	0.110	0.132	0.242	2.753	0.105	0.018	0.123	0.087	0.105	0.192	2.185
8	55.935	70	0.122	0.021	0.143	0.101	0.122	0.223	2.717	0.097	0.016	0.113	0.081	0.097	0.178	2.171
13 & 17	197.881	35	0.040	0.012	0.052	0.012	0.040	0.052	0.475	0.227	0.070	0.297	0.070	0.227	0.297	2.686
22	50.139	30	0.106	0.023	0.129	0.053	0.106	0.159	1.436	0.177	0.038	0.215	0.088	0.177	0.265	2.400
Overall Average	598.126	345	0.074	0.015	0.089	0.046	0.076	0.122	1.304	0.128	0.026	0.154	0.080	0.131	0.211	2.261
Weighted Average	74.766	43.125	0.093	0.018	0.111	0.063	0.095	0.158	1.689	0.139	0.027	0.166	0.078	0.149	0.227	2.289
Off-Peak Reduction[3]			80%	51%	78%	81%	80%	80%	0%	81%	59%	79%	78%	80%	79%	0%

Notes:

[1] Survey data from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation.

[2] TSF = Thousand Square Feet; EMP = Employees

[3] Off-Peak reduction adjustments has been made to for employee shift changes and deliveries occuring during street off-peak periods that are outside of 7-9 AM and 4-6 PM. Visitor traffic will occur during peak hours.

Appendix A2 (1 of 2) - Weekend Trip Generation Rate Calculations Based on Operational Survey Data

Survey Site[1]			Employee Trips[1]								Visitor Trips[1]							Delivery Trips[1]						
			WE AM			WE PM					WE AM			WE PM				WE AM			WE PM			
Lot	Building Area (TSF[2])	Weekend Employee	In	Out	Total	In	Out	Total	Daily	Late Night	In	Out	Total	In	Out	Total	Daily	In	Out	Total	In	Out	Total	Daily
1	80.000	30	1.5	0.3	1.8	0.6	1.5	2.1	32	0	0	0	0	0	0	0	0	0.15	0.15	0.3	0.15	0.15	0.3	4
2	30.830	35	2.25	0	2.25	2.25	2.25	4.5	60	0	2	1	3	1	2	3	6	0.15	0.15	0.3	0.15	0.15	0.3	4
5	63.539	65	3	0	3	3	3	6	90	5	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
6	68.230	15	0.15	0	0.15	0	0.15	0.15	2	0	0	0	0	1	1	2	2	0	0	0	0.15	0.15	0.3	2
7	51.572	65	3	0	3	3	3	6	90	5	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
8	55.935	70	3	0	3	3	3	6	90	5	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
13 & 17	197.881	35	1.2	0	1.2	0	1.2	1.2	28	6	3	2	5	2	3	5	10	0.6	0.45	1.05	0.45	0.6	1.05	14
22	50.139	30	1.5	0	1.5	1.5	1.5	3	40	0	2	1	3	1	2	3	6	0.3	0.15	0.45	0.15	0.3	0.45	6
Overall Average	598.126	345	15.6	0.3	15.9	13.35	15.6	28.95	432	21	13	7	20	8	14	22	42	2.1	1.35	3.45	1.5	2.25	3.75	48
Weighted Average	74.766	43.125	1.95	0.04	1.99	1.67	1.95	3.62	54.00	2.63	1.63	0.88	2.50	1.00	1.75	2.75	5.25	0.26	0.17	0.43	0.19	0.28	0.47	6.00
Off-Peak Reduction[3]			85%	85%	85%	85%	85%	85%	0%	0%	0%	0%	0%	0%	0%	0%	0%	85%	85%	85%	85%	85%	85%	0%

Notes:

[1] Survey data from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation.

[2] TSF = Thousand Square Feet; EMP = Employees

[3] Off-Peak reduction adjustments has been made to for employee shift changes and deliveries occuring during street off-peak periods that are outside of 7-9 AM and 4-6 PM. Visitor traffic will occur during peak hours.

Appendix A2 (2 of 2) - Weekend Trip Generation Rate Calculations Based on Operational Survey Data

Survey Site[1]			Estimated Trip Rates by Building Envelope (TSF[2])							Estimated Trip Rates by Employee (EMP[2])						
			WE AM			WE PM				WE AM			WE PM			
Lot	Building Area (TSF[2])	Weekend Employee	In	Out	Total	In	Out	Total	Daily	In	Out	Total	In	Out	Total	Daily
1	80.000	30	0.021	0.006	0.027	0.009	0.021	0.030	0.450	0.055	0.015	0.070	0.025	0.055	0.080	1.200
2	30.830	35	0.143	0.037	0.180	0.110	0.143	0.253	2.271	0.126	0.033	0.159	0.097	0.126	0.223	2.000
5	63.539	65	0.083	0.018	0.101	0.065	0.083	0.148	1.605	0.082	0.018	0.100	0.064	0.082	0.146	1.569
6	68.230	15	0.002	0.000	0.002	0.017	0.019	0.036	0.088	0.010	0.000	0.010	0.077	0.087	0.164	0.400
7	51.572	65	0.103	0.022	0.125	0.080	0.103	0.183	1.978	0.082	0.018	0.100	0.064	0.082	0.146	1.569
8	55.935	70	0.095	0.021	0.116	0.074	0.095	0.169	1.824	0.076	0.016	0.092	0.059	0.076	0.135	1.457
13 & 17	197.881	35	0.024	0.012	0.036	0.012	0.024	0.036	0.263	0.137	0.070	0.207	0.070	0.137	0.207	1.486
22	50.139	30	0.076	0.023	0.099	0.053	0.076	0.129	1.037	0.127	0.038	0.165	0.088	0.127	0.215	1.733
Overall Average	598.126	345	0.051	0.014	0.065	0.038	0.053	0.091	0.873	0.089	0.025	0.114	0.066	0.092	0.158	1.513
Weighted Average	74.766	43.125	0.068	0.017	0.085	0.053	0.071	0.124	1.190	0.087	0.026	0.113	0.068	0.097	0.165	1.427
Off-Peak Reduction[3]			77%	50%	74%	80%	76%	78%	0%	87%	74%	85%	89%	90%	89%	50%

Notes:

[1] Survey data from lot owners of their proposed operations, which includes information in regards to number of employees, shifts, visitors, deliveries, and hours of operation.

[2] TSF = Thousand Square Feet; EMP = Employees

[3] Off-Peak reduction adjustments has been made to for employee shift changes and deliveries occuring during street off-peak periods that are outside of 7-9 AM and 4-6 PM. Visitor traffic will occur during peak hours.

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 1

Hours of Operation:

Weekdays: 24

Weekends: 24

Total Number of Employees: 35

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8:00 am	5:00 pm	20
5:00 pm	2:00 am	6
1:00 am	9:00 am	4

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8:00 am	5:00 pm	10
5:00 pm	2:00 am	4
1:00 am	9:00 am	2

Non-Employee Visitors:

none per _____

(# of visitors) (day, week, month)

Number of Deliveries:

2 per week

(# of deliveries) (day, week, month)

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 2

Hours of Operation:

Weekdays: Mon - Fri

Weekends: Sat & Sun

Total Number of Employees: 30-35

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8:00 AM	5:00 PM	20
5:00 PM	2:00 AM	15

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
9:00 AM	2:00 PM	15
5:00 PM	10:00 PM	15

Non-Employee Visitors:

3 (# of visitors) per week (day, week, month)

Number of Deliveries:

8 1-2 (# of deliveries) per Day (day, week, month)

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 5

Hours of Operation:

Weekdays: 8 AM - 1 AM

Weekends: 8 AM - 1 AM

Total Number of Employees: _____

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8 AM	5 PM	30
5 PM	1 AM	30
1 AM	6 AM	5
		65 TOTAL

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8 AM	5 PM	20
5 PM	1 AM	20
1 AM	6 AM	5
		55 TOTAL

Non-Employee Visitors:

3 (# of visitors) per DAY (day, week, month)

Number of Deliveries:

3 (# of deliveries) per DAY (day, week, month)

PROJECTED ON - 60,000 SQ FT

2 BUILDINGS

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 6

Hours of Operation:

Weekdays: 8-5

Weekends: _____

Total Number of Employees: 15

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8	5	15

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees

Non-Employee Visitors:

1 per month

(# of visitors) (day, week, month)

Number of Deliveries:

1 per week

(# of deliveries) (day, week, month)

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 7

Hours of Operation:

Weekdays: 8AM - 1AM

Weekends: 8AM - 1AM 1AM - 5AM

Total Number of Employees: 110

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8AM	5PM	30
5PM	1AM	30
1AM	6AM	5
		65

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8AM	5PM	20
5PM	1AM	20
1AM	6AM	3
		45 TOTAL

Non-Employee Visitors:

3 (# of visitors) per DAY (day, week, month)

Number of Deliveries:

3 (# of deliveries) per DAY (day, week, month)

PROJECTED ON 62,000 SQ FEET 2 BUILDINGS

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 8

Hours of Operation:

Weekdays: 8 AM - 6 AM

Weekends: 8 AM - 1 AM

Total Number of Employees: _____

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8 AM	5 PM	30
5 PM	1 AM	30
1 AM	6 AM	10
		70

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8 AM	5 PM	20
5 PM	1 AM	20
1 AM	6 AM	5
		45
		115 TOTAL

Non-Employee Visitors:

3 (# of visitors) per DAY (day, week, month)

Number of Deliveries:

3 (# of deliveries) per DAY (day, week, month)

PROJECTED AREA OF 44,000 SQ FEET

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 13&17

Hours of Operation:

Weekdays: 24/7

Weekends: 24/7

Total Number of Employees: 35

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8:00am	5:00pm	24
7:00am	6:00pm	5
8:00pm	5:00am	6

Typical Weekend Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8:00am	5:00pm	8
8:00pm	5:00am	6

Non-Employee Visitors:

5 per week

(# of visitors) (day, week, month)

Number of Deliveries:

7 per week

(# of deliveries) (day, week, month)

MMJ INDUSTRIAL & BUSINESS PARK

Operations Questionnaire

Lot #: 22

Hours of Operation:

Weekdays: 8 AM - 1 AM

Weekends: 8 AM - 1 AM SATURDAY 8 AM - 5 PM SUNDAY

Total Number of Employees: 60

Typical Weekday Shifts:

Shift Start Times	Shift End Times	Max. # of Employees
8 AM	5 PM	20
5 PM	1 AM	10
2 SHIFTS MONDAY THROUGH FRIDAY		

Typical Weekend Shifts:

Shift Start Times	Shift End Times		Max. # of Employees
8 AM	5 PM	SAT	10
5 PM	1 AM	SAT	10
8 AM	5 PM	SUN	10
			60 TOTAL

Non-Employee Visitors:

3 (# of visitors) per DAY (day, week, month)

Number of Deliveries:

3 (# of deliveries) per DAY (day, week, month)

PROJECTED UNDER 40,000 SQ FT FULL OPERATION

Appendix B

Other Cumulative Development Information

Table 2 (1 of 2)

Other Development Trip Generation

ID	Project Name	Quantity	Units[1]	Trips Generated										
				Source[2]	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily
					In	Out	Total	In	Out	Total	In	Out	Total	
	Trip Generation Rates													
	Cultivation Facility	1.000	TSF	ITE 150	0.23	0.07	0.30	0.05	0.04	0.19	0.64	0.36	0.05	1.74
	Hotel	1.000	Rooms	ITE 310	0.28	0.19	0.47	0.31	0.29	0.60	0.56	0.44	0.72	8.36
	Supermarket	1	TSF	ITE 850	2.29	1.53	3.82	4.71	4.53	9.24	0.51	0.49	10.34	106.78
	Trips Generated													
1	CUP 02-15 & DA 06-15	180.900	TSF	ITE 150	42	12	54	9	25	34	6	3	9	116
2	CUP 03-15 & DA 04-15	1001.000	TSF	ITE 150	231	69	300	51	139	190	32	18	50	641
3	CUP 04-15 & DA 02-15	381.053	TSF	ITE 150	88	26	114	20	52	72	12	7	19	244
4	CUP 06-15 & DA 05-15	23.250	TSF	ITE 150	5	2	7	1	3	4	1	0	1	15
5	CUP 08-15 & DA 07-15	1.800	TSF	ITE 150	0	1	1	0	0	0	0	0	0	1
6	CUP 09-15 & DA 07-15	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
7	CUP 10-15	40.000	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
8	CUP 01-16 & DA 01-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
9	CUP 02-16	9.600	TSF	ITE 150	2	1	3	0	2	2	0	0	0	6
10	CUP 03-16	5.038	TSF	ITE 150	1	1	2	0	1	1	0	0	0	3
11	CUP 04-16 & DA 02-16	41.000	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
12	CUP 05-16 & DA 08-16	45.360	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
13	CUP 06-16	45.360	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
14	CUP 07-16	23.070	TSF	ITE 150	5	2	7	1	3	4	1	0	1	15
15	CUP 08-16	4.912	TSF	ITE 150	1	0	1	0	1	1	0	0	0	3
16	CUP 09-16	125.000	TSF	ITE 150	29	9	38	6	18	24	4	2	6	80
17	CUP 10-16	62.994	TSF	ITE 150	15	4	19	3	9	12	2	1	3	40
18	CUP 11-16 & DA 04-16	30.550	TSF	ITE 150	7	2	9	2	4	6	1	1	2	20
19	CUP 12-16 & DA 06-16	312.324	TSF	ITE 150	72	22	94	16	43	59	10	6	16	200
20	CUP 13-16	6.600	TSF	ITE 150	2	0	2	0	1	1	0	0	0	4
21	CUP 14-16	45.000	TSF	ITE 150	10	4	14	2	7	9	1	1	2	29
22	CUP 15-16	9.864	TSF	ITE 150	2	1	3	1	1	2	0	0	0	6
23	CUP 16-16 & DA 11-16	50.208	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
24	CUP 17-16 DA 12-16	50.208	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
25	CUP 18-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
26	CUP 19-16	36.000	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
27	CUP 20-16/DA	224.435	TSF	ITE 150	52	15	67	12	31	43	7	4	11	144
28	CUP 23-16 & DA 15-16	57.907	TSF	ITE 150	13	4	17	3	8	11	2	1	3	37
29	CUP 25-16	29.193	TSF	ITE 150	7	2	9	1	5	6	1	0	1	19
30	CUP 26-16 & DA 17-16	50.210	TSF	ITE 150	12	3	15	3	7	10	2	1	3	32
31	CUP 27-16	36.218	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
32	CUP 28-16	16.288	TSF	ITE 150	4	1	5	1	2	3	1	0	1	10
33	CUP 29-16	69.000	TSF	ITE 150	16	5	21	4	9	13	2	1	3	44
34	CUP 30-16	12.000	TSF	ITE 150	3	1	4	1	1	2	0	1	1	8

Table 2 (2 of 2)

Other Development Trip Generation

ID	Project Name	Quantity	Units[1]	Source[2]	Trips Generated									
					AM Peak Hour			PM Peak Hour			Saturday Peak Hour			
					In	Out	Total	In	Out	Total	In	Out	Total	Daily
35	CUP 01-17	20.664	TSF	ITE 150	5	1	6	1	3	4	1	0	1	13
36	CUP 02-17	621.920	TSF	ITE 150	144	43	187	32	86	118	20	11	31	398
37	CUP 03-17	22.000	TSF	ITE 150	5	2	7	1	3	4	1	0	1	14
38	CUP 05-17	35.320	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
39	CUP 06-17	86.700	TSF	ITE 150	20	6	26	4	12	16	3	1	4	55
40	CUP 07-17 & DA 05-17	63.446	TSF	ITE 150	15	4	19	3	9	12	2	1	3	41
41	CUP 08-17 & DA 06-17	50.976	TSF	ITE 150	12	3	15	3	7	10	2	1	3	33
42	CUP 09-17 & DA 07-17	8.389	TSF	ITE 150	2	1	3	0	2	2	0	0	0	5
43	CUP 11-17 DA 09-17	35.435	TSF	ITE 150	8	3	11	2	5	7	1	1	2	23
44	CUP 12-17 & DA 10-17	298.576	TSF	ITE 150	69	21	90	15	42	57	10	5	15	191
45	CUP 13-17 & DA 11-17	68.400	TSF	ITE 150	16	5	21	4	9	13	2	1	3	44
46	CUP 15-17	212.000	TSF	ITE 150	49	15	64	11	29	40	7	4	11	136
47	CUP 16-17	123.000	TSF	ITE 150	28	9	37	6	17	23	4	2	6	79
48	CUP 17-17 & DA 07-16	2800.000	TSF	ITE 150	647	193	840	144	388	532	90	50	140	1,792
49	CUP 21-17	6400.000	TSF	ITE 150	1,478	442	1,920	328	888	1,216	205	115	320	4,096
50	CUP 24-17	42.390	TSF	ITE 150	10	3	13	2	6	8	1	1	2	27
51	CUP 25-17	137.030	TSF	ITE 150	32	9	41	7	19	26	4	3	7	88
52	CUP 27-17	39.900	TSF	ITE 150	9	3	12	2	6	8	1	1	2	26
53	CUP 28-17	2152.583	TSF	ITE 150	497	149	646	110	299	409	69	39	108	1,378
54	TTM 37185/SP	1897.799	TSF	ITE 150	438	131	569	97	264	361	61	34	95	1,215
55	CUP 30-17	7.400	TSF	ITE 150	2	0	2	0	1	1	0	0	0	5
56	CUP 31-17	54.886	TSF	ITE 150	13	3	16	3	7	10	2	1	3	35
57	CUP 32-17	2720.640	TSF	ITE 150	628	188	816	140	377	517	87	49	136	1,741
58	CUP 33-17	16.671	TSF	ITE 150	4	1	5	1	2	3	1	0	1	11
59	CUP 34-17	1.400	TSF	ITE 150	0	0	0	0	0	0	0	0	0	1
60	CUP 35-17	32.650	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
61	CUP 36-17	22.176	TSF	ITE 150	5	2	7	1	3	4	1	0	1	14
62	CUP 37-17	15.542	TSF	ITE 150	4	1	5	1	2	3	0	1	1	10
63	CUP 38-17	33.200	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
64	CUP 38-17a	33.200	TSF	ITE 150	8	2	10	2	4	6	1	1	2	21
65	CUP 02-18	86	Rooms	ITE 310	24	17	40	26	25	52	35	27	62	719
66	CUP 05-18	270.072	TSF	ITE 850	619	413	1,032	1,273	1,223	2,495	1,424	1,369	2,793	28,838
67	CUP 08-18	429.080	TSF	ITE 150	99	30	129	22	60	82	14	7	21	275
Total Other Development Trips Generated					5,635	1,928	7,563	2,408	4,248	6,656	2,150	1,786	3,936	43,395

Notes:

(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code

MMJ Cultivation Facilities - Project Status and Contact Information

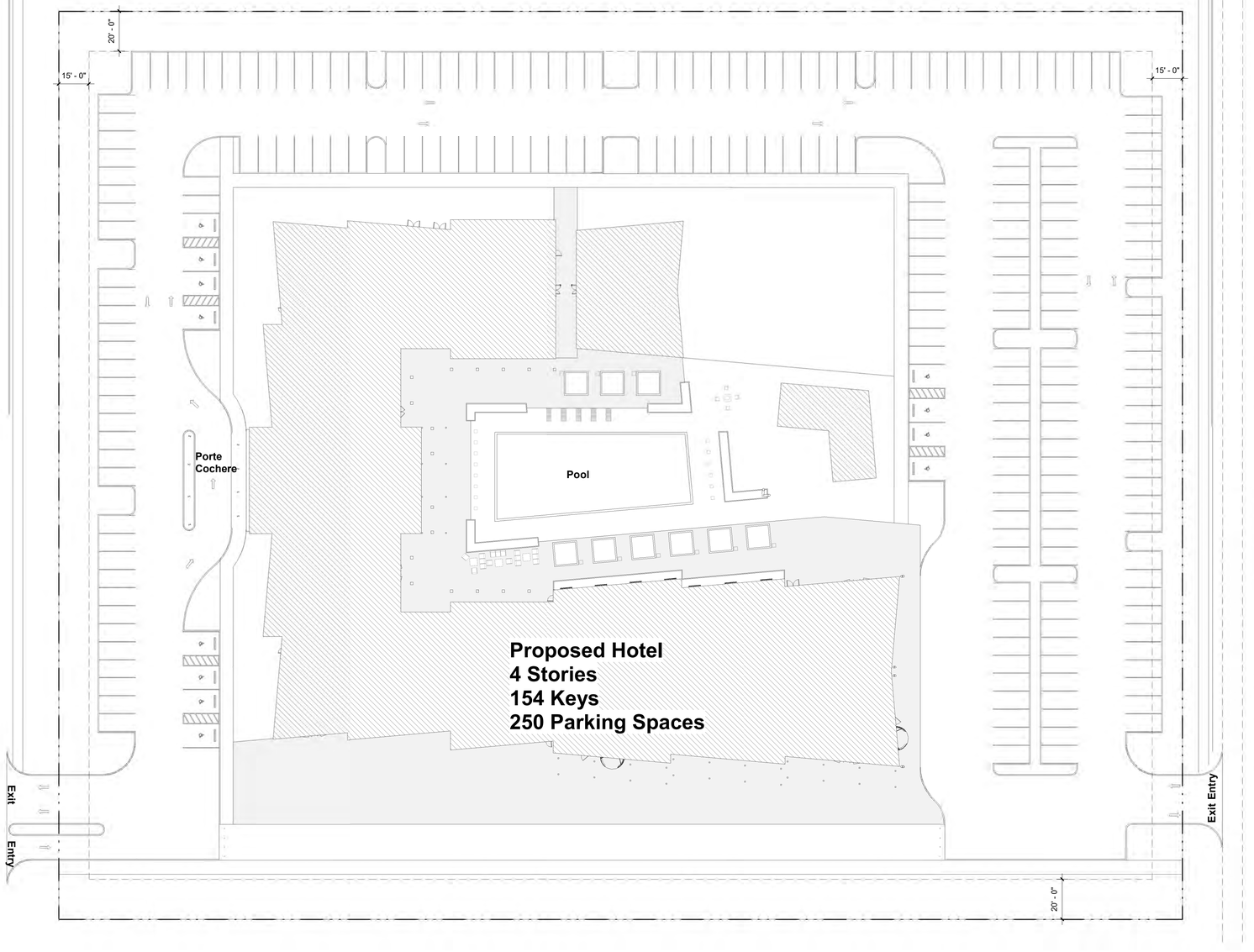
Grey - Approved
White - CUP - In Process
Green - CUP - In Operation
Blue - CUP Revoked/Withdrawn

	Project Number	Applicant/Contact Name	Application Project Name	Location	APN#	Permit #	Address Assigned	Applicant Contact Email Address	Applicant Phone Number	Building Size/Sq. Footage	Project Details	Planning Commission Approved Date	City Council Approved	Expiration of CUP	Status	Current Phase
1	CUP 02-15 & DA 06-15	David Snider (216)785-0011	Snider Interests, LLC	Little Morongo at Kranshire Road	APN# 663-270-004	2016-00000373 (Bldg 1) 2017-00000599 (Bldg 2) 2017-00000226	13310 Little Morongo Rd	dsnider@sniderinterests.com	(216) 633-0122	180,900	(3) New Buildings/New Construction		November 17,2015	17-Nov-17	DA & CUP Approved by CC 2/16/16	Operation 2 buildings and 1 in Construction
2	CUP 03-15- DA 04-15	Bernard Steimann - (714)585-3969 Marc Lebanoff (702)336-0636	Oxford Properties, LLC	Little Morongo at Dillon Road	APN# 665-110-004-3	2017-00001454	16786 Little Morongo Rd	info@gmcgc.com	(714) 585-3969	1,001,000	(20) New Buildings/New Construction		15-Dec-15	December 15,2017	DA & CUP Approved by CC 2/2/16	In Plan Check
3	CUP 04-15 & DA 02-15	Bob Selan Roland Gentner (605)593-2143	DHS Facilities Coachella Valley Patients Collective	Two Bunch Palms at Little Morongo	APN# 663-280-006, 007, 008, 009 & 663-280-018, 019 = 663-280-025	2018-00000887	65000 Two Bunch Palms Tr	cvcpdhs@gmail.com	(818) 710-8330	381,053	(5) New Buildings/New Construction		17-Nov-15	17-Nov-17	DA & CUP Approved by CC	Operation 1 building
4	CUP 05-15 & DA 03-15	John Van Beek	Xtreme Meds/Bunch Palm Trail, LLC	Southwest Corner of Two Bunch Palms and Cabot Road				xtremeconst@yahoo.com	(714) 915-2814				15-Dec-15	15-Dec-17	LAPSED	withdrawn
5	CUP 06-15 & DA 05-15	Dan Osborne	Clonenetics Laboratories, Cooperative Cultivation Center/Pineapple Express	65241 San Jacinto Street	APN# 665-030-063	2016-00000030 (Exp 07/05/2017)	65241 San Jacinto LN	dosbornezx@gmail.com	(760) 501-1788	23,250	(3) Existing Buildings and (1) New Building		November 17, 2015	November 17,2017	DA & CUP Approved by CC	Operation 1 building
6	CUP 08-15 - DA 07-15	Joji Dreyfus	CV Pharms	13500 Little Morongo Road	APN# 663-280-001-2	2016-00000184	13500 Little Morongo Rd	joidry@gmail.com	(310) 621-6288	1,800	(1) Existing Building	9-Jan-18		9-Jan-19	No DA Required /CUP Approved byPC - 1 year extension 1-9-19	
7	CUP 09-15 & DA 07-15	Rob Allen/ Allen Cooper	Cabot Building Partners, LLC	East side of Cabot Road, South of Two Bunch Palms	APN# 665-030-025, 665-030-38			RobAllen2004@aol.com	(760) 219-8118	36000	(1) New Building/New Construction		7-Mar-17	7-Mar-19	DA & CUP Approved by CC	
8	CUP 10-15	Mark Moran (760)805-1602 Patrcik (760)987-4586	San Jac Facilities, LLC	San Jacinto Street	APN#665-030-021-022	2017-00000722 (Exp 03/04/2018)	65242 San Jacinto Ln	Mmoran1@dc.rr.com	(760) 805-1602	40,000	(2) Existing Buildings	12-Jan-16		12-Jan-18	No DA Required CUP Approved by PC	Operation
9	CUP 01-16 & DA 01-16	Amanda Bui (Bob Minero)	DHS Therapeutics, AB&D Holdings, LLC	East side of Cabot Road, South of Two Bunch Palms				Amandabui@gmail.com	(714) 336-4420	36000	(1) New Building/New Construction		7-Mar-17	7-Mar-19	DA & CUP Approved by CC	
10	CUP 02-16	Adrian Sedlin (805)456-9103 Brad (760)518-5390 Stephanie (760)589-0138 Rcik Fisher (805)455-0980 David Parsky (310)850-3430	CANNDESCENT	65334 Two Bunch Palms Trail	APN# 665-030-057	2016-00000673	65321 Two Bunchj Palms Tr	azsedlin@gmail.com	(805) 456-9103	9,600	(2) Existing Buildings	8-Mar-16		8-Mar-18	No DA Required/CUP Approved	Operation
11	CUP 03-16	Sebastian Solano (954)244-4955	Highroad Consulting MED for American	65441 Two Bunch Palms	APN# 665-030-059-65	2018-00000045	65441 Two Bunch Palms Tr	NorthPo@gmail.com	(214) 552-5118	5,038	(1) Existing Building	Approved by PC 4/12/16		12-Apr-18	No DA Required /CUP Approved by PC	Operation
12	CUP 04-16 & DA 02-16	Sandra Silva (619)633-6557	Black Pepper Ventures III / VetsLeaf	South West Corner of San Jacinto Street at Cabot	APN#665-030-037	2018-00000020	65311 San Jacinto Ln	Chris@aerospace.com	(949) 933-5077	41,000	(1) New Building/New Construction	May 10,2016		10-May-18	DA & CUP Approved by CC	Operation
13	CUP 05-16- DA- 08-16	Sherwin Shoraka (714)401-5660	SRP RE, LLC	Two Bunch Palms	APN#665-030-051		65097 Two Bunch Palms Tr.	dlamoyand@aol.com / sherwin@ecewest.com	(305) 992-8784	45,360	(2) New Buildings/New Construction		Septemeber 6, 2016	6-Sep-18	DA & CUP Approved by CC	Construction
14	CUP 06-16	Sherwin Shoraka (714)401-5660	SRP RE, LLC	Two Bunch Palms	APN#665-030-052			dlamoyand@aol.com / sherwin@ecewest.com	(305) 992-8784	45,360	(2) New Buildings/New Construction		Septemeber 6, 2016	Septemeber 6, 2018	DA & CUP Approved by CC	Construction
15	CUP 07-16	Kamran Aniranfar (213)590-4545	Blue Mango	65118 San Jacinto Street		2017-00000053	65118 San Jacinto Ln	kami@bluemangousa.com; amirengr@aol.com	(213) 590-4545 (760) 318-7424	23,070	(1) Existing Building	Approved by PC 04/12/16		12-Apr-18	No DA Required/ CUP Approved by PC	In Operation
16	CUP 08-16	Kamran Aniranfar (213)590-4545	Blue Mango	65265 San Jacinto Street		2016-00000780	65265 San Jacinto Ln	kami@bluemangousa.com; amirengr@aol.com	(213) 590-4545 (760) 318-7424	4,912	(1) Existing Building	Approved by PC 12/12/2017		12-Apr-18	No DA Required/ CUP Approved by PC	Construction
17	CUP 09-16 - DA 03-16	Carlos Calixto (760)275-2181 Joe	ICG	Little Morongo between Dillon and 18th Street	APN#665-190-017			carlos@kannagroup.com		125,000	(5) New Buildings/New Construction		7-Jun-16	7-Jun-18	DA & CUP Approved by CC	Construction
18	CUP 10-16	Adam Gilman Burt Culha	City of Angels Patient Group Cooperative & AB Wellness Holdings, LLC (Formally GreenBond)	Little Morongo and Two Bunch Palms	APN#663-280-002			ao017management@gmail.com; burt@verdureventures.com	(646) 484-8579	62,994	(1) New Building/New Construction		18-Oct-16	18-Oct-18	DA & CUP Approved by CC11/01/16	
19	CUP 11-16- DA 04-16		DHS Properties Investments - We Care	Two Bunch Palms between Cabot Road and Little Morongo	APN#665-030-062	2016-00000826 (Exp 01/21/2018)		Wblock4@gmail.com; georgeedgroup@gmail.com	(202) 679-1753 (810) 499-1511	30,550	(1) New Building/New Construction		16-Aug-16	16-Aug-18	DA & CUP Approved by CC	Operation
20	CUP 12-16- DA- 06-16	Ryan Csaftis (760)889-1979	MERJ, LLC	Little Morongo between Two Bunch Palms and Dillon Road	APN#665-080-004			merjproperties@gmail.com	(760) 889-1979	312,324	(18) New Buildings/New Construction		6-Dec-16	6-Dec-18	DA & CUP Approved by CC	Construction
21	CUP 13-16	Armando Rodriguez	Ocean Springs Tech	Two Bunch Palms between Little Morongo and Cabot Road	APN#665-030-060	2017-00000101 (Exp 12/10/2017)		rodrigueza@oceanspringstech.com	(760) 329-8933	6600	(1) Existing Building	11-Oct-16		11-Oct-18	No DA Required/ CUP Approved by PC	
22	CUP 14-16	Morgan Sokol (323)473-5232 Priya Saluja (323)486-2787	Desert Hot Springs Green Horizons, LLC / Medmen	South East Corner of Little Morongo and Hacienda	APN#663-270-001	2017-00001040	13300 Little Morongo Rd	Morgan@medmen.com	(323) 473-5232	45,000	(1) New Building/New Construction		18-Apr-17	18-Apr-19	DA &CUP Approved by CC 05/16/ 17	In Operation
23	CUP 15-16	Bill L. Mason (714) 724-3990	RX DHS Herbery	Little Morongo	APN#665-030-060 14230 - 14250	2016-00001047	14250 Little Morongo Rd	russellsinger@gmail.com	(949) 280-4336	9,864	(3) Existing Buildings	22-Nov-16		22-Nov-18	DA & CUP Approved by CC	In Operation of 2 Buildings and 1 in Construction
24	CUP 16-16/DA 11-16	Brian Maddox (214)205-4903	Maddox 1	APN#663-280-003 East of Little Morongo, North of Two Bunch Palms				youcantbmad@gmail.com	(214) 205-4903	50,208	(1) New Building/New Construction		18-Apr-17	18-Apr-19	DA & CUP Approved by CC 05/16/ 17	
25	CUP 17-16/DA 12-16	Brian Maddox (214)205-4903	Maddox 2	APN#663-280-004 East of Little Morongo, North of Two Bunch Palms				fccdinquiry@gmail.com	(323) 376-2684	50,208	(1) New Building/New Construction		16-May-17	16-May-19	DA & CUP Approved by CC 05/ 16/ 17	
26	CUP 18-16	Allen Cooper/Bob Mainiero	Cabot Building Partners	East side of Cabot Road, South of Two Bunch Palms	APN# 665-030-026			psbob596@aol.com	(760) 413-7127	36,000	(1) New Building/New Construction		7-Mar-17	March 7,2019	DA & CUP Approved by CC	
27	CUP 19-16	Bob Mainiero/Amanda Bui	DHS Therapeutics	East side of Cabot Road, South of Two Bunch Palms	APN# 665-030-038			psbob596@aol.com	(760) 413-7127	36,000	(1) New Building/New Construction		7-Mar-17	March 7,2019	DA & CUP Approved by CC	
28	CUP 20-16/DA	Eric Hanna (949)870-2740 Daya Bettadapura (949)510-8874	Plaza DHS, LLC	West of Little Morongo and South of Dillon Road	APN#666-310-009			Magercan@aol.com	(949) 887-7568	224435	(3) New Building/New Construction	Approved by PC 12/12/2017		12-Dec-19	Approved by PC 12/12/2017	Plan Check
29	CUP 21-16	Sean Cunningham	Pineapple Express		APN #665-030-063, 665-030-032, 665-030-042, 665-030-043, 665-030-044, 665-030-045	2016-00000030 (Exp 07/05/2017)		matthewf@pineappleexpress.com	(877) 310-7675						WITHDRAWN	
31	CUP 23-16 & DA 15-16 (ST)	Medi Tehrachi	Bunch Palms Trail, LLC	East of Little Morongo and South of 14th Street	APN#665-030-058	2016-00000037	65401 Two Bunch Palms Tr	shell4721@aol.com	(951) 640-7392	57907	(1) New Building/New Construction	13-Dec-16		13-Dec-18	DA & CUP Approved by CC 02/ 16/ 16	Construction
32	CUP 25-16	Dimitry Margusov	Maraphram		APN # 665-050-021, 027, 030		14650 Little Morongo Rd	dmmargusov@aol.com	(310) 770-0366	29193	(1) New Building/New Construction		7-Feb-19	7-Feb-19	DA & CUP Approved by CC	Plan Check
33	CUP 26-16 & DA 17-16 (ST)	Kelly Clark	Yucca Mesa Holdings	APN#665-060-006 North West Corner of Cabot Road and Palomar Lane				kclark@terranovaplanning.com	(760) 341-4455	50210	(1) New Building/New Construction		21-Mar-17	21-Mar-19	DA & CUP Approved by CC 03/ 21/ 17	
34	CUP 27-16	Bill L. Mason (714) 724-3990	De La Mota		APN #665-030-036			bill@williammasonarchitect.com	(714) 724-3990	36218	(1) New Building/New Construction	Approved by PC 12/12/2017		12-Dec-19	Approved by PC 12/12/2017	Plan Check
35	CUP 28-16	Lior Stolin	Palomar DHS		APN #665-040-015				(949) 500-4139 (760) 325-5227	16288	(1) New Building/New Construction		5-Sep-17	4-Sep-19	Approved by CC September 5	Plan Check
36	CUP 29-16	Michael Torosian	Stark Invetsments Pulse Enterprises		APN #665-040-001			cbrizuela@msaconsulting.com	(760) 320-9811	69000	(2) Attached Two-Story Buildings		21-Mar-17	21-Mar-19	DA &CUP Approved by CC 04/ 4/ 17	
37	CUP 30-16	David Senft	Compassion and Health Collective		APN #665-030-055				(310) 927-8651 (323) 651-0096	12000	(1) New Building/New Construction	Approved by PC 09/25/2017			Approved PC September 25	
38	CUP 01-17	Tomothy Santos	D-9 Farms Cultivation CUP		APN #665-070-004			timothysantos87@gmail.com	(760) 325-5227	20664	(1) New Building/New Construction		5-Sep-17	4-Sep-19	Approved by CC September 5	
39	CUP 02-17	Laurie Holcolm (949)307-3800 Ed Luther (949(525-1177	Blackstar Industrial Properties		APN #666-370-012 through 015	2017-00001606	64125 19th Ave.	lholcomb@blackstarfinancial.com	(949) 252-1177 X132	621920	(5) New Buildings/New Construction		5-Jul-17	5-Jul-19	DA & CUP Approved by CC	Construction 3 Buildings
40	CUP 03-17	David Palmer	Desert Grow Cultivation		APN #665-040-017		65128 Palomar Ln	cbrizuela@msaconsulting.com	(760) 320-9811	22000	(1) New Building/New Construction		13-Jul-17	13-Jul-19	DA &CUP Approved by CC 07/ 18/ 17	
41	CUP 05-17	MIRO LLC	Desert Springs Cultivation		APN #665-040-010			cbrizuela@msaconsulting.com	(760) 320-9811	35320	(1) New Building/New Construction		19-Sep-17	19-Sep-19	Approved by CC September 5	
42	CUP 06-17	Tom Digiovanni	Canndescent II		APN #665-030-018 & 019			cbrizuela@msaconsulting.com	(760) 320-9811	86700	(2) Attached Two-Story Buildings		16-May-17	16-May-19	DA & CUP Approved by CC	
43	CUP 07-17 & DA 05-17	Victor Din	Din Cultivation project		APN #665-050-001, 002, 003, 004			cbrizuela@msaconsulting.com	(760) 320-9811	63446	(2) New Buildings/New Construction		18-Jul-17	18-Jul-19	DA & CUP Approved by CC	
44	CUP 08-17 & DA 06-17	Un Sun Kim	Kim Cultivation project		APN #665-040-018, 019, 022			cbrizuela@msaconsulting.com	(760) 320-9811	50976	(1) New Building/New Construction		5-Sep-17	5-Sep-19	DA & CUP Approved by CC	
45	CUP 09-17 & DA 07-17	Yand Guang	Guang Cultivation project		APN #665-040-022			cbrizuela@msaconsulting.com	(760) 320-9811	8389	(1) New Building/New Construction		5-Sep-17	5-Sep-19	Approved by CC 09/ 5/17	
46	CUP 11-17 & DA 09-17	Feliks Akopyan	Fingerhut	North of San Gorgonio between Little Morongo and Cabot	APN #665-030-041			nytrading11@gmail.com	(818) 306-4444	35435	(1) New Building/New Construction	Approved by PC 12/12/2017	5-Sep-17	5-Sep-19	Approved by PC 12/12/2017	
47	CUP 12-17 & DA 10-17	Gregory Restum	Green Acres Enterprises		APN #665-110-006			gregoryrestum@hotmail.com; zeta@yahoo.com	(323) 654-9088 (310) 889-8914	298576	(8) New Buildings/New Construction	Approved by PC September 25	25-Sep-17	25-Sep-19	Approved by PC 09/ 25 /17	
48	CUP 13-17 & DA 11-17	David Scheppers	Innovative Investment Company		APN #665-030-039 & 040			scheppers@msn.com	(949) 723-1102	68400	(4) New Buildings/New Construction	Approved by PC September 25, 2017		25-Sep-19	Approved by PC 09/25/17	

49	CUP 14-17 & DA 12-17		DHS Enterprises		APN #666-310-001			Michael@ennabe.com	(213) 388-2125	104,429		Approved by PC 12/12/2017		December 12, 2019	Approved by PC 12/12/2017	
50	CUP 15-17	MSA Representing	Hot Desert Springs LLC		APN #663-280-005		13640 Little Morongo Rd	neteased@gmail.com	(310) 774-1747 (323) 963-4040	212000	(2) New Buildings/New Construction	Approved by PC October 23		23-Oct-18	Approved by PC 10/ 23/17	
51	CUP 16-17	Gregory Wayne Salyers, Jr	DHS Development Cabot Road LP		APN #665-030-048			greg@winslowcg.com	(310) 804-1190	123000	(1) New Building/New Construction	Approved by PC September 25		Septemeber 25, 2019	Approved by PC 09/ 25/17	
52	CUP 17-17- DA- 07-16	Kenny Dickerson	Coachillin		APN #666-340-004, 006	(Green House) 2017-00001289 (PM 21783)	18550 Indian Canyon Dr	Kenny@ecomastercorp.com	(760) 360-4200	2800000	Specific Plan, Tentative Map CUP, GPA, ZMA	Approved07/11/2017 CC and PC Approved 11/7/2017				Temp Operation and In Construction
53	CUP 21-17	Nickolas Marotta	Desert Highlanders		APN #665-070-001, 665-050-011, 012, 013			nickolas186@gmail.com	(602) 565-9970	64000	(3) New Buildings/New Construction	PC Approved 12/12/17			PC Approved 8/ 8/17	and In Construction
54	CUP 24-17	Kamran Amiranfar	Medical Marijuana Facilities		APN #665-040-011			kami@bluemangousa.com	(213) 590-4545	42390	CUP New building/ Construction	Approved by PC 12/12/2017			Approved by PC 12/12/2017	
55	CUP 25-17	Ryan Csaftis	MERJ Life, LLC		APN #665-080-012			merjproperties@gmail.com	(760) 889-1979	137030	CUP (6) New building/ Construction	Approved by PC 12/12/2017			Approved by PC 12/12/2017	
56	CUP 27-17	Kamran Amiranfar	Medical Marijuana Facilities		APN #665-070-011			kami@bluemangousa.com	(213) 590-4545	39900	CUP New building/ Construction	Approved by PC 12/12/2017			Approved by PC 12/12/2017	
57	CUP 28-17	Desert Harvest Development / MSA	Desert Harvets Development		APN #666-370-019			cbrizuela@msaconsulting.com	(760) 320-9811	2152583	CUP, SP, GPA, ZMA, DA, TPM	Approved by PC 10/10/2017			Approved by PC 10/10/17 Approved by CC 11/7/17	
58	TTM 37185/SP	Ted Frattone	Desert Land Ventures, LLC	West of Varner Road and Palm Drive	APN#669-150-001, 669-150-002			tfrattone@hunsake.com	(949) 583-1010	1897799	TTM 37185, SP 01-16, GPA 01-16, ZMA 01-16, DA-124 acre subdivision and GP Amendment. Specific Plan 01-16				Approved by PC 2/13/2018	
59	CUP 30-17	Bill L. Mason	Rx DHS Herbery II	65040 & 65100 San Jacinto Lane	APN# 665-030-016		65090 San Jacinto Ln	bill@williammasonarchitect.com	(714) 427-0688	7400	(2) Two existing buildings	Approved by PC October 23			Approved by PC 10/ 23/17	
60	CUP 31-17	Spencer Jianan Li	Redshield		APN#665-050-018			spencer@theiddgroup.com	(626)297-0676	54885.6	New building/ New Construction	Approved by PC 12/12/2017			Approved by PC 12/12/2017	
61	CUP 32-17	Richard Connolly	Interstate West		APN#666-370-010, 666-370-011			richsend@gmail.com	(702)650-0555, (310)920-4433	2720640	New building/ New Construction				In Process	
62	CUP 33-17	Ken Moody & Vicki Jarvis	Smooth Everlasting INC		APN# 665-030-061			pdepalatis@msaconsultingin.com		16671	(2) New Buildings/New Construction	Approved by PC 12/12/2017			Approved by PC 12/12/2017	
63	CUP 34-17	Ann Morrison	New Growth Ventures		APN# 665-030-029		14350 Little Morongo Rd	amorrison@dc.rr.com	(760) 902-5666	1400	Modules/ New Construction				In Process	
64	CUP 35-17	Andrey Shmykov/ John Cotton	San Jacinto II		APN#665-030-020			john@dwjohnston.com	(760) 275-7963	32650	New building/ New Construction	Approved by PC 01/09/2018			Approved by PC 01/09/2018	
65	CUP 36-17	David Jaramillo	Collective Solutions		APN#665-050-019			carlos@martellinc.com	(786) 306-4000	22176	(3)New building/ New Construction				Approved by PC 2/13/2018	
66	CUP 37-17	Alexander Guzman	Guzman Cultivation Facility		APN#665-040-016			guzmanalex321@gmail.com	(213) 785-4180	15542	New building/ New Construction				Approved by PC 04/10/2018	
67	CUP 38-17	Andrey Shmykov/ John Cotton	DHS Cabot	East side of Cabot rd. between San Jacinto ln./ Two bunch palms trail	APN#665-030-025			john@dwjohnston.com	(323)775-3579/ (760)416-1124	33,200	New building/ New Construction				Approved by PC 2/13/2018	
68	CUP	Andrey Shmykov/ John Cotton	DHS Cabot	East side of Cabot rd. between San Jacinto ln./ Two bunch palms trail	APN#665-030-025			john@dwjohnston.com	(323)775-3579/ (760)416-1124	33,200	New building/ New Construction				Approved by PC 2/13/2018	
69	**CUP 02-18**		Best Western Plus	11083 Palm Drive	639-201-024						Create an 86 room hotel					
70	**CUP 05-18**		Best Development Group, LLC		656-020-034						Grocery Outlet				Approved by PC	
71	**CUP 08-18**		CHM Desert, LLC		663-260-002						Cannabis Cultivation					

Appendix C

Project Site Plans



Indian Avenue

1 / A100 **REFERENCE SITE PLAN**
1" = 30'-0"

No.	DESCRIPTION	DATE

CoaChill Inn Prototype
Desert Hot Springs, California

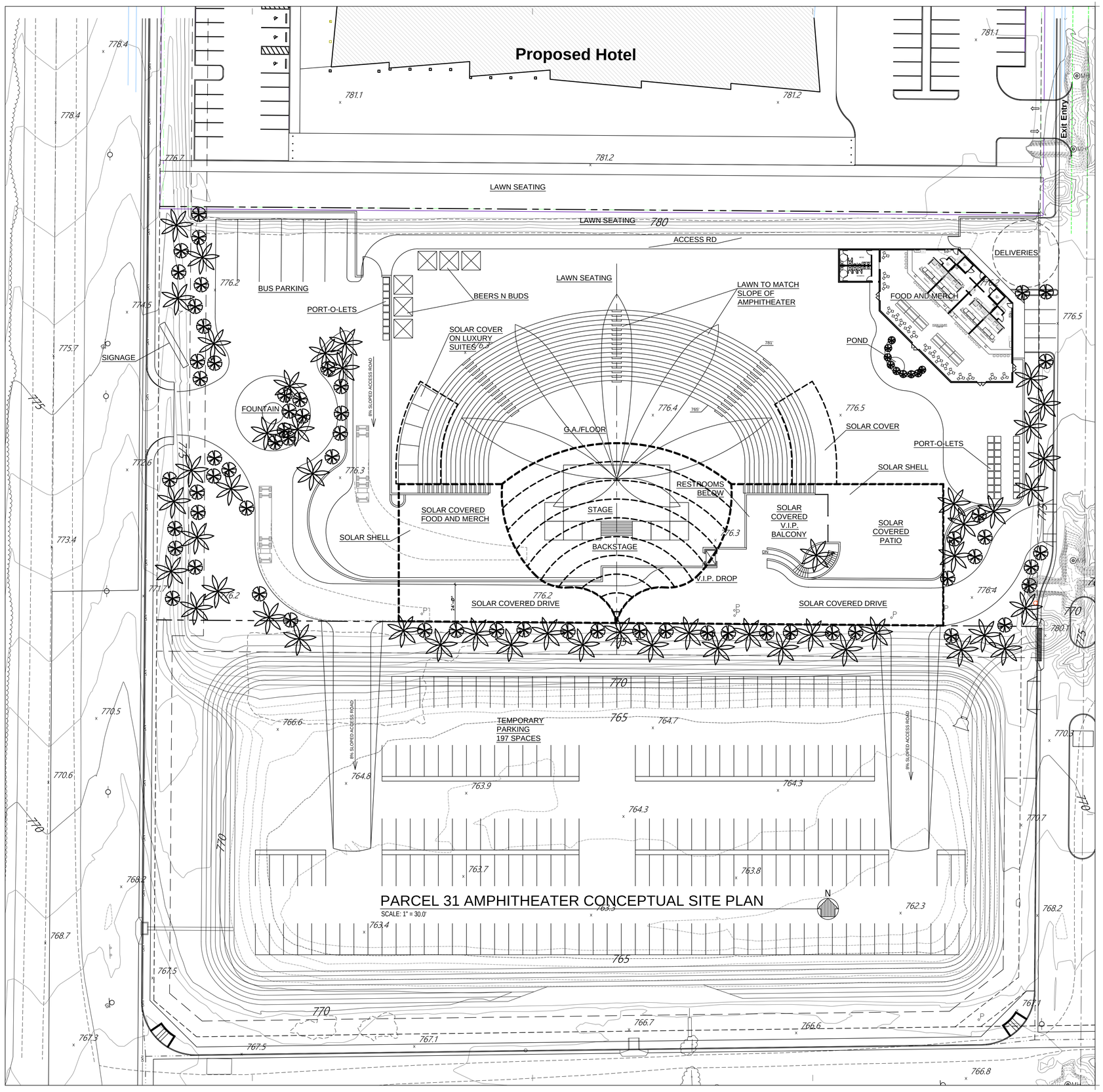
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FL COA: AA26001254

dlw architects
542 Douglas Avenue
Dunedin, FL 34698
727.736.6000
www.dlwarchitects.com
established 1981

DRAWN	JR
EDIT DATE	8/14/2019 10:49:29 AM
ISSUE DATE	
SCALE	1" = 30'-0"
JOB NUMBER	19-0001
PROJECT STATUS	
SHEET NAME	REFERENCE SITE PLAN
SHEET NUMBER	A100

SITE STATISTICS
AMPHITHEATER SITE AREA = 148,864 sq. ft.
AMPHITHEATER TOTAL AREA = 56,005 sq. ft.
AMPHITHEATER COVERED = 37,310 sq. ft.
AMPHITHEATER OPEN = 18,695 sq. ft.
HARDSCAPE AREA = 34564 sq. ft.
RESTAURANT AREA = 5,660 sq. ft.
RESTROOM AREA = 460 sq. ft.
PERMANENT PARKING = 4
TEMPORARY PARKING = 187
MOTORCOACH PARKING = 6
NEW TREES = 100+



PARCEL 31 AMPHITHEATER CONCEPTUAL SITE PLAN
SCALE: 1" = 30.0'

DO NOT REPRODUCE THESE DRAWINGS AND SPECIFICATIONS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE ARCHITECT. THE DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE & SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANYONE ON ANY OTHER PROJECT EXCEPT BY AGREEMENT WITH THE ARCHITECT. OTHERS EXCEPT WITH THE EXPRESSED WRITTEN PERMISSION OF THE ARCHITECT
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Project Name

No.	Date	Description

Architect / Designer / Engineer

Client Name

EcoMaster Corporation

EcoMaster
Corporation, LLC
46-883 Monroe Street
Suite 203
Indio, CA. 92201

Project Name

Coachillin'
Holdings, L.L.C.

COACHILLIN'
AMPHITHEATER

18-698 Indian Avenue
Parcel 31

19th Avenue &
Indian Avenue
Desert Hot Springs, CA.

Architect's / Engineer's Stamp

Drawing Description

Project Number	18.030.HS.00
Print Date	2019 . 09 . 04
Sheet Number	

APPENDIX C

VOLUME COUNT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

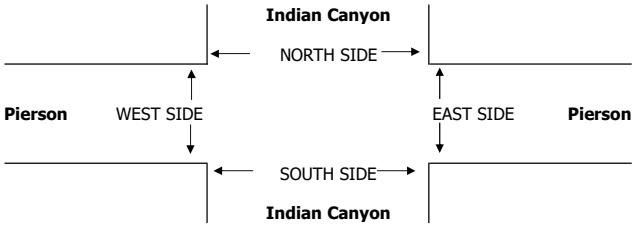
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	2
	EAST & WEST:	Pierson	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Pierson			WESTBOUND Pierson				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	25	17	6	57	8	2	22	6	32	11	2	188	0	0	0	0	0
	7:15 AM	4	33	26	16	78	5	10	24	10	44	15	4	269	0	0	0	0	0
	7:30 AM	0	34	23	10	67	16	3	26	4	28	11	4	226	0	0	0	0	0
	7:45 AM	4	38	19	10	44	4	4	24	6	26	12	6	197	0	0	0	0	0
	8:00 AM	0	29	23	12	59	4	4	15	13	29	14	6	208	0	0	0	0	0
	8:15 AM	4	41	12	11	44	2	9	21	7	37	13	2	203	0	0	0	0	0
	8:30 AM	3	32	17	14	61	5	2	19	4	30	16	6	209	0	0	0	0	0
	8:45 AM	5	39	22	12	48	3	2	19	3	19	14	5	191	0	0	0	0	0
	VOLUMES	20	271	159	91	458	47	36	170	53	245	106	35	1,691	0	0	0	0	0
	APPROACH %	4%	60%	35%	15%	77%	8%	14%	66%	20%	63%	27%	9%						
	APP/DEPART	450	/	342	596	/	756	259	/	420	386	/	173	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	8	134	91	48	248	29	21	89	33	127	52	20	900					
	APPROACH %	3%	58%	39%	15%	76%	9%	15%	62%	23%	64%	26%	10%						
	PEAK HR FACTOR		0.925			0.821			0.813			0.790		0.836					
	APP/DEPART	233	/	175	325	/	408	143	/	228	199	/	89	0					
PM	4:00 PM	12	79	27	9	37	8	4	22	2	21	19	16	256	0	0	0	0	0
	4:15 PM	8	75	20	4	40	3	6	32	4	22	17	10	241	0	0	0	0	0
	4:30 PM	6	67	28	9	31	4	2	22	5	22	19	14	229	0	0	0	0	0
	4:45 PM	11	71	33	11	38	0	9	23	3	16	21	20	256	0	0	0	0	0
	5:00 PM	4	67	24	7	36	2	5	17	3	15	21	11	212	0	0	0	0	0
	5:15 PM	7	85	34	8	36	5	8	18	4	16	12	8	241	0	0	0	0	0
	5:30 PM	11	81	36	7	34	1	3	20	4	25	22	11	255	0	0	0	0	0
	5:45 PM	7	67	48	14	14	6	5	18	5	9	10	6	209	0	0	0	0	0
	VOLUMES	66	592	250	69	266	29	42	172	30	146	141	96	1,899	0	0	0	0	0
	APPROACH %	7%	65%	28%	19%	73%	8%	17%	70%	12%	38%	37%	25%						
	APP/DEPART	908	/	730	364	/	442	244	/	491	383	/	236	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	37	292	108	33	146	15	21	99	14	81	76	60	982					
	APPROACH %	8%	67%	25%	17%	75%	8%	16%	74%	10%	37%	35%	28%						
	PEAK HR FACTOR		0.926			0.898			0.798			0.952		0.959					
	APP/DEPART	437	/	373	194	/	241	134	/	240	217	/	128	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

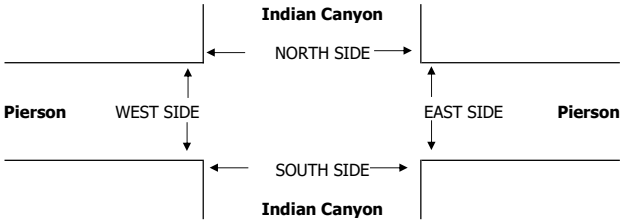
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	1
	EAST & WEST:	Pierson	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Indian Canyon)			SOUTHBOUND (Indian Canyon)			EASTBOUND (Pierson)			WESTBOUND (Pierson)				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
MIDDAY	11:00 AM	2	37	14	4	33	5	4	22	5	17	20	6	169	0	0	0	0	0
	11:15 AM	2	44	8	3	36	5	2	17	6	16	28	7	174	0	0	0	0	0
	11:30 AM	1	38	12	3	42	11	4	21	6	15	35	9	197	0	0	0	0	0
	11:45 AM	6	40	15	5	28	2	4	21	3	12	16	10	162	1	0	0	0	1
	12:00 PM	7	31	10	14	37	7	2	18	8	10	21	8	173	0	0	0	0	0
	12:15 PM	1	43	10	1	31	6	4	20	6	9	25	11	167	0	0	0	0	0
	12:30 PM	3	35	18	14	33	4	7	19	3	19	14	5	174	0	0	0	0	0
	12:45 PM	6	38	15	7	37	1	4	24	2	20	10	7	171	0	0	0	0	0
	VOLUMES	28	306	102	51	277	41	31	162	39	118	169	63	1,387	1	0	0	0	1
	APPROACH %	6%	70%	23%	14%	75%	11%	13%	70%	17%	34%	48%	18%						
	APP/DEPART	436	/	400	369	/	435	232	/	315	350	/	237	0					
	BEGIN PEAK HR		11:15 AM																
	VOLUMES	16	153	45	25	143	25	12	77	23	53	100	34	706					
	APPROACH %	7%	71%	21%	13%	74%	13%	11%	69%	21%	28%	53%	18%						
	PEAK HR FACTOR		0.877			0.832			0.903			0.792		0.896					
	APP/DEPART	214	/	199	193	/	220	112	/	147	187	/	140	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	11:15 AM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

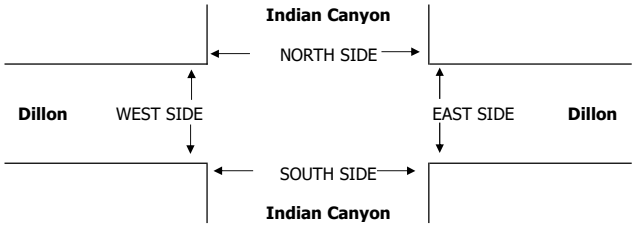
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	3
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	44	23	1	93	2	0	13	12	77	15	5	291	0	0	0	0	0
	7:15 AM	4	53	22	2	121	7	1	22	18	95	19	4	368	1	0	0	0	1
	7:30 AM	3	54	40	7	111	5	1	20	15	92	21	4	373	0	0	0	0	0
	7:45 AM	3	42	34	7	85	2	2	23	5	82	17	5	307	0	0	0	0	0
	8:00 AM	2	45	32	5	92	0	0	21	4	75	11	2	289	0	0	0	0	0
	8:15 AM	3	53	32	9	95	0	0	14	3	70	19	1	299	0	0	0	0	0
	8:30 AM	5	49	41	7	87	3	1	19	5	72	19	2	310	0	0	0	0	0
	8:45 AM	3	63	41	4	82	0	4	22	2	78	17	5	321	0	0	0	0	0
	VOLUMES	29	403	265	42	766	19	9	154	64	641	138	28	2,558	1	0	0	0	1
	APPROACH %	4%	58%	38%	5%	93%	2%	4%	68%	28%	79%	17%	3%						
	APP/DEPART	697	/	440	827	/	1,472	227	/	461	807	/	185	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	16	193	119	17	410	16	4	78	50	346	72	18	1,339					
	APPROACH %	5%	59%	36%	4%	93%	4%	3%	59%	38%	79%	17%	4%						
	PEAK HR FACTOR		0.845			0.852			0.805			0.924		0.897					
	APP/DEPART	328	/	215	443	/	807	132	/	214	436	/	103	0					
PM	4:00 PM	2	100	71	4	55	0	1	14	2	48	28	11	336	0	0	0	0	0
	4:15 PM	2	100	75	12	55	0	3	22	6	41	23	10	349	0	0	0	0	0
	4:30 PM	2	107	75	4	49	0	1	21	3	49	20	7	338	0	0	0	0	0
	4:45 PM	6	93	84	7	53	0	0	25	3	40	18	5	334	0	0	0	0	0
	5:00 PM	2	111	65	9	45	1	3	29	5	35	17	6	328	0	0	0	0	0
	5:15 PM	3	132	51	4	57	2	0	16	1	34	18	5	323	0	0	0	0	0
	5:30 PM	4	108	72	8	48	0	1	28	3	43	14	5	334	0	0	0	0	0
	5:45 PM	1	112	62	3	42	0	1	25	1	44	14	5	310	0	0	0	0	0
	VOLUMES	22	863	555	51	404	3	10	180	24	334	152	54	2,652	0	0	0	0	0
	APPROACH %	2%	60%	39%	11%	88%	1%	5%	84%	11%	62%	28%	10%						
	APP/DEPART	1,440	/	927	458	/	762	214	/	786	540	/	177	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	12	400	305	27	212	0	5	82	14	178	89	33	1,357					
	APPROACH %	2%	56%	43%	11%	89%	0%	5%	81%	14%	59%	30%	11%						
	PEAK HR FACTOR		0.974			0.892			0.815			0.862		0.972					
	APP/DEPART	717	/	438	239	/	404	101	/	414	300	/	101	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

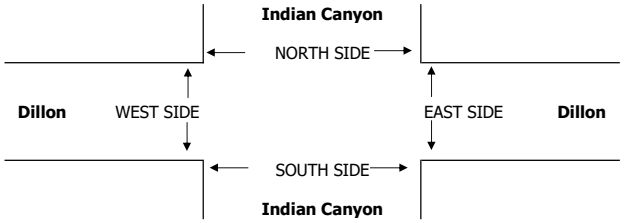
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	2
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
MIDDAY	11:00 AM	1	53	42	6	50	2	1	11	2	53	19	5	245	0	0	0	0	0
	11:15 AM	1	48	37	5	52	0	1	13	4	40	18	3	222	0	0	0	0	0
	11:30 AM	4	52	34	4	58	1	0	24	10	38	23	8	256	0	0	0	0	0
	11:45 AM	2	50	49	5	48	0	2	8	4	55	21	2	246	0	0	0	0	0
	12:00 PM	1	49	33	8	52	1	0	17	8	40	13	2	224	0	0	0	0	0
	12:15 PM	3	49	34	4	43	1	0	25	6	46	17	6	234	0	0	0	0	0
	12:30 PM	2	54	51	4	51	1	2	19	3	36	20	5	248	0	0	0	0	0
	12:45 PM	1	55	39	7	51	1	1	26	8	41	21	4	255	0	0	0	0	0
	VOLUMES	15	410	319	43	405	7	7	143	45	349	152	35	1,930	0	0	0	0	0
	APPROACH %	2%	55%	43%	9%	89%	2%	4%	73%	23%	65%	28%	7%						
	APP/DEPART	744	/	452	455	/	799	195	/	505	536	/	174	0					
	BEGIN PEAK HR		11:00 AM																
	VOLUMES	8	203	162	20	208	3	4	56	20	186	81	18	969					
	APPROACH %	2%	54%	43%	9%	90%	1%	5%	70%	25%	65%	28%	6%						
	PEAK HR FACTOR		0.923			0.917			0.588			0.913		0.946					
	APP/DEPART	373	/	225	231	/	414	80	/	238	285	/	92	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	11:00 AM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

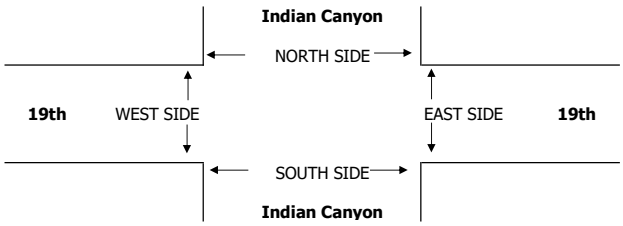
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Thu, Aug 22, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	3
	EAST & WEST:	19th	CONTROL:	STOP E/W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 19th			WESTBOUND 19th				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	79	7	0	172	4	2	0	0	0	0	1	267	0	0	0	0	0
	7:15 AM	0	80	3	1	237	1	0	0	2	2	0	1	327	0	0	0	0	0
	7:30 AM	12	84	0	1	253	4	2	0	1	2	0	1	360	1	0	0	0	1
	7:45 AM	4	99	6	2	208	4	2	0	3	2	0	2	332	0	0	0	0	0
	8:00 AM	2	83	4	1	174	1	0	0	1	0	0	0	266	0	0	0	0	0
	8:15 AM	1	92	5	1	209	0	0	0	1	1	0	0	310	0	0	0	0	0
	8:30 AM	1	87	1	0	164	0	0	0	1	0	0	0	254	0	0	0	0	0
	8:45 AM	1	98	0	0	140	3	2	0	4	1	0	0	249	0	0	0	0	0
	VOLUMES	23	702	26	6	1,557	17	8	0	13	8	0	5	2,365	1	0	0	0	1
	APPROACH %	3%	93%	3%	0%	99%	1%	38%	0%	62%	62%	0%	38%						
	APP/DEPART	751	/	715	1,580	/	1,579	21	/	32	13	/	39	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	18	342	16	4	870	13	6	0	6	6	0	5	1,286					
	APPROACH %	5%	91%	4%	0%	98%	1%	50%	0%	50%	55%	0%	45%						
	PEAK HR FACTOR		0.862			0.859			0.600			0.688		0.893					
	APP/DEPART	376	/	353	887	/	883	12	/	20	11	/	30	0					
PM	4:00 PM	2	189	1	0	108	1	4	0	5	1	0	0	311	0	0	0	0	0
	4:15 PM	4	182	1	0	110	1	0	0	3	1	0	1	303	0	0	0	0	0
	4:30 PM	2	161	1	0	110	1	2	0	3	1	0	0	281	0	0	0	0	0
	4:45 PM	2	182	1	0	92	0	3	0	2	0	0	0	282	1	0	0	0	1
	5:00 PM	3	187	0	0	103	0	2	0	3	1	0	0	299	0	0	0	0	0
	5:15 PM	1	198	0	0	96	1	1	0	3	0	0	0	300	0	0	0	0	0
	5:30 PM	2	150	0	0	103	0	0	0	1	0	0	0	256	0	0	0	0	0
	5:45 PM	2	161	2	1	98	4	1	0	4	0	0	0	273	0	0	0	0	0
	VOLUMES	18	1,410	6	1	820	8	13	0	24	4	0	1	2,305	1	0	0	0	1
	APPROACH %	1%	98%	0%	0%	99%	1%	35%	0%	65%	80%	0%	20%						
	APP/DEPART	1,434	/	1,424	829	/	849	37	/	7	5	/	25	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	10	714	4	0	420	3	9	0	13	3	0	1	1,177					
	APPROACH %	1%	98%	1%	0%	99%	1%	41%	0%	59%	75%	0%	25%						
	PEAK HR FACTOR		0.948			0.953			0.611			0.500		0.946					
	APP/DEPART	728	/	724	423	/	437	22	/	4	4	/	12	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	3
	EAST & WEST:	19th	CONTROL:	STOP E/W

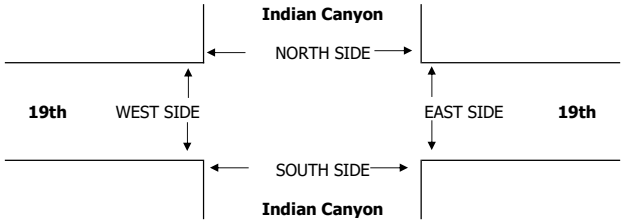
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 19th			WESTBOUND 19th			
	LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
MIDDAY	11:00 AM	2	76	4	0	103	1	4	0	3	1	0	0	194
	11:15 AM	5	79	5	0	107	2	3	0	2	0	0	1	204
	11:30 AM	6	85	3	1	105	1	4	0	2	1	0	0	208
	11:45 AM	4	94	5	0	96	0	2	0	4	0	0	0	205
	12:00 PM	2	87	4	0	99	2	2	0	2	0	0	1	199
	12:15 PM	1	89	3	0	101	1	3	0	3	0	0	0	201
	12:30 PM	2	91	4	1	97	2	2	0	4	0	0	0	203
	12:45 PM	1	96	2	0	92	1	1	0	2	1	0	0	196
	VOLUMES	23	697	30	2	800	10	21	0	22	3	0	2	1,610
	APPROACH %	3%	93%	4%	0%	99%	1%	49%	0%	51%	60%	0%	40%	
	APP/DEPART	750	/	720	812	/	825	43	/	32	5	/	33	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	17	345	17	1	407	5	11	0	10	1	0	2	816
	APPROACH %	4%	91%	4%	0%	99%	1%	52%	0%	48%	33%	0%	67%	
	PEAK HR FACTOR		0.920			0.947			0.875			0.750		0.981
	APP/DEPART	379	/	358	413	/	418	21	/	18	3	/	22	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:15 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	4
	EAST & WEST:	20th	CONTROL:	SIGNAL

NOTES:

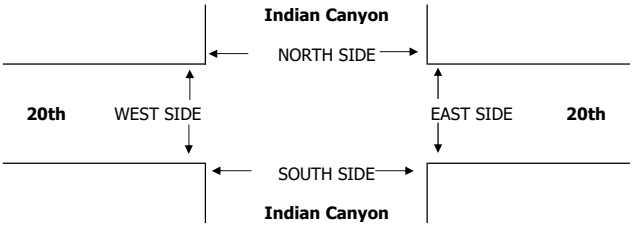
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 20th			WESTBOUND 20th			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 1	WL 2	WT 0.5	WR 1.5	TOTAL
AM	7:00 AM	5	58	0	2	152	8	5	1	20	45	15	29	340
	7:15 AM	6	79	3	0	243	3	3	0	18	41	18	17	431
	7:30 AM	4	70	3	0	221	3	3	0	18	86	10	24	442
	7:45 AM	3	65	0	1	212	2	5	1	8	82	8	24	411
	8:00 AM	8	68	1	3	159	4	8	0	8	54	2	17	332
	8:15 AM	5	71	1	4	168	3	6	0	14	73	4	25	374
	8:30 AM	10	87	3	0	151	4	4	1	17	54	4	31	366
	8:45 AM	6	74	3	1	155	2	4	0	13	64	4	34	360
	VOLUMES	47	572	14	11	1,461	29	38	3	116	499	65	201	3,056
	APPROACH %	7%	90%	2%	1%	97%	2%	24%	2%	74%	65%	8%	26%	
	APP/DEPART	633	/	811	1,501	/	2,080	157	/	28	765	/	137	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	18	272	6	3	828	16	16	2	64	254	51	94	1,624
	APPROACH %	6%	92%	2%	0%	98%	2%	20%	2%	78%	64%	13%	24%	
	PEAK HR FACTOR		0.841			0.861			0.788			0.831		0.919
	APP/DEPART	296	/	382	847	/	1,147	82	/	11	399	/	84	0
PM	4:00 PM	7	145	1	1	111	3	1	1	16	35	11	47	379
	4:15 PM	12	135	1	0	120	4	5	0	30	49	9	62	427
	4:30 PM	12	142	1	0	101	4	4	0	21	41	8	49	383
	4:45 PM	6	172	1	0	109	4	4	0	8	53	4	40	401
	5:00 PM	13	148	0	0	96	7	9	1	22	69	16	60	441
	5:15 PM	7	139	3	1	89	3	6	0	15	60	13	64	400
	5:30 PM	4	132	2	2	92	6	4	0	11	65	6	56	380
	5:45 PM	7	127	2	1	99	3	6	0	15	47	6	53	366
	VOLUMES	68	1,140	11	5	817	34	39	2	138	419	73	431	3,177
	APPROACH %	6%	94%	1%	1%	95%	4%	22%	1%	77%	45%	8%	47%	
	APP/DEPART	1,219	/	1,610	856	/	1,382	179	/	18	923	/	167	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	43	597	3	0	426	19	22	1	81	212	37	211	1,652
	APPROACH %	7%	93%	0%	0%	96%	4%	21%	1%	78%	46%	8%	46%	
	PEAK HR FACTOR		0.898			0.897			0.743			0.793		0.937
	APP/DEPART	643	/	830	445	/	725	104	/	4	460	/	93	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	
AM 7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	2
VOLUMES	4	0	0	0	4
PM 4:00 PM	0	0	0	0	0
4:15 PM	2	0	0	0	2
4:30 PM	2	0	0	0	2
4:45 PM	0	0	0	0	0
5:00 PM	2	0	0	0	2
5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	0	1
5:45 PM	1	0	0	0	1
VOLUMES	8	0	0	0	8



PEDESTRIAN + BIKE CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	7:00 AM				
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	4:15 PM				

PEDESTRIAN CROSSINGS

	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
AM BEGIN PEAK HR	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM BEGIN PEAK HR	0	0	0	0	0

BICYCLE CROSSINGS

	NS	SS	ES	WS	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	4
	EAST & WEST:	20th	CONTROL:	SIGNAL

NOTES:

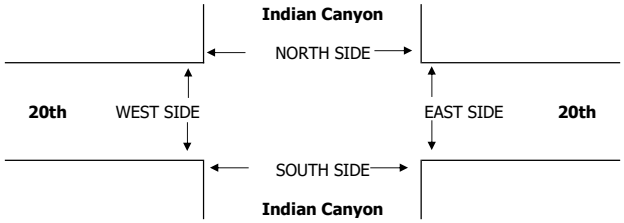
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND 20th			WESTBOUND 20th			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 1	WL 2	WT 0.5	WR 1.5	TOTAL
MIDDAY	11:00 AM	5	52	2	3	88	6	5	0	12	48	1	27	249
	11:15 AM	4	55	3	4	77	5	2	1	17	38	4	19	229
	11:30 AM	5	59	6	1	109	3	5	1	10	33	6	33	271
	11:45 AM	6	66	1	1	88	1	3	1	16	44	4	23	254
	12:00 PM	3	60	0	2	95	4	4	1	16	27	5	20	237
	12:15 PM	1	80	2	2	92	3	8	1	7	28	3	21	248
	12:30 PM	2	71	0	3	87	4	4	0	16	25	2	29	243
	12:45 PM	4	60	1	0	85	3	3	0	11	43	4	29	243
	VOLUMES	30	503	15	16	721	29	34	5	105	286	29	201	1,974
	APPROACH %	5%	92%	3%	2%	94%	4%	24%	3%	73%	55%	6%	39%	
	APP/DEPART	548	/	738	766	/	1,117	144	/	37	516	/	82	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	15	265	9	6	384	11	20	4	49	132	18	97	1,010
	APPROACH %	5%	92%	3%	1%	96%	3%	27%	5%	67%	53%	7%	39%	
	PEAK HR FACTOR		0.870			0.887			0.869			0.858		0.932
	APP/DEPART	289	/	382	401	/	567	73	/	20	247	/	41	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
2	0	0	0	2
1	0	0	0	1
0	0	0	1	1
2	0	0	0	2
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
6	0	0	1	7



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:30 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

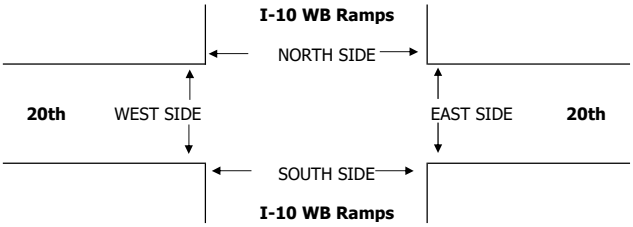
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	I-10 WB Ramps	LOCATION #:	6
	EAST & WEST:	20th	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-10 WB Ramps			SOUTHBOUND I-10 WB Ramps			EASTBOUND 20th			WESTBOUND 20th				U-TURNS				
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	77	0	1	0	0	0	0	1	0	0	6	0	85	0	0	0	0	0
	7:15 AM	74	0	3	0	0	0	0	0	0	0	3	0	80	0	0	0	0	0
	7:30 AM	104	0	1	0	0	0	0	0	0	0	2	0	107	0	0	0	0	0
	7:45 AM	101	0	5	0	0	0	0	1	0	0	2	0	109	0	0	0	0	0
	8:00 AM	79	0	2	0	0	0	0	1	1	0	2	0	85	0	0	0	0	0
	8:15 AM	82	0	1	0	0	0	0	1	0	3	0	0	87	0	0	0	0	0
	8:30 AM	84	0	1	0	0	0	0	1	1	0	1	0	88	0	0	0	0	0
	8:45 AM	88	0	3	0	0	0	0	3	0	0	4	0	98	0	0	0	0	0
	VOLUMES	689	0	17	0	0	0	0	8	2	3	20	0	739	0	0	0	0	0
	APPROACH %	98%	0%	2%	0%	0%	0%	0%	80%	20%	13%	87%	0%						
	APP/DEPART	706	/	0	0	/	5	10	/	25	23	/	709	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	366	0	9	0	0	0	0	3	1	3	6	0	388					
	APPROACH %	98%	0%	2%	0%	0%	0%	0%	75%	25%	33%	67%	0%						
	PEAK HR FACTOR		0.884			0.000			0.500			0.750		0.890					
	APP/DEPART	375	/	0	0	/	4	4	/	12	9	/	372	0					
PM	4:00 PM	96	0	2	0	0	0	0	0	1	1	2	0	102	0	0	0	0	0
	4:15 PM	109	0	1	0	0	0	0	1	1	0	3	0	115	0	0	0	0	0
	4:30 PM	100	0	2	0	0	0	0	1	0	0	2	0	105	0	0	0	0	0
	4:45 PM	102	0	1	0	0	0	0	0	0	1	3	0	107	0	0	0	0	0
	5:00 PM	124	0	3	0	0	0	0	0	1	2	2	0	132	0	0	0	0	0
	5:15 PM	131	0	0	0	0	0	0	1	0	1	3	0	136	0	0	0	0	0
	5:30 PM	125	0	0	0	0	0	0	1	0	1	1	0	128	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	787	0	9	0	0	0	0	4	3	6	16	0	825	0	0	0	0	0
	APPROACH %	99%	0%	1%	0%	0%	0%	0%	57%	43%	27%	73%	0%						
	APP/DEPART	796	/	0	0	/	9	7	/	13	22	/	803	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	482	0	4	0	0	0	0	2	1	5	9	0	503					
	APPROACH %	99%	0%	1%	0%	0%	0%	0%	67%	33%	36%	64%	0%						
	PEAK HR FACTOR		0.927			0.000			0.750			0.875		0.925					
	APP/DEPART	486	/	0	0	/	6	3	/	6	14	/	491	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:30 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR			4:45 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	I-10 WB Ramps	LOCATION #:	5
	EAST & WEST:	20th	CONTROL:	SIGNAL

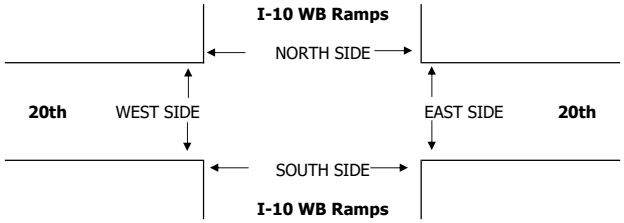
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND I-10 WB Ramps			SOUTHBOUND I-10 WB Ramps			EASTBOUND 20th			WESTBOUND 20th			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 1	WT 2	WR X	TOTAL
MIDDAY	11:00 AM	60	0	1	0	0	0	0	0	0	0	2	0	63
	11:15 AM	60	0	1	0	0	0	0	3	0	0	2	0	66
	11:30 AM	66	0	0	0	0	0	0	1	0	0	4	0	71
	11:45 AM	63	0	0	0	0	0	0	1	1	0	2	0	67
	12:00 PM	41	0	1	0	0	0	0	1	0	0	1	0	44
	12:15 PM	46	0	1	0	0	0	0	0	2	0	0	0	49
	12:30 PM	56	0	0	0	0	0	0	0	0	0	0	0	56
	12:45 PM	78	0	0	0	0	0	0	0	0	0	1	0	79
	VOLUMES	470	0	4	0	0	0	0	6	3	0	12	0	499
	APPROACH %	99%	0%	1%	0%	0%	0%	0%	50%	25%	0%	100%	0%	
	APP/DEPART	475	/	0	0	/	4	12	/	10	12	/	485	0
	BEGIN PEAK HR	11:00 AM												
	VOLUMES	249	0	2	0	0	0	0	5	1	0	10	0	269
	APPROACH %	99%	0%	1%	0%	0%	0%	0%	63%	13%	0%	100%	0%	
	PEAK HR FACTOR		0.951			0.000			0.400			0.625		0.947
	APP/DEPART	251	/	0	0	/	1	8	/	7	10	/	261	0

U-TURNS					
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
1	0	0	0	1
1	0	3	0	4



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:00 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

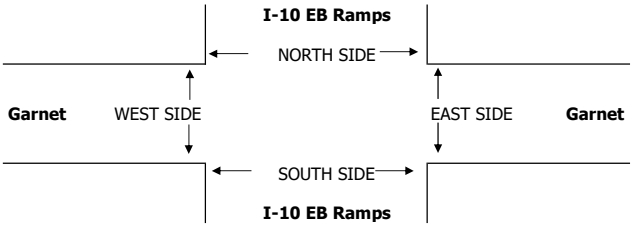
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	I-10 EB Ramps	LOCATION #:	1
	EAST & WEST:	Garnet	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-10 EB Ramps			SOUTHBOUND I-10 EB Ramps			EASTBOUND Garnet			WESTBOUND Garnet				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL 1	ET 1	ER X	WL X	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	63	0	3	6	8	0	0	8	31	119	0	0	0	0	0
	7:15 AM	0	0	0	75	0	2	0	6	0	0	18	41	142	0	0	0	0	0
	7:30 AM	0	0	0	85	0	6	4	5	0	0	21	37	158	0	0	0	0	0
	7:45 AM	0	0	0	74	0	4	0	8	0	0	9	26	121	0	0	0	0	0
	8:00 AM	0	0	0	70	0	5	3	10	0	0	9	22	119	0	0	0	0	0
	8:15 AM	0	0	0	49	0	3	2	12	0	0	10	26	102	0	0	0	0	0
	8:30 AM	0	0	0	81	0	0	21	34	0	0	12	25	173	0	0	0	0	0
	8:45 AM	0	0	0	59	0	2	16	19	0	0	11	26	133	0	0	0	0	0
	VOLUMES	0	0	0	556	0	25	52	102	0	0	98	234	1,067	0	0	0	0	0
	APPROACH %	0%	0%	0%	96%	0%	4%	34%	66%	0%	0%	30%	70%						
	APP/DEPART	0	/	286	581	/	0	154	/	658	332	/	123	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	304	0	17	7	29	0	0	57	126	540					
	APPROACH %	0%	0%	0%	95%	0%	5%	19%	81%	0%	0%	31%	69%						
	PEAK HR FACTOR		0.000			0.882			0.643			0.775		0.854					
	APP/DEPART	0	/	133	321	/	0	36	/	333	183	/	74	0					
PM	4:00 PM	0	0	0	32	0	2	4	11	0	0	10	23	82	0	0	0	0	0
	4:15 PM	0	0	0	55	0	3	5	27	0	0	10	29	129	0	0	0	0	0
	4:30 PM	0	0	0	57	0	4	0	12	0	0	14	25	112	0	0	0	0	0
	4:45 PM	0	0	0	43	0	1	3	13	0	0	18	17	95	0	0	0	0	0
	5:00 PM	0	0	0	45	0	3	2	13	0	0	12	22	97	0	0	0	0	0
	5:15 PM	0	0	0	51	0	2	3	12	0	0	12	17	97	0	0	0	0	0
	5:30 PM	0	0	0	40	0	3	3	17	0	0	14	11	88	0	0	0	0	0
	5:45 PM	0	0	0	44	0	1	4	16	0	0	7	12	84	0	0	0	0	0
	VOLUMES	0	0	0	367	0	19	24	121	0	0	97	156	784	0	0	0	0	0
	APPROACH %	0%	0%	0%	95%	0%	5%	17%	83%	0%	0%	38%	62%						
	APP/DEPART	0	/	180	386	/	0	145	/	488	253	/	116	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	0	0	200	0	11	10	65	0	0	54	93	433					
	APPROACH %	0%	0%	0%	95%	0%	5%	13%	87%	0%	0%	37%	63%						
	PEAK HR FACTOR		0.000			0.865			0.586			0.942		0.839					
	APP/DEPART	0	/	103	211	/	0	75	/	265	147	/	65	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR			4:15 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	I-10 EB Ramps	LOCATION #:	7
	EAST & WEST:	Garnet	CONTROL:	SIGNAL

NOTES:

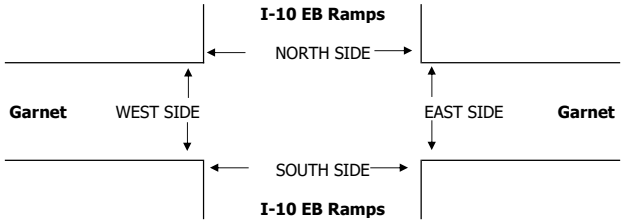
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-10 EB Ramps			SOUTHBOUND I-10 EB Ramps			EASTBOUND Garnet			WESTBOUND Garnet			
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL 1	ET 1	ER X	WL X	WT 1	WR 1	TOTAL
MIDDAY	11:00 AM	0	0	0	32	0	2	2	8	0	0	6	15	65
	11:15 AM	0	0	0	37	0	2	3	7	0	0	8	16	73
	11:30 AM	0	0	0	52	0	1	5	10	0	0	10	19	97
	11:45 AM	0	0	0	38	0	2	5	5	0	0	7	20	77
	12:00 PM	0	0	0	54	0	4	1	8	0	0	6	27	100
	12:15 PM	0	0	0	48	0	1	1	7	0	0	9	18	84
	12:30 PM	0	0	0	51	0	2	2	8	0	0	5	16	84
	12:45 PM	0	0	0	39	0	7	0	6	0	0	7	14	73
	VOLUMES	0	0	0	351	0	21	19	59	0	0	58	145	653
	APPROACH %	0%	0%	0%	94%	0%	6%	24%	76%	0%	0%	29%	71%	
	APP/DEPART	0	/	164	372	/	0	78	/	410	203	/	79	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	0	0	0	192	0	8	12	30	0	0	32	84	358
	APPROACH %	0%	0%	0%	96%	0%	4%	29%	71%	0%	0%	28%	72%	
	PEAK HR FACTOR		0.000			0.862			0.700			0.879		0.895
	APP/DEPART	0	/	96	200	/	0	42	/	222	116	/	40	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:30 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

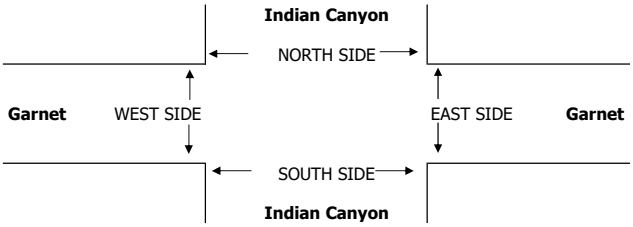
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	JN6627
Wed, Apr 10, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	5
	EAST & WEST:	Garnet	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — N / W / E / S

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Garnet			WESTBOUND Garnet				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 2	SR 1	EL 2	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	68	4	31	126	30	33	7	28	5	2	3	337	0	27	0	0	27
	7:15 AM	6	92	1	45	173	44	42	3	45	8	2	3	464	0	43	0	0	43
	7:30 AM	3	131	5	38	204	46	33	3	66	3	1	2	535	0	30	0	0	30
	7:45 AM	4	115	1	38	247	30	19	3	51	5	1	4	518	0	31	0	0	31
	8:00 AM	6	103	3	32	150	21	26	3	42	6	1	0	393	0	27	0	0	27
	8:15 AM	3	104	7	26	177	31	40	0	35	3	0	0	426	0	23	0	0	23
	8:30 AM	6	91	4	40	153	36	44	10	62	2	2	0	450	0	32	0	0	32
	8:45 AM	9	93	5	28	156	29	39	3	38	5	0	4	409	0	24	0	0	24
	VOLUMES	37	797	30	278	1,386	267	276	32	367	37	9	16	3,532	0	237	0	0	237
	APPROACH %	4%	92%	3%	14%	72%	14%	41%	5%	54%	60%	15%	26%						
	APP/DEPART	864	/	1,326	1,931	/	1,790	675	/	103	62	/	313	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	19	441	10	153	774	141	120	12	204	22	5	9	1,910					
	APPROACH %	4%	94%	2%	14%	72%	13%	36%	4%	61%	61%	14%	25%						
	PEAK HR FACTOR		0.845			0.848			0.824			0.692		0.893					
	APP/DEPART	470	/	701	1,068	/	1,000	336	/	44	36	/	165	0					
PM	4:00 PM	11	212	3	39	73	27	22	7	21	0	1	1	417	0	35	0	0	35
	4:15 PM	14	161	3	42	96	24	54	2	30	2	1	5	434	0	35	0	0	35
	4:30 PM	7	210	1	31	98	27	44	6	25	4	3	4	460	0	30	0	0	30
	4:45 PM	12	212	6	27	91	24	34	3	18	4	1	4	436	0	24	0	0	24
	5:00 PM	16	199	3	47	86	31	41	4	27	1	1	0	456	0	42	0	0	42
	5:15 PM	10	208	5	37	93	26	35	3	24	0	1	3	445	0	31	0	0	31
	5:30 PM	8	162	1	24	101	15	51	3	17	2	0	1	385	0	20	0	0	20
	5:45 PM	8	166	4	30	95	15	39	3	28	0	3	2	393	0	27	0	0	27
	VOLUMES	86	1,530	26	277	733	189	320	31	190	13	11	20	3,426	0	244	0	0	244
	APPROACH %	5%	93%	2%	23%	61%	16%	59%	6%	35%	30%	25%	45%						
	APP/DEPART	1,642	/	2,114	1,199	/	936	541	/	90	44	/	286	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	45	829	15	142	368	108	154	16	94	9	6	11	1,797					
	APPROACH %	5%	93%	2%	23%	60%	17%	58%	6%	36%	35%	23%	42%						
	PEAK HR FACTOR		0.966			0.942			0.880			0.591		0.977					
	APP/DEPART	889	/	1,121	618	/	471	264	/	46	26	/	159	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	6
	EAST & WEST:	Garnet	CONTROL:	SIGNAL

NOTES:

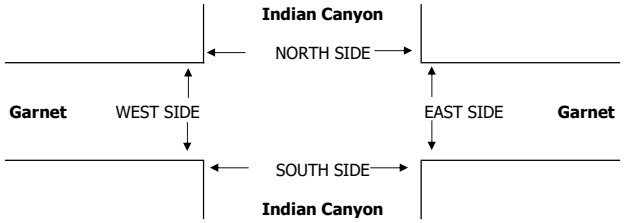
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Garnet			WESTBOUND Garnet			
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 2	SR 1	EL 2	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
MIDDAY	11:00 AM	11	66	1	16	74	20	27	3	15	1	0	0	234
	11:15 AM	14	76	1	30	73	19	29	2	23	0	2	2	271
	11:30 AM	15	85	6	19	80	19	35	2	21	0	1	2	285
	11:45 AM	6	87	6	38	78	20	35	4	19	5	1	4	303
	12:00 PM	7	87	6	24	67	24	24	3	26	1	2	4	275
	12:15 PM	8	78	3	27	75	13	30	3	21	5	0	2	265
	12:30 PM	11	79	2	23	69	14	31	1	27	2	0	1	260
	12:45 PM	8	71	4	29	74	19	32	5	20	1	1	0	264
	VOLUMES	80	629	29	206	590	148	243	23	172	15	7	15	2,157
	APPROACH %	11%	85%	4%	22%	63%	16%	55%	5%	39%	41%	19%	41%	
	APP/DEPART	738	/	1,075	944	/	777	438	/	70	37	/	235	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	42	335	19	111	298	82	123	11	89	6	6	12	1,134
	APPROACH %	11%	85%	5%	23%	61%	17%	55%	5%	40%	25%	25%	50%	
	PEAK HR FACTOR		0.934			0.903			0.961			0.600		0.936
	APP/DEPART	396	/	573	491	/	393	223	/	38	24	/	130	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	16	0	0	16
0	28	0	0	28
0	18	0	0	18
0	34	0	0	34
0	23	0	0	23
0	21	0	0	21
0	23	0	0	23
0	25	0	0	25
0	188	0	0	188



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:15 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

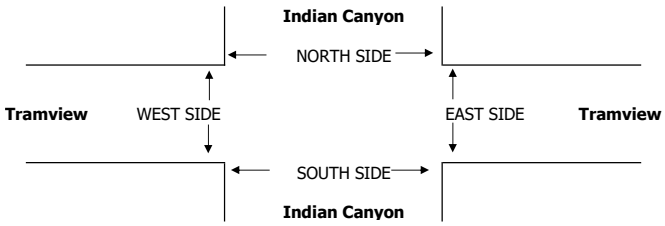
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Thu, Aug 22, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	8
	EAST & WEST:	Tramview	CONTROL:	STOP E

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Tramview			WESTBOUND Tramview				U-TURNS				
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	93	0	0	172	3	6	0	3	0	0	0	279	0	0	0	0	0
	7:15 AM	5	97	0	0	223	1	6	0	13	0	0	0	345	0	0	0	0	0
	7:30 AM	5	125	0	0	287	4	6	0	9	0	0	0	436	0	0	0	0	0
	7:45 AM	10	101	0	0	261	13	4	0	3	0	0	0	392	0	0	0	0	0
	8:00 AM	3	112	0	0	211	6	20	0	14	0	0	0	366	0	0	0	0	0
	8:15 AM	3	112	0	0	200	0	7	0	8	0	0	0	330	0	0	0	0	0
	8:30 AM	4	110	0	0	196	1	4	0	11	0	0	0	326	1	0	0	0	1
	8:45 AM	6	103	0	0	168	1	4	0	1	0	0	0	283	0	0	0	0	0
	VOLUMES	38	853	0	0	1,718	29	57	0	62	0	0	0	2,758	1	0	0	0	1
	APPROACH %	4%	96%	0%	0%	98%	2%	48%	0%	52%	0%	0%	0%						
	APP/DEPART	892	/	910	1,747	/	1,781	119	/	0	0	/	67	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	23	435	0	0	982	24	36	0	39	0	0	0	1,539					
	APPROACH %	5%	95%	0%	0%	98%	2%	48%	0%	52%	0%	0%	0%						
	PEAK HR FACTOR		0.881			0.864			0.551			0.000		0.882					
	APP/DEPART	458	/	471	1,006	/	1,021	75	/	0	0	/	47	0					
PM	4:00 PM	10	201	0	0	108	6	5	0	4	0	0	0	334	1	0	0	0	1
	4:15 PM	8	146	0	0	118	4	9	0	8	0	0	0	293	0	0	0	0	0
	4:30 PM	9	196	0	0	118	5	3	0	6	0	0	0	337	0	0	0	0	0
	4:45 PM	11	184	0	0	138	8	4	0	7	0	0	0	352	0	0	0	0	0
	5:00 PM	8	219	0	0	110	6	4	0	5	0	0	0	352	0	1	0	0	1
	5:15 PM	14	169	0	0	106	5	3	0	8	0	0	0	305	0	0	0	0	0
	5:30 PM	10	126	0	0	123	8	2	0	13	0	0	0	282	1	0	0	0	1
	5:45 PM	5	135	0	0	116	7	4	0	8	0	0	0	275	0	0	0	0	0
	VOLUMES	75	1,376	0	0	937	49	34	0	59	0	0	0	2,533	2	1	0	0	3
	APPROACH %	5%	95%	0%	0%	95%	5%	37%	0%	63%	0%	0%	0%						
	APP/DEPART	1,453	/	1,411	987	/	998	93	/	0	0	/	124	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	42	768	0	0	472	24	14	0	26	0	0	0	1,347					
	APPROACH %	5%	95%	0%	0%	95%	5%	35%	0%	65%	0%	0%	0%						
	PEAK HR FACTOR		0.892			0.851			0.909			0.000		0.954					
	APP/DEPART	810	/	783	497	/	498	40	/	0	0	/	66	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	8
	EAST & WEST:	Tramview	CONTROL:	STOP E

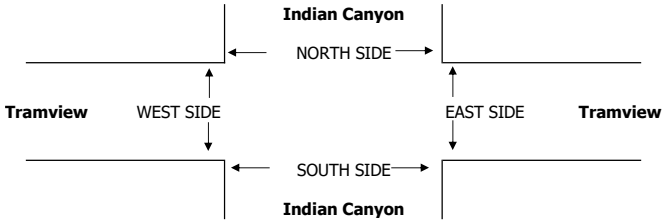
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Tramview			WESTBOUND Tramview			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
MIDDAY	11:00 AM	8	79	0	0	86	2	5	0	4	0	0	0	184
	11:15 AM	3	88	0	0	90	2	8	0	4	0	0	0	195
	11:30 AM	5	97	0	0	96	2	4	0	4	0	0	0	208
	11:45 AM	6	92	0	0	95	5	5	0	2	0	0	0	205
	12:00 PM	2	87	0	0	96	3	5	0	5	0	0	0	198
	12:15 PM	2	94	0	0	99	2	4	0	4	0	0	0	205
	12:30 PM	2	90	0	0	81	3	5	0	6	0	0	0	187
	12:45 PM	1	88	0	0	99	2	2	0	4	0	0	0	196
	VOLUMES	29	715	0	0	742	21	38	0	33	0	0	0	1,578
	APPROACH %	4%	96%	0%	0%	97%	3%	54%	0%	46%	0%	0%	0%	
	APP/DEPART	744	/	753	763	/	775	71	/	0	0	/	50	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	15	370	0	0	386	12	18	0	15	0	0	0	816
	APPROACH %	4%	96%	0%	0%	97%	3%	55%	0%	45%	0%	0%	0%	
	PEAK HR FACTOR		0.944			0.985			0.825			0.000		0.981
	APP/DEPART	385	/	388	398	/	401	33	/	0	0	/	27	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0		
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:30 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

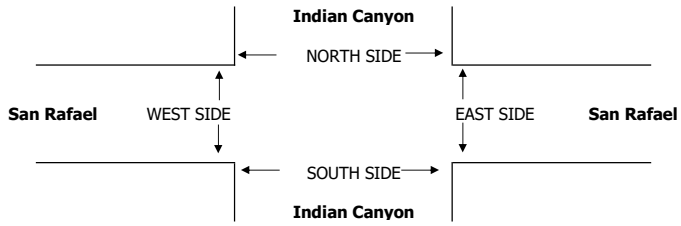
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Thu, Aug 22, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	9
	EAST & WEST:	San Rafael	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND San Rafael			WESTBOUND San Rafael				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	63	2	45	133	10	19	10	0	4	16	25	330	0	0	0	0	0
	7:15 AM	7	63	3	54	187	7	18	16	5	5	18	36	419	0	1	0	0	1
	7:30 AM	7	85	2	71	245	11	22	21	10	7	17	39	537	0	0	0	0	0
	7:45 AM	5	92	1	43	230	11	8	10	6	8	13	32	459	0	1	0	0	1
	8:00 AM	6	71	4	52	203	5	12	15	8	6	21	39	442	0	1	0	0	1
	8:15 AM	10	100	3	32	195	8	6	14	14	5	15	36	438	0	0	0	0	0
	8:30 AM	9	96	2	34	189	25	7	16	12	8	13	42	453	0	4	0	0	4
	8:45 AM	12	80	3	28	143	13	13	9	4	6	15	39	365	0	0	0	0	0
	VOLUMES	59	650	20	359	1,525	90	105	111	59	49	128	288	3,443	0	7	0	0	7
	APPROACH %	8%	89%	3%	18%	77%	5%	38%	40%	21%	11%	28%	62%						
	APP/DEPART	729	/	1,050	1,974	/	1,633	275	/	483	465	/	277	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	28	348	10	198	873	35	48	60	38	26	66	146	1,876					
	APPROACH %	7%	90%	3%	18%	79%	3%	33%	41%	26%	11%	28%	61%						
	PEAK HR FACTOR		0.854			0.846			0.689			0.902		0.873					
	APP/DEPART	386	/	544	1,106	/	937	146	/	266	238	/	129	0					
PM	4:00 PM	12	153	10	26	95	9	18	6	5	1	20	53	408	0	2	0	0	2
	4:15 PM	9	143	1	29	101	12	12	18	4	4	14	53	400	0	0	0	0	0
	4:30 PM	11	152	2	23	101	11	17	22	7	5	19	48	418	0	2	0	0	2
	4:45 PM	11	154	4	30	122	20	14	7	7	6	28	52	455	0	1	0	0	1
	5:00 PM	7	170	8	25	97	4	18	15	4	2	14	47	411	0	0	0	0	0
	5:15 PM	14	142	11	24	84	14	17	12	5	9	15	53	400	0	1	0	0	1
	5:30 PM	9	101	6	31	106	13	9	18	10	5	26	40	374	0	0	0	0	0
	5:45 PM	10	108	3	22	110	18	11	20	5	2	20	48	377	0	0	0	0	0
	VOLUMES	83	1,123	45	210	816	101	116	118	47	34	156	394	3,243	0	6	0	0	6
	APPROACH %	7%	90%	4%	19%	72%	9%	41%	42%	17%	6%	27%	67%						
	APP/DEPART	1,251	/	1,639	1,127	/	897	281	/	367	584	/	340	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	43	618	25	102	404	49	66	56	23	22	76	200	1,684					
	APPROACH %	6%	90%	4%	18%	73%	9%	46%	39%	16%	7%	26%	67%						
	PEAK HR FACTOR		0.927			0.807			0.788			0.866		0.925					
	APP/DEPART	686	/	888	555	/	449	145	/	179	298	/	168	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:30 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	9
	EAST & WEST:	San Rafael	CONTROL:	SIGNAL

NOTES:

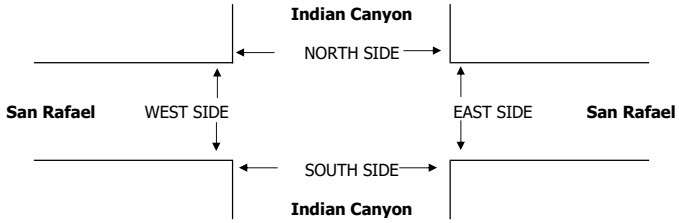
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND San Rafael			WESTBOUND San Rafael			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL
MIDDAY	11:00 AM	8	67	2	18	66	17	4	17	4	4	12	37	256
	11:15 AM	10	77	2	19	83	11	13	17	5	4	19	34	294
	11:30 AM	9	76	3	23	77	14	11	19	5	9	12	25	283
	11:45 AM	10	82	2	22	84	19	15	10	10	7	18	23	302
	12:00 PM	5	76	6	34	75	12	11	20	12	3	22	33	309
	12:15 PM	10	75	5	26	91	8	10	13	5	4	19	28	294
	12:30 PM	15	72	6	17	84	9	12	11	7	1	12	31	277
	12:45 PM	8	68	3	20	82	19	9	15	4	5	17	34	284
	VOLUMES	75	593	29	179	642	109	85	122	52	37	131	245	2,299
	APPROACH %	11%	85%	4%	19%	69%	12%	33%	47%	20%	9%	32%	59%	
	APP/DEPART	697	/	934	930	/	732	259	/	319	413	/	314	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	34	309	16	105	327	53	47	62	32	23	71	109	1,188
	APPROACH %	9%	86%	4%	22%	67%	11%	33%	44%	23%	11%	35%	54%	
	PEAK HR FACTOR		0.955			0.970			0.820			0.875		0.961
	APP/DEPART	359	/	470	485	/	383	141	/	178	203	/	157	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	1	0	0	1
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2
1	0	0	0	1
0	1	0	0	1
0	4	0	0	4
0	1	0	0	1
1	11	0	0	12



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:30 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

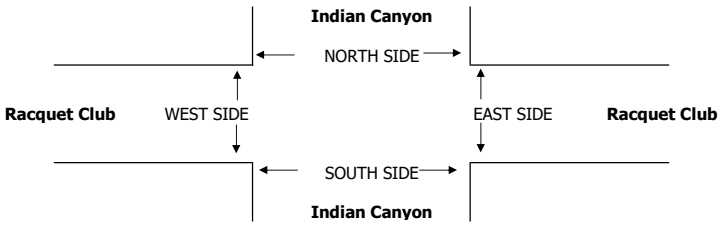
DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Thu, Aug 22, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	10
	EAST & WEST:	Racquet Club	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Racquet Club			WESTBOUND Racquet Club				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	47	5	22	111	12	2	39	7	2	16	12	283	0	0	0	0	0
	7:15 AM	5	49	2	27	149	10	6	44	7	5	16	14	334	0	0	0	0	0
	7:30 AM	9	72	3	31	217	10	4	70	11	6	36	18	487	0	0	0	0	0
	7:45 AM	12	65	3	33	221	16	8	60	5	6	30	18	477	0	0	0	0	0
	8:00 AM	8	51	8	39	144	8	7	39	8	12	39	16	379	0	0	0	0	0
	8:15 AM	13	87	4	26	182	10	2	52	3	10	34	18	441	0	0	0	0	0
	8:30 AM	11	67	6	35	149	17	6	48	7	6	39	17	408	0	0	0	0	0
	8:45 AM	14	72	9	19	113	17	5	40	7	6	26	13	341	0	0	0	0	0
	VOLUMES	80	510	40	232	1,286	100	40	392	55	53	236	126	3,150	0	0	0	0	0
	APPROACH %	13%	81%	6%	14%	79%	6%	8%	80%	11%	13%	57%	30%						
	APP/DEPART	630	/	676	1,618	/	1,394	487	/	664	415	/	416	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	42	275	18	129	764	44	21	221	27	34	139	70	1,784					
	APPROACH %	13%	82%	5%	14%	82%	5%	8%	82%	10%	14%	57%	29%						
	PEAK HR FACTOR		0.805			0.868			0.791			0.907		0.916					
	APP/DEPART	335	/	366	937	/	825	269	/	368	243	/	225	0					
PM	4:00 PM	11	153	3	7	81	5	8	30	4	6	46	14	368	0	0	0	0	0
	4:15 PM	8	131	9	21	97	7	4	24	4	3	52	13	373	0	0	0	0	0
	4:30 PM	13	144	5	21	92	6	11	32	7	2	42	21	396	0	0	0	0	0
	4:45 PM	15	146	4	17	109	7	10	33	6	4	55	22	428	0	0	0	0	0
	5:00 PM	16	151	3	21	83	3	11	29	3	5	71	24	420	0	0	0	0	0
	5:15 PM	9	143	5	27	69	3	6	37	3	3	54	31	390	0	0	0	0	0
	5:30 PM	9	101	3	12	106	2	7	35	3	9	40	24	351	0	0	0	0	0
	5:45 PM	9	103	7	14	111	4	2	27	7	6	38	21	349	0	0	0	0	0
	VOLUMES	90	1,072	39	140	748	37	59	247	37	38	398	170	3,075	0	0	0	0	0
	APPROACH %	7%	89%	3%	15%	81%	4%	17%	72%	11%	6%	66%	28%						
	APP/DEPART	1,201	/	1,301	925	/	823	343	/	426	606	/	525	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	53	584	17	86	353	19	38	131	19	14	222	98	1,634					
	APPROACH %	8%	89%	3%	19%	77%	4%	20%	70%	10%	4%	66%	29%						
	PEAK HR FACTOR		0.962			0.861			0.940			0.835		0.954					
	APP/DEPART	654	/	720	458	/	386	188	/	234	334	/	294	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:30 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Palm Springs	PROJECT #:	SC2330
Sat, Aug 24, 19	NORTH & SOUTH:	Indian Canyon	LOCATION #:	10
	EAST & WEST:	Racquet Club	CONTROL:	SIGNAL

NOTES:

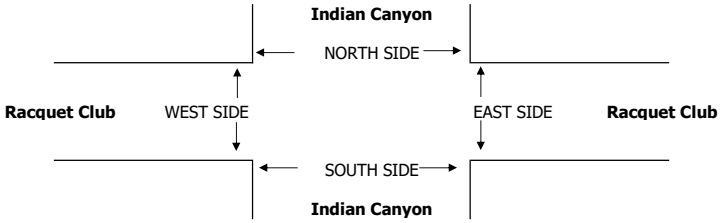
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Indian Canyon			SOUTHBOUND Indian Canyon			EASTBOUND Racquet Club			WESTBOUND Racquet Club			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
MIDDAY	11:00 AM	15	57	7	15	61	8	16	30	11	5	49	16	290
	11:15 AM	16	74	6	12	79	6	5	41	9	1	47	20	316
	11:30 AM	13	69	2	13	75	5	4	44	8	4	41	15	293
	11:45 AM	22	67	11	15	86	8	9	38	14	10	34	20	334
	12:00 PM	18	70	3	17	68	7	6	35	2	6	42	18	292
	12:15 PM	9	69	5	15	85	11	9	28	14	9	47	17	318
	12:30 PM	14	80	7	21	79	7	4	31	8	7	42	12	312
	12:45 PM	13	64	10	12	78	5	10	38	6	3	35	21	295
	VOLUMES	120	550	51	120	611	57	63	285	72	45	337	139	2,450
	APPROACH %	17%	76%	7%	15%	78%	7%	15%	68%	17%	9%	65%	27%	
	APP/DEPART	721	/	751	788	/	728	420	/	456	521	/	515	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	63	286	26	68	318	33	28	132	38	32	165	67	1,256
	APPROACH %	17%	76%	7%	16%	76%	8%	14%	67%	19%	12%	63%	25%	
	PEAK HR FACTOR		0.928			0.944			0.811			0.904		0.940
	APP/DEPART	375	/	381	419	/	388	198	/	226	264	/	261	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:45 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

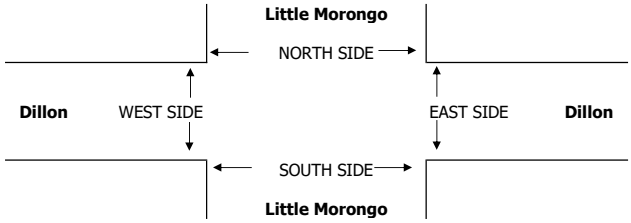
DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC2343
Tue, Sep 10, 19	NORTH & SOUTH:	Little Morongo	LOCATION #:	1
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Little Morongo			SOUTHBOUND Little Morongo			EASTBOUND Dillon			WESTBOUND Dillon				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	62	0	57	26	23	0	0	44	20	232	0	0	0	0	0
	7:15 AM	0	1	0	68	0	90	27	20	0	0	48	30	284	0	0	0	0	0
	7:30 AM	0	0	0	63	1	93	38	23	0	0	62	41	321	0	0	0	0	0
	7:45 AM	0	0	0	36	0	54	34	37	0	0	58	39	258	0	0	0	0	0
	8:00 AM	0	0	0	37	0	59	32	33	0	0	34	27	222	0	0	0	0	0
	8:15 AM	0	0	0	34	0	51	35	31	0	0	36	27	214	0	0	0	0	0
	8:30 AM	0	0	0	30	0	60	26	39	0	0	52	14	221	0	0	0	0	0
	8:45 AM	1	0	0	33	0	54	21	31	0	1	46	27	214	0	0	0	0	0
	VOLUMES	1	1	0	363	1	518	239	237	0	1	380	225	1,966	0	0	0	0	0
	APPROACH %	50%	50%	0%	41%	0%	59%	50%	50%	0%	0%	63%	37%						
	APP/DEPART	2	/	465	882	/	2	476	/	600	606	/	899	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	1	0	229	1	294	125	103	0	0	212	130	1,095					
	APPROACH %	0%	100%	0%	44%	0%	56%	55%	45%	0%	0%	62%	38%						
	PEAK HR FACTOR		0.250			0.829			0.803			0.830		0.853					
	APP/DEPART	1	/	256	524	/	1	228	/	332	342	/	506	0					
PM	4:00 PM	0	0	0	39	0	43	48	48	0	0	48	22	248	0	0	0	0	0
	4:15 PM	0	0	1	23	1	32	55	55	0	1	42	50	260	0	0	0	0	0
	4:30 PM	0	1	0	34	0	33	66	63	0	0	48	44	289	0	0	0	0	0
	4:45 PM	0	0	2	27	0	31	53	66	0	0	47	29	255	0	0	0	0	0
	5:00 PM	1	0	0	30	0	39	54	59	0	0	37	24	244	0	0	0	0	0
	5:15 PM	0	0	0	18	0	34	53	41	0	0	40	30	216	0	0	0	0	0
	5:30 PM	0	0	0	24	0	28	49	58	0	0	36	39	234	0	0	0	0	0
	5:45 PM	0	1	0	17	0	25	40	43	0	0	33	31	190	0	0	0	0	0
	VOLUMES	1	2	3	212	1	265	418	433	0	1	331	269	1,936	0	0	0	0	0
	APPROACH %	17%	33%	50%	44%	0%	55%	49%	51%	0%	0%	55%	45%						
	APP/DEPART	6	/	689	478	/	2	851	/	648	601	/	597	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1	3	123	1	139	222	232	0	1	185	145	1,052					
	APPROACH %	0%	25%	75%	47%	0%	53%	49%	51%	0%	0%	56%	44%						
	PEAK HR FACTOR		0.500			0.802			0.880			0.890		0.910					
	APP/DEPART	4	/	368	263	/	2	454	/	358	331	/	324	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Desert Hot Springs	PROJECT #:	SC2343
Sat, Sep 7, 19	NORTH & SOUTH:	Little Morongo	LOCATION #:	1
	EAST & WEST:	Dillon	CONTROL:	STOP ALL

NOTES:

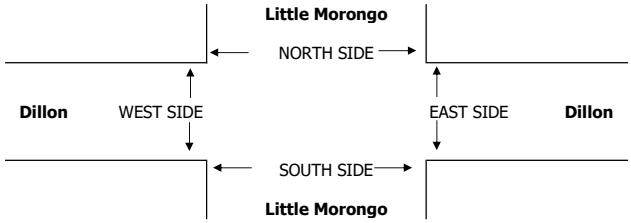
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Little Morongo			SOUTHBOUND Little Morongo			EASTBOUND Dillon			WESTBOUND Dillon			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
MIDDAY	11:00 AM	1	0	0	13	2	32	27	35	0	0	37	18	165
	11:15 AM	0	0	0	16	0	30	35	55	0	1	48	11	196
	11:30 AM	0	0	0	21	0	39	22	39	0	0	53	15	189
	11:45 AM	0	0	0	15	0	27	19	31	0	0	37	15	144
	12:00 PM	0	0	0	28	1	34	21	41	0	0	33	13	171
	12:15 PM	0	1	0	16	0	18	27	46	0	0	40	26	174
	12:30 PM	0	1	0	19	0	29	33	32	0	0	30	14	158
	12:45 PM	0	0	1	19	0	27	22	32	1	0	36	17	155
	VOLUMES	1	2	1	147	3	236	206	311	1	1	314	129	1,352
	APPROACH %	25%	50%	25%	38%	1%	61%	40%	60%	0%	0%	71%	29%	
	APP/DEPART	4	/	338	386	/	5	518	/	458	444	/	551	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	0	0	80	1	130	97	166	0	1	171	54	700
	APPROACH %	0%	0%	0%	38%	0%	62%	37%	63%	0%	0%	76%	24%	
	PEAK HR FACTOR		0.000			0.837			0.731			0.831		0.893
	APP/DEPART	0	/	152	211	/	2	263	/	245	226	/	301	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
MIDDAY	11:00 AM	0	0	0	0	0
	11:15 AM	0	0	0	0	0
	11:30 AM	0	0	0	0	0
	11:45 AM	0	0	0	0	0
	12:00 PM	0	0	0	0	0
	12:15 PM	0	0	0	0	0
	12:30 PM	0	0	0	0	0
	12:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0
	AM BEGIN PEAK HR	11:15 AM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

APPENDIX D

LEVEL OF SERVICE WORKSHEETS

Existing

Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\AM E.vistro
Report File: G:\...\AM E.pdf

Scenario 1 Existing (2021)
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	0.742	18.4	C
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	1.088	63.4	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.071	43.8	E
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.423	15.2	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.160	24.5	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.236	16.1	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.372	15.2	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.278	28.4	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.581	15.8	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.474	15.6	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	1.045	46.8	E

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.742

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	139	95	50	258	30	22	93	34	132	54	21
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	42	28	15	77	9	7	28	10	39	16	6
Total Analysis Volume [veh/h]	10	166	114	60	309	36	26	111	41	158	65	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	520	583	546	483	541	498
Degree of Utilization, x	0.34	0.20	0.74	0.28	0.08	0.50

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.48	0.72	6.35	1.16	0.24	2.74
95th-Percentile Queue Length [ft]	37.10	18.03	158.80	28.98	6.12	68.45
Approach Delay [s/veh]	12.05		26.24	12.36		17.20
Approach LOS	B		D	B		C
Intersection Delay [s/veh]	18.36					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	63.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.088

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	201	124	18	426	17	4	81	52	360	75	19
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	56	35	5	119	5	1	23	14	100	21	5
Total Analysis Volume [veh/h]	19	224	138	20	475	19	4	90	58	401	84	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	437	480	495	515	407	442	485	515
Degree of Utilization, x	0.56	0.29	1.06	0.04	0.23	0.13	1.09	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.30	1.18	15.43	0.11	0.88	0.45	16.17	0.13
95th-Percentile Queue Length [ft]	82.52	29.46	385.70	2.87	22.05	11.23	404.32	3.18
Approach Delay [s/veh]	18.01		82.60		13.38		93.07	
Approach LOS	C		F		B		F	
Intersection Delay [s/veh]	63.39							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	43.8
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.071

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	356	17	4	905	14	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	100	5	1	253	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	21	399	19	4	1013	16	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

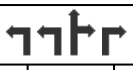
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.02	0.07	0.00	0.01
d_M, Delay for Movement [s/veh]	10.50	0.00	0.00	8.17	0.00	0.00	43.82	37.78	20.09	43.61	37.12	12.55
Movement LOS	B	A	A	A	A	A	E	E	C	E	E	B
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.01	0.01	0.31	0.31	0.31	0.26	0.26	0.26
95th-Percentile Queue Length [ft/ln]	2.41	0.00	0.00	0.26	0.26	0.26	7.72	7.72	7.72	6.49	6.49	6.49
d_A, Approach Delay [s/veh]	0.50			0.03			31.96			29.27		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	0.72											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.423

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	283	6	3	861	17	17	2	67	264	53	98
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	77	2	1	234	5	5	1	18	72	14	27
Total Analysis Volume [veh/h]	21	308	7	3	937	18	18	2	73	287	58	107
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	12	0	20	21	0	11	14	0	18	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	35	35	0	33	33	2	5	5	8	11	11
g / C, Green / Cycle	0.04	0.54	0.54	0.01	0.51	0.51	0.03	0.08	0.08	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.01	0.09	0.00	0.00	0.18	0.18	0.01	0.00	0.05	0.08	0.05	0.05
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1852	1781	1870	1589	3459	1766	1589
c, Capacity [veh/h]	65	1927	860	14	1824	949	58	154	131	415	300	270
d1, Uniform Delay [s]	30.20	7.41	6.80	31.71	9.28	9.29	30.41	27.09	28.37	27.14	23.28	23.28
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.84	0.18	0.02	7.94	0.52	0.99	3.05	0.03	3.67	2.07	0.53	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.16	0.01	0.22	0.34	0.34	0.31	0.01	0.56	0.69	0.29	0.29
d, Delay for Lane Group [s/veh]	33.03	7.59	6.82	39.65	9.80	10.28	33.46	27.13	32.04	29.21	23.81	23.87
Lane Group LOS	C	A	A	D	A	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.33	0.74	0.03	0.07	1.89	2.10	0.31	0.03	1.17	2.12	1.13	1.02
50th-Percentile Queue Length [ft/ln]	8.27	18.53	0.83	1.78	47.35	52.47	7.75	0.71	29.13	53.11	28.30	25.59
95th-Percentile Queue Length [veh/ln]	0.60	1.33	0.06	0.13	3.41	3.78	0.56	0.05	2.10	3.82	2.04	1.84
95th-Percentile Queue Length [ft/ln]	14.89	33.35	1.49	3.20	85.24	94.45	13.96	1.28	52.43	95.60	50.94	46.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.03	7.59	6.82	39.65	9.96	10.28	33.46	27.13	32.04	29.21	23.81	23.85
Movement LOS	C	A	A	D	A	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.16			10.06			32.21			27.25		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.24											
Intersection LOS	B											
Intersection V/C	0.423											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.848	2.159	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	250	531	313	531
d_b, Bicycle Delay [s]	24.50	17.26	22.78	17.26
l_b,int, Bicycle LOS Score for Intersection	1.837	2.087	1.713	2.305
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.160

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	381	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	3	1	0	1	2
Total Analysis Volume [veh/h]	428	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	37	0	42
g / C, Green / Cycle	0.17	0.17	0.62	0.01	0.69
(v / s)_i Volume / Saturation Flow Rate	0.12	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	598	275	1110	14	2471
d1, Uniform Delay [s]	23.48	20.70	4.36	29.67	2.82
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.61	0.05	0.01	7.76	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.04	0.00	0.22	0.00
d, Delay for Lane Group [s/veh]	25.09	20.76	4.36	37.43	2.82
Lane Group LOS	C	C	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.80	0.11	0.02	0.07	0.01
50th-Percentile Queue Length [ft/ln]	70.09	2.85	0.39	1.77	0.21
95th-Percentile Queue Length [veh/ln]	5.05	0.21	0.03	0.13	0.02
95th-Percentile Queue Length [ft/ln]	126.17	5.13	0.70	3.18	0.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.09	20.76	4.36	4.36	37.43	2.82
Movement LOS	C	C	A	A	D	A
d_A, Approach Delay [s/veh]	24.99		4.36		13.20	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.55					
Intersection LOS	C					
Intersection V/C	0.160					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.236

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	18	7	30	59	131
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	5	2	9	17	38
Total Analysis Volume [veh/h]	370	21	8	35	69	153
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	10	10	1	43	38	51
g / C, Green / Cycle	0.16	0.16	0.02	0.71	0.63	0.85
(v / s)_i Volume / Saturation Flow Rate	0.11	0.01	0.00	0.02	0.04	0.10
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	551	253	30	1323	1168	1352
d1, Uniform Delay [s]	23.80	21.54	29.22	2.62	4.40	0.75
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.43	0.14	4.76	0.04	0.10	0.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.08	0.27	0.03	0.06	0.11
d, Delay for Lane Group [s/veh]	25.23	21.68	33.98	2.66	4.50	0.78
Lane Group LOS	C	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.42	0.25	0.15	0.08	0.27	0.01
50th-Percentile Queue Length [ft/ln]	60.52	6.18	3.70	2.11	6.80	0.34
95th-Percentile Queue Length [veh/ln]	4.36	0.45	0.27	0.15	0.49	0.02
95th-Percentile Queue Length [ft/ln]	108.94	11.13	6.67	3.80	12.23	0.62

Movement, Approach, & Intersection Results

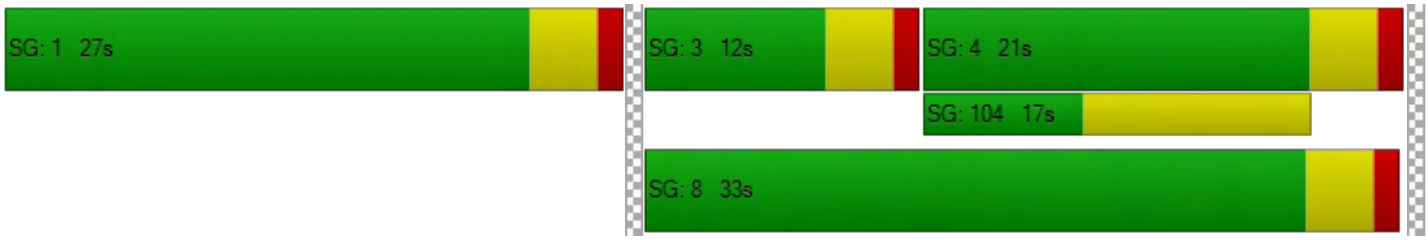
d_M, Delay for Movement [s/veh]	25.23	21.68	33.98	2.66	4.50	0.78
Movement LOS	C	C	C	A	A	A
d_A, Approach Delay [s/veh]	25.04		8.48		1.94	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	16.14					
Intersection LOS	B					
Intersection V/C	0.236					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.01	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.243	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.132	4.203	4.499
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.372

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	459	10	159	805	147	125	12	212	23	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	128	3	45	225	41	35	3	59	6	1	3
Total Analysis Volume [veh/h]	22	514	11	178	901	165	140	13	237	26	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	12	21	0	12	21	0	11	21	21	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	31	31	8	36	36	7	7	15	3	3
g / C, Green / Cycle	0.06	0.48	0.48	0.12	0.55	0.55	0.10	0.11	0.22	0.04	0.05
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.10	0.10	0.25	0.10	0.04	0.01	0.15	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1850	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	103	1712	890	221	1948	870	348	201	360	76	83
d1, Uniform Delay [s]	29.35	9.74	9.74	27.84	8.96	7.47	27.51	26.19	22.96	30.35	29.77
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	0.27	0.51	6.83	0.79	0.48	0.75	0.13	2.06	2.63	1.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.20	0.20	0.81	0.46	0.19	0.40	0.06	0.66	0.34	0.19
d, Delay for Lane Group [s/veh]	30.37	10.00	10.25	34.66	9.75	7.95	28.26	26.32	25.02	32.98	30.88
Lane Group LOS	C	B	B	C	A	A	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.32	1.08	1.19	2.76	2.71	0.88	1.01	0.18	3.31	0.44	0.26
50th-Percentile Queue Length [ft/ln]	8.00	27.10	29.82	69.00	67.64	21.93	25.35	4.53	82.75	10.93	6.43
95th-Percentile Queue Length [veh/ln]	0.58	1.95	2.15	4.97	4.87	1.58	1.83	0.33	5.96	0.79	0.46
95th-Percentile Queue Length [ft/ln]	14.41	48.79	53.67	124.19	121.75	39.48	45.63	8.16	148.95	19.67	11.57

Movement, Approach, & Intersection Results

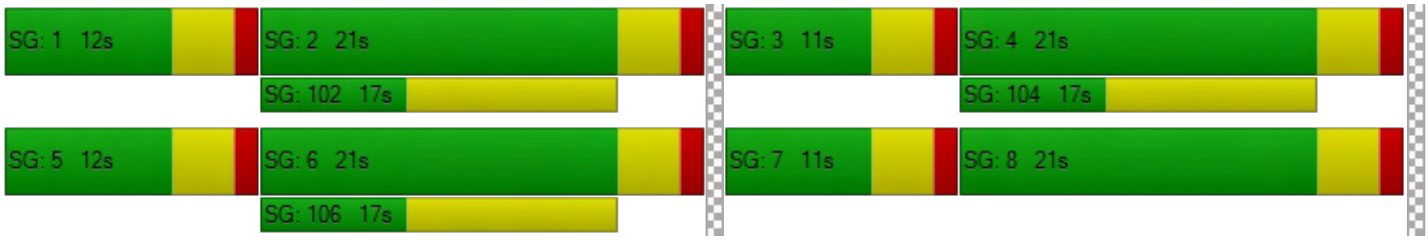
d_M, Delay for Movement [s/veh]	30.37	10.09	10.25	34.66	9.75	7.95	28.26	26.32	25.02	32.98	30.88	30.88
Movement LOS	C	B	B	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.91			13.08			26.23			32.18		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.21											
Intersection LOS	B											
Intersection V/C	0.372											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	22.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.063	2.530	2.002
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
l_b,int, Bicycle LOS Score for Intersection	1.860	2.586	2.203	1.629
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.278

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	452	1021	25	59	64
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	128	289	7	17	18
Total Analysis Volume [veh/h]	27	512	1158	28	67	73
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.28	0.16
d_M, Delay for Movement [s/veh]	11.46	0.00	0.00	0.00	28.43	21.33
Movement LOS	B	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	2.13	2.13
95th-Percentile Queue Length [ft/ln]	3.62	0.00	0.00	0.00	53.31	53.31
d_A, Approach Delay [s/veh]	0.57		0.00		24.73	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.02					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.581

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	362	10	206	908	36	50	62	40	27	69	152
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	104	3	59	260	10	14	18	11	8	20	44
Total Analysis Volume [veh/h]	33	415	11	236	1040	41	57	71	46	31	79	174
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	38	27	27	38	31	31	18	11	11	18	9	9
g / C, Green / Cycle	0.60	0.43	0.43	0.60	0.49	0.49	0.28	0.17	0.17	0.28	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.11	0.11	0.20	0.29	0.29	0.04	0.04	0.03	0.02	0.04	0.11
s, saturation flow rate [veh/h]	695	1870	1853	1154	1870	1845	1490	1870	1589	1459	1870	1589
c, Capacity [veh/h]	463	796	789	780	904	892	537	314	267	534	271	230
d1, Uniform Delay [s]	7.11	11.98	11.98	6.29	12.10	12.10	17.30	23.13	22.92	17.04	24.55	26.40
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.83	0.84	0.22	2.96	3.01	0.09	0.36	0.30	0.04	0.59	5.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.27	0.27	0.30	0.60	0.60	0.11	0.23	0.17	0.06	0.29	0.76
d, Delay for Lane Group [s/veh]	7.40	12.80	12.82	6.51	15.05	15.11	17.39	23.49	23.22	17.08	25.14	31.43
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.16	1.78	1.78	1.03	5.03	4.99	0.61	0.93	0.60	0.29	0.99	2.56
50th-Percentile Queue Length [ft/ln]	3.98	44.61	44.38	25.63	125.79	124.68	15.37	23.26	14.99	7.33	24.74	64.01
95th-Percentile Queue Length [veh/ln]	0.29	3.21	3.20	1.85	8.71	8.65	1.11	1.67	1.08	0.53	1.78	4.61
95th-Percentile Queue Length [ft/ln]	7.16	80.30	79.88	46.13	217.75	216.24	27.66	41.87	26.98	13.20	44.54	115.22

Movement, Approach, & Intersection Results

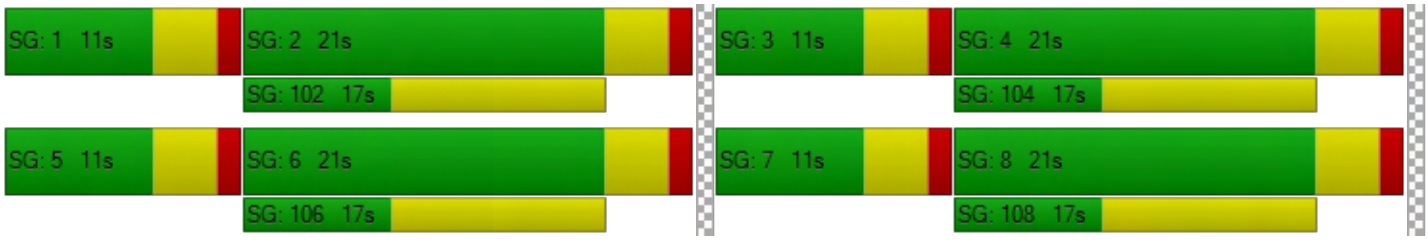
d_M, Delay for Movement [s/veh]	7.40	12.81	12.82	6.51	15.08	15.11	17.39	23.49	23.22	17.08	25.14	31.43
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	12.42			13.55			21.42			28.12		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.78											
Intersection LOS	B											
Intersection V/C	0.581											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.751	2.869	2.203	2.511
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.938	2.646	1.847	2.028
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.474

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	286	19	134	795	46	22	230	28	35	145	73
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	78	5	37	217	13	6	63	8	10	40	20
Total Analysis Volume [veh/h]	48	312	21	146	868	50	24	251	31	38	158	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	31	31	41	33	33	15	7	7	15	8	8
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.23	0.11	0.11	0.23	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.09	0.12	0.25	0.25	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	784	1870	1829	1200	1870	1834	1337	1870	1799	1352	1870	1666
c, Capacity [veh/h]	565	892	872	878	962	944	410	216	207	405	245	218
d1, Uniform Delay [s]	5.30	9.66	9.67	4.61	10.08	10.08	19.25	27.23	27.27	19.45	25.97	26.07
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.47	0.48	0.09	1.73	1.76	0.06	3.43	3.75	0.10	1.57	1.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.19	0.19	0.17	0.48	0.48	0.06	0.66	0.67	0.09	0.50	0.53
d, Delay for Lane Group [s/veh]	5.59	10.13	10.15	4.70	11.80	11.84	19.31	30.66	31.02	19.55	27.54	28.05
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	1.17	1.16	0.47	3.57	3.51	0.25	2.09	2.06	0.40	1.67	1.60
50th-Percentile Queue Length [ft/ln]	4.60	29.22	28.91	11.63	89.19	87.73	6.32	52.21	51.59	10.10	41.75	40.04
95th-Percentile Queue Length [veh/ln]	0.33	2.10	2.08	0.84	6.42	6.32	0.46	3.76	3.71	0.73	3.01	2.88
95th-Percentile Queue Length [ft/ln]	8.28	52.60	52.03	20.93	160.55	157.92	11.38	93.99	92.87	18.18	75.15	72.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.59	10.14	10.15	4.70	11.82	11.84	19.31	30.82	31.02	19.55	27.65	28.05
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	9.57			10.84			29.94			26.65		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.64											
Intersection LOS	B											
Intersection V/C	0.474											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.719	0.000	2.590
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.874	2.437	1.812	1.787
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	46.8
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.045

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	238	1	306	130	107	0	0	220	135
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	90	38	31	0	0	64	40
Total Analysis Volume [veh/h]	0	1	0	279	1	359	152	125	0	0	258	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	464	639	458	490	513	533
Degree of Utilization, x	0.00	1.04	0.33	0.26	0.00	0.78

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	17.28	1.44	1.01	0.00	7.15
95th-Percentile Queue Length [ft]	0.16	432.12	35.89	25.19	0.00	178.75
Approach Delay [s/veh]	10.79	72.52	13.58		29.37	
Approach LOS	B	F	B		D	
Intersection Delay [s/veh]	46.76					
Intersection LOS	E					

Coachillin Industrial Park Parcels 30-31

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Scenario 1 Existing (2021)
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.622	15.0	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.822	22.4	C
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.070	31.7	D
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.423	15.7	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.201	23.5	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.176	14.6	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.417	14.3	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.038	14.1	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.542	17.2	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.430	16.1	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.627	15.6	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.622

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	304	112	34	152	16	22	103	15	84	79	62
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	79	29	9	40	4	6	27	4	22	21	16
Total Analysis Volume [veh/h]	40	317	117	35	158	17	23	107	16	88	82	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	574	653	543	505	570	536
Degree of Utilization, x	0.62	0.18	0.39	0.26	0.03	0.44

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.27	0.65	1.81	1.02	0.09	2.22
95th-Percentile Queue Length [ft]	106.80	16.21	45.35	25.44	2.17	55.39
Approach Delay [s/veh]	16.45		13.75	11.94		14.88
Approach LOS	C		B	B		B
Intersection Delay [s/veh]	14.96					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.822

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	416	317	28	220	0	5	85	15	185	93	34
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	107	82	7	57	0	1	22	4	48	24	9
Total Analysis Volume [veh/h]	12	428	326	29	226	0	5	87	15	190	96	35
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	536	600	488	492	440	485	458	529
Degree of Utilization, x	0.82	0.54	0.52	0.00	0.21	0.03	0.62	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	8.20	3.26	2.98	0.00	0.78	0.10	4.18	0.21
95th-Percentile Queue Length [ft]	204.88	81.53	74.57	0.00	19.46	2.39	104.53	5.30
Approach Delay [s/veh]	25.77		17.89		12.65		21.38	
Approach LOS	D		C		B		C	
Intersection Delay [s/veh]	22.44							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	31.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.070

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	743	4	0	437	3	9	0	14	3	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	196	1	0	115	1	2	0	4	1	0	0
Total Analysis Volume [veh/h]	11	785	4	0	462	3	10	0	15	3	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

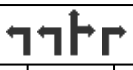
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.00	0.00	0.07	0.00	0.03	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	8.32	0.00	0.00	9.33	0.00	0.00	31.65	28.21	12.45	31.31	27.29	14.72
Movement LOS	A	A	A	A	A	A	D	D	B	D	D	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.00	0.00	0.00	0.31	0.31	0.31	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.76	0.00	0.00	0.00	0.00	0.00	7.80	7.80	7.80	1.84	1.84	1.84
d_A, Approach Delay [s/veh]	0.11			0.00			20.13			27.16		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	0.54											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.423

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	621	3	0	443	20	23	1	84	220	38	219
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	166	1	0	118	5	6	0	22	59	10	58
Total Analysis Volume [veh/h]	48	663	3	0	473	21	25	1	90	235	41	234
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	14	0	18	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	0	28	28	2	6	6	7	10	10
g / C, Green / Cycle	0.07	0.53	0.53	0.00	0.46	0.46	0.04	0.09	0.09	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.00	0.00	0.09	0.09	0.01	0.00	0.06	0.07	0.08	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1830	1781	1870	1589	3459	1662	1589
c, Capacity [veh/h]	119	1866	833	3	1634	840	76	174	148	400	276	264
d1, Uniform Delay [s]	26.97	8.39	6.84	0.00	9.71	9.72	28.04	24.82	26.29	25.29	22.90	22.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.18	0.53	0.01	0.00	0.27	0.54	2.52	0.01	4.01	1.37	1.45	1.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.36	0.00	0.00	0.20	0.20	0.33	0.01	0.61	0.59	0.51	0.51
d, Delay for Lane Group [s/veh]	29.15	8.92	6.85	0.00	9.98	10.26	30.56	24.83	30.31	26.67	24.34	24.41
Lane Group LOS	C	A	A	A	A	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.64	1.73	0.01	0.00	0.95	1.05	0.39	0.01	1.34	1.58	1.81	1.73
50th-Percentile Queue Length [ft/ln]	16.10	43.17	0.34	0.00	23.85	26.29	9.65	0.32	33.42	39.42	45.20	43.35
95th-Percentile Queue Length [veh/ln]	1.16	3.11	0.02	0.00	1.72	1.89	0.69	0.02	2.41	2.84	3.25	3.12
95th-Percentile Queue Length [ft/ln]	28.97	77.70	0.61	0.00	42.92	47.33	17.37	0.58	60.15	70.95	81.36	78.03

Movement, Approach, & Intersection Results

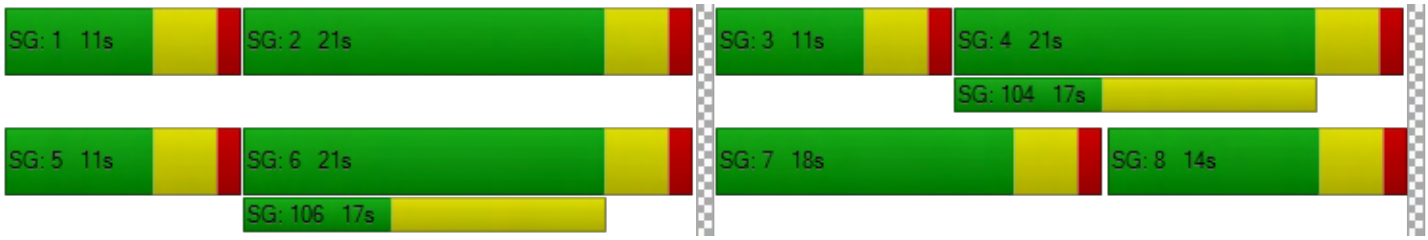
d_M, Delay for Movement [s/veh]	29.15	8.92	6.85	0.00	10.07	10.26	30.56	24.83	30.31	26.67	24.34	24.38
Movement LOS	C	A	A	A	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.27			10.08			30.32			25.43		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.70											
Intersection LOS	B											
Intersection V/C	0.423											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	20.01	20.01	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.852	2.164	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	567	333	567
d_b, Bicycle Delay [s]	15.41	15.41	20.83	15.41
l_b,int, Bicycle LOS Score for Intersection	2.149	1.831	1.751	2.401
Bicycle LOS	B	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.201

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	501	4	2	1	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	135	1	1	0	1	2
Total Analysis Volume [veh/h]	542	4	2	1	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	35	1	40
g / C, Green / Cycle	0.21	0.21	0.58	0.01	0.66
(v / s)_i Volume / Saturation Flow Rate	0.16	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1766	1781	3560
c, Capacity [veh/h]	723	332	1024	20	2342
d1, Uniform Delay [s]	22.31	18.86	5.31	29.48	3.53
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.59	0.01	0.01	6.17	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.01	0.00	0.25	0.00
d, Delay for Lane Group [s/veh]	23.90	18.88	5.32	35.65	3.53
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.48	0.04	0.01	0.10	0.02
50th-Percentile Queue Length [ft/ln]	86.96	1.07	0.34	2.58	0.38
95th-Percentile Queue Length [veh/ln]	6.26	0.08	0.02	0.19	0.03
95th-Percentile Queue Length [ft/ln]	156.53	1.92	0.62	4.64	0.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.90	18.88	5.32	5.32	35.65	3.53
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	23.86		5.32		14.24	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	23.51					
Intersection LOS	C					
Intersection V/C	0.201					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.137	4.145
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	208	11	10	68	56	97
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	3	3	20	17	29
Total Analysis Volume [veh/h]	248	13	12	81	67	116
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	18	0	21	42	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	7	1	45	40	51
g / C, Green / Cycle	0.12	0.12	0.02	0.75	0.66	0.84
(v / s)_i Volume / Saturation Flow Rate	0.07	0.01	0.01	0.04	0.04	0.07
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	407	187	41	1401	1233	1341
d1, Uniform Delay [s]	25.22	23.61	28.89	1.98	3.62	0.79
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.48	0.16	3.77	0.08	0.08	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.07	0.29	0.06	0.05	0.09
d, Delay for Lane Group [s/veh]	26.70	23.76	32.66	2.06	3.70	0.82
Lane Group LOS	C	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.67	0.16	0.21	0.14	0.22	0.01
50th-Percentile Queue Length [ft/ln]	41.66	4.08	5.14	3.50	5.54	0.26
95th-Percentile Queue Length [veh/ln]	3.00	0.29	0.37	0.25	0.40	0.02
95th-Percentile Queue Length [ft/ln]	74.99	7.35	9.26	6.30	9.97	0.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.70	23.76	32.66	2.06	3.70	0.82
Movement LOS	C	C	C	A	A	A
d_A, Approach Delay [s/veh]	26.55		6.00		1.87	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	14.58					
Intersection LOS	B					
Intersection V/C	0.176					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.01	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.203	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.286	4.434
Bicycle LOS	D	E	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.417

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	862	16	148	383	112	160	17	98	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	221	4	38	98	29	41	4	25	2	2	3
Total Analysis Volume [veh/h]	48	882	16	151	392	115	164	17	100	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	20	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	7	35	35	7	7	16	1	2
g / C, Green / Cycle	0.06	0.51	0.51	0.11	0.55	0.55	0.10	0.12	0.24	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.17	0.08	0.11	0.07	0.05	0.01	0.06	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1853	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	116	1805	940	193	1959	875	363	219	389	33	52
d1, Uniform Delay [s]	28.86	9.36	9.36	27.92	7.30	7.01	27.04	25.27	19.56	31.13	30.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	0.48	0.93	6.76	0.23	0.31	0.88	0.15	0.35	4.48	3.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.33	0.33	0.78	0.20	0.13	0.45	0.08	0.26	0.28	0.33
d, Delay for Lane Group [s/veh]	31.20	9.85	10.29	34.67	7.53	7.32	27.92	25.42	19.91	35.62	34.17
Lane Group LOS	C	A	B	C	A	A	C	C	B	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.70	1.79	1.98	2.32	0.93	0.57	1.17	0.23	1.17	0.17	0.30
50th-Percentile Queue Length [ft/ln]	17.49	44.82	49.62	58.07	23.32	14.14	29.25	5.74	29.22	4.32	7.50
95th-Percentile Queue Length [veh/ln]	1.26	3.23	3.57	4.18	1.68	1.02	2.11	0.41	2.10	0.31	0.54
95th-Percentile Queue Length [ft/ln]	31.48	80.68	89.32	104.52	41.97	25.44	52.65	10.33	52.59	7.78	13.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.20	9.99	10.29	34.67	7.53	7.32	27.92	25.42	19.91	35.62	34.17	34.17
Movement LOS	C	A	B	C	A	A	C	C	B	D	C	C
d_A, Approach Delay [s/veh]	11.07			13.72			24.92			34.67		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.34											
Intersection LOS	B											
Intersection V/C	0.417											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.013	2.507	1.990
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.080	2.102	2.023	1.603
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	799	491	25	15	27
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	209	129	7	4	7
Total Analysis Volume [veh/h]	46	838	515	26	16	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.01	0.00	0.04	0.04
d_M, Delay for Movement [s/veh]	8.68	0.00	0.00	0.00	14.09	10.36
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.25	0.25
95th-Percentile Queue Length [ft/ln]	3.52	0.00	0.00	0.00	6.14	6.14
d_A, Approach Delay [s/veh]	0.45		0.00		11.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.62					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.542

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	643	26	106	420	51	69	58	24	23	79	208
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	174	7	29	114	14	19	16	6	6	21	56
Total Analysis Volume [veh/h]	49	695	28	115	454	55	75	63	26	25	85	225
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	36	25	25	36	27	27	21	14	14	21	11	11
g / C, Green / Cycle	0.56	0.40	0.40	0.56	0.43	0.43	0.32	0.22	0.22	0.32	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.19	0.19	0.12	0.14	0.14	0.05	0.03	0.02	0.02	0.05	0.14
s, saturation flow rate [veh/h]	1047	1870	1845	973	1870	1800	1478	1870	1589	1439	1870	1589
c, Capacity [veh/h]	660	738	728	595	796	766	593	407	346	595	330	281
d1, Uniform Delay [s]	6.90	14.62	14.62	7.72	12.30	12.31	15.49	20.35	20.00	15.02	22.83	25.38
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	2.35	2.38	0.16	1.09	1.14	0.09	0.17	0.09	0.03	0.41	5.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.49	0.49	0.19	0.33	0.33	0.13	0.15	0.08	0.04	0.26	0.80
d, Delay for Lane Group [s/veh]	7.12	16.97	17.01	7.88	13.39	13.45	15.59	20.53	20.09	15.05	23.24	30.66
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	3.73	3.69	0.56	2.23	2.17	0.76	0.76	0.31	0.22	1.01	3.27
50th-Percentile Queue Length [ft/ln]	6.49	93.18	92.15	14.05	55.75	54.20	18.90	18.89	7.68	5.39	25.18	81.65
95th-Percentile Queue Length [veh/ln]	0.47	6.71	6.63	1.01	4.01	3.90	1.36	1.36	0.55	0.39	1.81	5.88
95th-Percentile Queue Length [ft/ln]	11.69	167.72	165.86	25.28	100.35	97.57	34.02	34.01	13.82	9.71	45.32	146.96

Movement, Approach, & Intersection Results

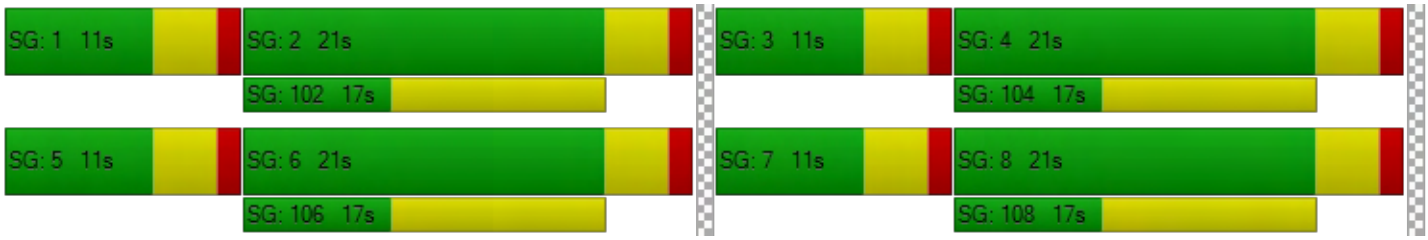
d_M, Delay for Movement [s/veh]	7.12	16.99	17.01	7.88	13.42	13.45	15.59	20.53	20.09	15.05	23.24	30.66
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	16.36			12.40			18.20			27.61		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	17.20											
Intersection LOS	B											
Intersection V/C	0.542											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.777	2.216	2.402
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	2.197	2.074	1.830	2.112
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.430

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	607	18	89	367	20	40	136	20	15	231	102
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	159	5	23	96	5	10	36	5	4	61	27
Total Analysis Volume [veh/h]	58	636	19	93	385	21	42	143	21	16	242	107
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	19	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	30	30	39	31	31	17	11	11	17	9	9
g / C, Green / Cycle	0.62	0.46	0.46	0.62	0.48	0.48	0.26	0.17	0.17	0.26	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.18	0.18	0.10	0.11	0.11	0.03	0.04	0.05	0.01	0.10	0.10
s, saturation flow rate [veh/h]	1115	1870	1851	977	1870	1836	1293	1870	1788	1351	1870	1682
c, Capacity [veh/h]	783	863	854	671	896	880	408	318	304	476	261	234
d1, Uniform Delay [s]	5.12	11.32	11.32	5.61	9.79	9.80	18.25	23.17	23.20	17.73	26.35	26.46
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.18	1.28	1.30	0.09	0.59	0.61	0.11	0.43	0.47	0.03	3.27	4.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.38	0.38	0.14	0.23	0.23	0.10	0.26	0.27	0.03	0.69	0.72
d, Delay for Lane Group [s/veh]	5.30	12.60	12.62	5.70	10.39	10.41	18.36	23.60	23.67	17.76	29.62	30.60
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	2.70	2.68	0.34	1.45	1.43	0.43	1.01	1.00	0.16	2.59	2.48
50th-Percentile Queue Length [ft/ln]	5.93	67.50	66.95	8.50	36.25	35.83	10.66	25.26	24.91	3.98	64.68	61.98
95th-Percentile Queue Length [veh/ln]	0.43	4.86	4.82	0.61	2.61	2.58	0.77	1.82	1.79	0.29	4.66	4.46
95th-Percentile Queue Length [ft/ln]	10.67	121.50	120.52	15.29	65.24	64.50	19.18	45.46	44.84	7.16	116.43	111.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.30	12.61	12.62	5.70	10.40	10.41	18.36	23.63	23.67	17.76	29.87	30.60
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	12.01			9.52			22.56			29.55		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	16.13											
Intersection LOS	B											
Intersection V/C	0.430											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.667	0.000	2.528
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	469	531
d_b, Bicycle Delay [s]	17.26	17.26	18.76	17.26
l_b,int, Bicycle LOS Score for Intersection	2.148	1.971	1.730	1.861
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.627

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	3	128	1	145	231	241	0	1	192	151
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	35	0	40	63	66	0	0	53	41
Total Analysis Volume [veh/h]	0	1	3	141	1	159	254	265	0	1	211	166
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	542	604	545	591	529	602
Degree of Utilization, x	0.01	0.50	0.47	0.45	0.00	0.63

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	2.78	2.45	2.31	0.01	4.36
95th-Percentile Queue Length [ft]	0.56	69.40	61.34	57.79	0.14	108.97
Approach Delay [s/veh]	9.69	14.73	14.29		18.17	
Approach LOS	A	B	B		C	
Intersection Delay [s/veh]	15.60					
Intersection LOS	C					

Coachillin Industrial Park Parcels 30-31

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Report File: G:\...\SAT E.pdf

Scenario 1 Existing (2021)
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.370	11.6	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	0.560	14.1	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.040	18.6	C
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.229	13.9	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.103	25.4	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.155	16.3	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.270	14.9	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.034	11.7	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.300	13.9	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.283	15.8	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.395	10.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.370

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	159	47	26	149	26	12	80	24	55	104	35
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	44	13	7	42	7	3	22	7	15	29	10
Total Analysis Volume [veh/h]	19	177	52	29	166	29	13	89	27	61	116	39
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	601	689	605	568	647	592
Degree of Utilization, x	0.33	0.08	0.37	0.18	0.04	0.36

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.41	0.24	1.70	0.65	0.13	1.66
95th-Percentile Queue Length [ft]	35.28	6.11	42.58	16.23	3.26	41.58
Approach Delay [s/veh]	10.88		12.41	10.02		12.53
Approach LOS	B		B	B		B
Intersection Delay [s/veh]	11.60					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.560

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	211	168	21	216	3	4	58	21	193	84	19
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	56	44	6	57	1	1	15	6	51	22	5
Total Analysis Volume [veh/h]	8	223	178	22	228	3	4	61	22	204	89	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	567	639	554	625	508	568	523	618
Degree of Utilization, x	0.41	0.28	0.45	0.00	0.13	0.04	0.56	0.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.97	1.13	2.33	0.01	0.44	0.12	3.42	0.10
95th-Percentile Queue Length [ft]	49.29	28.36	58.25	0.36	10.91	3.02	85.41	2.51
Approach Delay [s/veh]	12.10		14.39		10.43		17.40	
Approach LOS	B		B		B		C	
Intersection Delay [s/veh]	14.07							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.040

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	359	18	1	423	5	11	0	10	1	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	91	5	0	108	1	3	0	3	0	0	1
Total Analysis Volume [veh/h]	18	366	18	1	431	5	11	0	10	1	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.26	0.00	0.00	8.07	0.00	0.00	18.56	17.96	11.35	18.20	17.35	10.42
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.18	0.02	0.02	0.02
95th-Percentile Queue Length [ft/ln]	1.22	0.00	0.00	0.06	0.06	0.06	4.41	4.41	4.41	0.50	0.50	0.50
d_A, Approach Delay [s/veh]	0.37			0.02			15.13			13.01		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	0.59											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.229

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	276	9	6	399	11	21	4	51	137	19	101
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	74	2	2	107	3	6	1	14	37	5	27
Total Analysis Volume [veh/h]	17	296	10	6	428	12	23	4	55	147	20	108
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	19	0	13	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	32	32	1	31	31	2	4	4	6	9	9
g / C, Green / Cycle	0.03	0.54	0.54	0.01	0.52	0.52	0.04	0.07	0.07	0.11	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.01	0.08	0.01	0.00	0.08	0.08	0.01	0.00	0.03	0.04	0.04	0.04
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1844	1781	1870	1589	3459	1666	1589
c, Capacity [veh/h]	56	1914	855	24	1850	958	71	141	120	375	240	229
d1, Uniform Delay [s]	28.56	7.03	6.49	29.45	7.57	7.58	28.16	25.83	26.70	25.03	22.99	23.00
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.03	0.17	0.02	5.47	0.18	0.35	2.61	0.08	2.72	0.67	0.61	0.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.30	0.15	0.01	0.25	0.16	0.16	0.32	0.03	0.46	0.39	0.27	0.27
d, Delay for Lane Group [s/veh]	31.59	7.20	6.51	34.92	7.75	7.93	30.78	25.91	29.42	25.70	23.60	23.64
Lane Group LOS	C	A	A	C	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.26	0.64	0.04	0.11	0.67	0.74	0.36	0.05	0.81	0.96	0.82	0.79
50th-Percentile Queue Length [ft/ln]	6.40	15.94	1.07	2.78	16.76	18.61	8.96	1.34	20.19	23.95	20.41	19.68
95th-Percentile Queue Length [veh/ln]	0.46	1.15	0.08	0.20	1.21	1.34	0.65	0.10	1.45	1.72	1.47	1.42
95th-Percentile Queue Length [ft/ln]	11.52	28.69	1.93	5.00	30.17	33.50	16.14	2.41	36.33	43.11	36.74	35.43

Movement, Approach, & Intersection Results

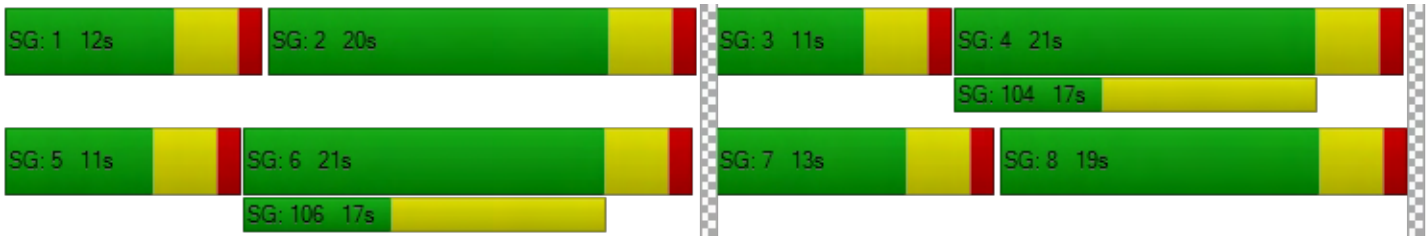
d_M, Delay for Movement [s/veh]	31.59	7.20	6.51	34.92	7.81	7.93	30.78	25.91	29.42	25.70	23.60	23.63
Movement LOS	C	A	A	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.46			8.18			29.63			24.73		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	13.87											
Intersection LOS	B											
Intersection V/C	0.229											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	20.01	20.01	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.690	2.140	0.000
Crosswalk LOS	F	B	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	567	500	567
d_b, Bicycle Delay [s]	16.13	15.41	16.88	15.41
l_b,int, Bicycle LOS Score for Intersection	1.826	1.805	1.695	2.013
Bicycle LOS	A	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.103

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	259	2	5	1	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	1	1	0	0	3
Total Analysis Volume [veh/h]	273	2	5	1	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	41	0	45
g / C, Green / Cycle	0.12	0.12	0.68	0.00	0.75
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1817	1781	3560
c, Capacity [veh/h]	422	194	1229	3	2652
d1, Uniform Delay [s]	25.17	23.21	3.16	0.00	1.96
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.67	0.02	0.01	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.01	0.00	0.00	0.00
d, Delay for Lane Group [s/veh]	26.84	23.23	3.17	0.00	1.97
Lane Group LOS	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.84	0.02	0.02	0.00	0.01
50th-Percentile Queue Length [ft/ln]	46.10	0.62	0.44	0.00	0.21
95th-Percentile Queue Length [veh/ln]	3.32	0.04	0.03	0.00	0.02
95th-Percentile Queue Length [ft/ln]	82.97	1.11	0.78	0.00	0.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.84	23.23	3.17	3.17	0.00	1.97
Movement LOS	C	C	A	A	A	A
d_A, Approach Delay [s/veh]	26.81		3.17		1.97	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	25.39					
Intersection LOS	C					
Intersection V/C	0.103					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.142	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.155

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	200	8	12	31	33	87
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	2	3	9	9	24
Total Analysis Volume [veh/h]	223	9	13	35	37	97
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	7	7	1	45	40	51
g / C, Green / Cycle	0.12	0.12	0.02	0.75	0.66	0.84
(v / s)_i Volume / Saturation Flow Rate	0.06	0.01	0.01	0.02	0.02	0.06
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	406	187	44	1402	1231	1339
d1, Uniform Delay [s]	25.05	23.57	28.81	1.92	3.58	0.80
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.16	0.11	3.60	0.03	0.05	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.05	0.29	0.02	0.03	0.07
d, Delay for Lane Group [s/veh]	26.21	23.67	32.42	1.95	3.63	0.82
Lane Group LOS	C	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.48	0.11	0.22	0.06	0.12	0.01
50th-Percentile Queue Length [ft/ln]	36.96	2.82	5.50	1.47	3.03	0.21
95th-Percentile Queue Length [veh/ln]	2.66	0.20	0.40	0.11	0.22	0.02
95th-Percentile Queue Length [ft/ln]	66.53	5.08	9.90	2.64	5.45	0.38

Movement, Approach, & Intersection Results

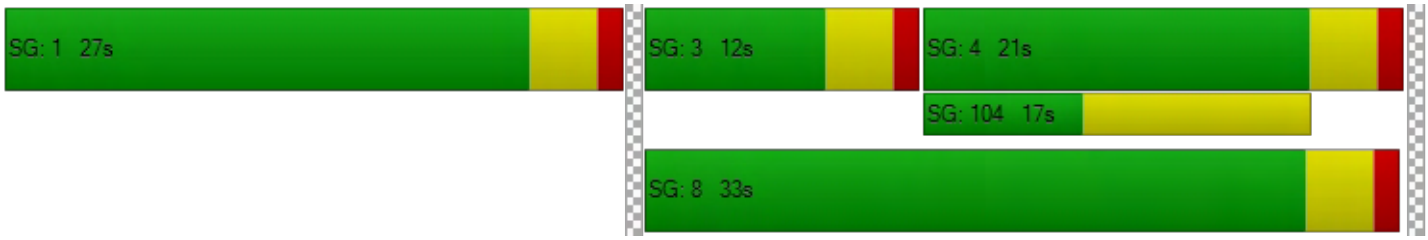
d_M, Delay for Movement [s/veh]	26.21	23.67	32.42	1.95	3.63	0.82
Movement LOS	C	C	C	A	A	A
d_A, Approach Delay [s/veh]	26.11		10.20		1.60	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.33					
Intersection LOS	B					
Intersection V/C	0.155					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.01	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.192	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
I_b,int, Bicycle LOS Score for Intersection	4.132	4.212	4.354
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.270

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	348	20	115	310	85	128	11	93	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	93	5	31	83	23	34	3	25	2	2	3
Total Analysis Volume [veh/h]	47	372	21	123	331	91	137	12	99	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	20	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	6	36	36	6	8	16	1	2
g / C, Green / Cycle	0.06	0.52	0.52	0.10	0.55	0.55	0.10	0.12	0.25	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.07	0.07	0.09	0.06	0.04	0.01	0.06	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1820	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	115	1842	941	176	1964	877	351	228	395	23	56
d1, Uniform Delay [s]	28.90	8.08	8.09	28.03	7.12	6.85	27.02	24.94	19.36	31.41	30.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	0.16	0.32	4.93	0.19	0.24	0.71	0.09	0.33	5.66	3.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.14	0.14	0.70	0.17	0.10	0.39	0.05	0.25	0.26	0.34
d, Delay for Lane Group [s/veh]	31.23	8.24	8.40	32.97	7.31	7.09	27.73	25.04	19.69	37.07	33.88
Lane Group LOS	C	A	A	C	A	A	C	C	B	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.69	0.68	0.74	1.83	0.77	0.44	0.97	0.16	1.15	0.13	0.33
50th-Percentile Queue Length [ft/ln]	17.15	16.88	18.52	45.84	19.16	10.91	24.29	4.01	28.71	3.13	8.27
95th-Percentile Queue Length [veh/ln]	1.23	1.22	1.33	3.30	1.38	0.79	1.75	0.29	2.07	0.23	0.60
95th-Percentile Queue Length [ft/ln]	30.87	30.38	33.33	82.50	34.50	19.65	43.73	7.21	51.69	5.64	14.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.23	8.29	8.40	32.97	7.31	7.09	27.73	25.04	19.69	37.07	33.88	33.88
Movement LOS	C	A	A	C	A	A	C	C	B	D	C	C
d_A, Approach Delay [s/veh]	10.75			13.06			24.39			34.65		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.91											
Intersection LOS	B											
Intersection V/C	0.270											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.848	2.498	1.980
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	1.802	2.009	1.969	1.601
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	385	401	12	19	16
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	98	102	3	5	4
Total Analysis Volume [veh/h]	16	392	409	12	19	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.03	0.02
d_M, Delay for Movement [s/veh]	8.22	0.00	0.00	0.00	11.71	9.80
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.17	0.17
95th-Percentile Queue Length [ft/ln]	1.07	0.00	0.00	0.00	4.25	4.25
d_A, Approach Delay [s/veh]	0.32		0.00		10.84	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.300

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	321	17	109	340	55	49	64	33	24	74	113
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	84	4	28	88	14	13	17	9	6	19	29
Total Analysis Volume [veh/h]	36	334	18	113	354	57	51	67	34	25	77	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	31	31	41	34	34	15	9	9	15	7	7
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.24	0.13	0.13	0.24	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.10	0.10	0.11	0.11	0.03	0.04	0.02	0.02	0.04	0.07
s, saturation flow rate [veh/h]	1082	1870	1837	1179	1870	1781	1513	1870	1589	1471	1870	1589
c, Capacity [veh/h]	791	896	880	857	975	929	481	250	212	479	201	171
d1, Uniform Delay [s]	4.46	9.63	9.63	4.63	8.28	8.29	19.28	25.02	24.65	18.98	26.69	27.65
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.49	0.51	0.07	0.50	0.54	0.10	0.57	0.35	0.04	1.19	4.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.20	0.20	0.13	0.21	0.22	0.11	0.27	0.16	0.05	0.38	0.69
d, Delay for Lane Group [s/veh]	4.57	10.12	10.14	4.70	8.79	8.83	19.37	25.59	25.00	19.02	27.88	32.53
Lane Group LOS	A	B	B	A	A	A	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.13	1.23	1.22	0.36	1.30	1.25	0.59	0.93	0.47	0.26	1.04	1.78
50th-Percentile Queue Length [ft/ln]	3.22	30.80	30.53	9.03	32.38	31.37	14.70	23.21	11.63	6.38	26.00	44.42
95th-Percentile Queue Length [veh/ln]	0.23	2.22	2.20	0.65	2.33	2.26	1.06	1.67	0.84	0.46	1.87	3.20
95th-Percentile Queue Length [ft/ln]	5.80	55.44	54.95	16.25	58.29	56.46	26.47	41.78	20.93	11.48	46.80	79.96

Movement, Approach, & Intersection Results

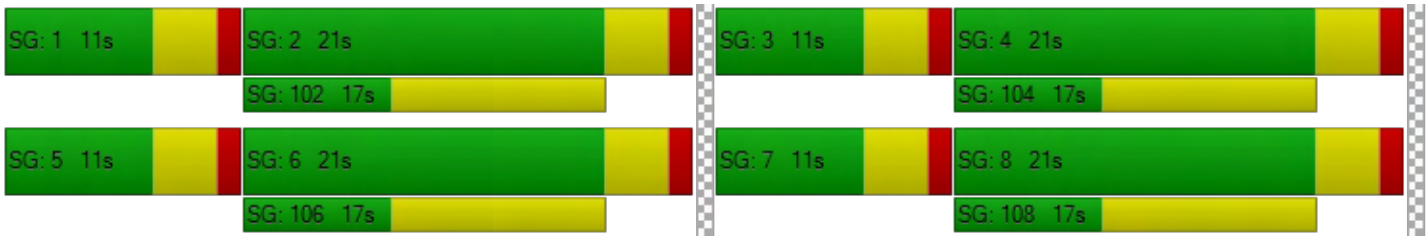
d_M, Delay for Movement [s/veh]	4.57	10.13	10.14	4.70	8.80	8.83	19.37	25.59	25.00	19.02	27.88	32.53
Movement LOS	A	B	B	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	9.61			7.92			23.37			29.37		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	13.94											
Intersection LOS	B											
Intersection V/C	0.300											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.521	2.591	2.206	2.364
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.880	1.992	1.810	1.923
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.283

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	297	27	71	331	34	29	137	40	33	172	70
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	79	7	19	88	9	8	36	11	9	46	19
Total Analysis Volume [veh/h]	70	316	29	76	352	36	31	146	43	35	183	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	42	33	33	42	33	33	14	7	7	14	7	7
g / C, Green / Cycle	0.65	0.51	0.51	0.65	0.51	0.51	0.22	0.11	0.11	0.22	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.09	0.07	0.10	0.11	0.02	0.05	0.05	0.02	0.07	0.07
s, saturation flow rate [veh/h]	1129	1870	1816	1166	1870	1810	1359	1870	1729	1416	1870	1693
c, Capacity [veh/h]	840	949	921	869	955	924	394	200	185	427	208	189
d1, Uniform Delay [s]	4.18	8.60	8.60	4.16	8.60	8.61	19.92	27.01	27.08	19.89	27.30	27.40
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	0.43	0.44	0.04	0.49	0.51	0.08	1.77	2.10	0.08	3.15	3.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.18	0.19	0.09	0.21	0.21	0.08	0.48	0.50	0.08	0.63	0.66
d, Delay for Lane Group [s/veh]	4.37	9.02	9.05	4.20	9.09	9.12	20.01	28.78	29.17	19.97	30.45	31.35
Lane Group LOS	A	A	A	A	A	A	C	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.23	1.10	1.09	0.22	1.25	1.23	0.33	1.35	1.32	0.38	1.92	1.87
50th-Percentile Queue Length [ft/ln]	5.85	27.62	27.19	5.40	31.25	30.66	8.37	33.73	33.05	9.45	48.10	46.67
95th-Percentile Queue Length [veh/ln]	0.42	1.99	1.96	0.39	2.25	2.21	0.60	2.43	2.38	0.68	3.46	3.36
95th-Percentile Queue Length [ft/ln]	10.54	49.72	48.94	9.72	56.25	55.18	15.06	60.72	59.49	17.01	86.57	84.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.37	9.03	9.05	4.20	9.10	9.12	20.01	28.92	29.17	19.97	30.70	31.35
Movement LOS	A	A	A	A	A	A	C	C	C	B	C	C
d_A, Approach Delay [s/veh]	8.25			8.30			27.71			29.58		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.82											
Intersection LOS	B											
Intersection V/C	0.283											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.546	0.000	2.498
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
I_b,int, Bicycle LOS Score for Intersection	1.902	1.942	1.741	1.801
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.395

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	83	1	135	101	173	0	1	178	56
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	23	0	38	28	48	0	0	50	16
Total Analysis Volume [veh/h]	0	0	0	93	1	151	113	194	0	1	199	63
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	616	709	596	651	589	662
Degree of Utilization, x	0.00	0.35	0.19	0.30	0.00	0.40

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.00	1.54	0.69	1.25	0.01	1.89
95th-Percentile Queue Length [ft]	0.00	38.57	17.33	31.16	0.13	47.28
Approach Delay [s/veh]	0.00	10.73	10.41		11.63	
Approach LOS	A	B	B		B	
Intersection Delay [s/veh]	10.90					
Intersection LOS	B					

Existing Plus Project Without Amphitheater Event

Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\AM E.vistro

Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

Report File: G:\...\AM EP.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	0.755	18.9	C
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	1.126	70.3	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.005	10.5	B
4	Project Dwy (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.003	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.550	61.5	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.120	73.2	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.441	16.0	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.215	24.9	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.287	16.2	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.374	15.6	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.288	28.9	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.569	15.9	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.475	15.7	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	1.055	48.9	E
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.002	12.2	B
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	12.4	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	1	0	4	0	0	0	0	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	140	96	50	262	30	22	93	34	138	54	21
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	42	29	15	78	9	7	28	10	41	16	6
Total Analysis Volume [veh/h]	10	167	115	60	313	36	26	111	41	165	65	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	516	577	541	479	536	495
Degree of Utilization, x	0.34	0.20	0.76	0.29	0.08	0.52

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.51	0.74	6.62	1.17	0.25	2.91
95th-Percentile Queue Length [ft]	37.86	18.44	165.40	29.30	6.18	72.68
Approach Delay [s/veh]	12.19		27.32	12.47		17.75
Approach LOS	B		D	B		C
Intersection Delay [s/veh]	18.94					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	70.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.126

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	2	3	0	10	0	0	0	11	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	203	127	18	436	17	4	81	63	372	75	19
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	35	5	122	5	1	23	18	104	21	5
Total Analysis Volume [veh/h]	21	226	142	20	486	19	4	90	70	415	84	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	436	478	506	512	406	441	499	512
Degree of Utilization, x	0.57	0.30	1.09	0.04	0.23	0.16	1.13	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.43	1.23	16.55	0.12	0.88	0.56	17.61	0.13
95th-Percentile Queue Length [ft]	85.80	30.83	413.82	2.89	22.11	13.99	440.28	3.20
Approach Delay [s/veh]	18.39		91.67		13.45		105.35	
Approach LOS	C		F		B		F	
Intersection Delay [s/veh]	70.25							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	10	17	16	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	371	10	17	938	0	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	3	4	247	0	1
Total Analysis Volume [veh/h]	391	11	18	987	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.16	0.00	0.00	10.50
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.19	0.00	0.00	0.34
d_A, Approach Delay [s/veh]	0.00		0.15		10.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	27	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	0
Total Analysis Volume [veh/h]	3	0	0	28	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.27	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	61.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	168	16	0	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	378	168	16	922	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	44	4	243	18	1
Total Analysis Volume [veh/h]	398	177	17	971	72	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.01	0.55	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.67	0.00	61.49	40.20
Movement LOS	A	A	A	A	F	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	2.74	2.74
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.22	1.22	68.52	68.52
d_A, Approach Delay [s/veh]	0.00		0.15		60.63	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	2.87					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	73.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	222	0	0	68	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	578	17	4	973	14	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	162	5	1	272	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	21	647	19	4	1090	16	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.12	0.00	0.03	0.12	0.00	0.01
d_M, Delay for Movement [s/veh]	10.90	0.00	0.00	8.92	0.00	0.00	73.21	59.57	25.34	73.05	58.72	18.42
Movement LOS	B	A	A	A	A	A	F	F	D	F	F	C
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.01	0.01	0.49	0.49	0.49	0.45	0.45	0.45
95th-Percentile Queue Length [ft/ln]	2.58	0.00	0.00	0.33	0.33	0.33	12.34	12.34	12.34	11.15	11.15	11.15
d_A, Approach Delay [s/veh]	0.33			0.03			49.27			47.84		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	0.86											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.441

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	76	0	0	68	0	0	0	0	0	0	146
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	359	6	3	929	17	17	2	67	264	53	244
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	98	2	1	253	5	5	1	18	72	14	66
Total Analysis Volume [veh/h]	21	391	7	3	1011	18	18	2	73	287	58	266
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	15	0	17	21	0	11	15	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	35	35	0	33	33	2	5	5	8	11	11
g / C, Green / Cycle	0.04	0.54	0.54	0.01	0.52	0.52	0.03	0.08	0.08	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.00	0.00	0.19	0.19	0.01	0.00	0.05	0.08	0.10	0.10
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1853	1781	1870	1589	3459	1677	1589
c, Capacity [veh/h]	65	1929	861	14	1826	951	58	154	131	413	284	269
d1, Uniform Delay [s]	30.20	7.58	6.78	31.71	9.41	9.42	30.41	27.09	28.37	27.18	24.61	24.62
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.84	0.24	0.02	7.94	0.58	1.11	3.05	0.03	3.67	2.12	1.91	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.20	0.01	0.22	0.37	0.37	0.31	0.01	0.56	0.70	0.58	0.59
d, Delay for Lane Group [s/veh]	33.03	7.82	6.80	39.65	9.99	10.53	33.46	27.13	32.04	29.30	26.52	26.64
Lane Group LOS	C	A	A	D	A	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.33	0.96	0.03	0.07	2.07	2.30	0.31	0.03	1.17	2.13	2.35	2.24
50th-Percentile Queue Length [ft/ln]	8.27	24.11	0.82	1.78	51.83	57.52	7.75	0.71	29.13	53.21	58.74	56.07
95th-Percentile Queue Length [veh/ln]	0.60	1.74	0.06	0.13	3.73	4.14	0.56	0.05	2.10	3.83	4.23	4.04
95th-Percentile Queue Length [ft/ln]	14.89	43.40	1.48	3.20	93.30	103.54	13.96	1.28	52.43	95.78	105.73	100.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.03	7.82	6.80	39.65	10.17	10.53	33.46	27.13	32.04	29.30	26.52	26.59
Movement LOS	C	A	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.07			10.26			32.21			27.86		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.96											
Intersection LOS	B											
Intersection V/C	0.441											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.943	2.159	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	344	531	344	531
d_b, Bicycle Delay [s]	21.95	17.26	21.95	17.26
l_b,int, Bicycle LOS Score for Intersection	1.905	2.127	1.713	2.568
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	146	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	527	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	148	3	1	0	1	2
Total Analysis Volume [veh/h]	592	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	31	0	11	0	18	29
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	38	0	42
g / C, Green / Cycle	0.22	0.22	0.59	0.01	0.66
(v / s)_i Volume / Saturation Flow Rate	0.17	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	760	349	1049	13	2334
d1, Uniform Delay [s]	23.55	19.64	5.52	31.64	3.82
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.77	0.03	0.01	8.09	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.03	0.00	0.22	0.00
d, Delay for Lane Group [s/veh]	25.32	19.68	5.53	39.74	3.82
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.12	0.11	0.02	0.07	0.01
50th-Percentile Queue Length [ft/ln]	103.00	2.85	0.50	1.87	0.30
95th-Percentile Queue Length [veh/ln]	7.42	0.21	0.04	0.13	0.02
95th-Percentile Queue Length [ft/ln]	185.39	5.13	0.89	3.36	0.54

Movement, Approach, & Intersection Results

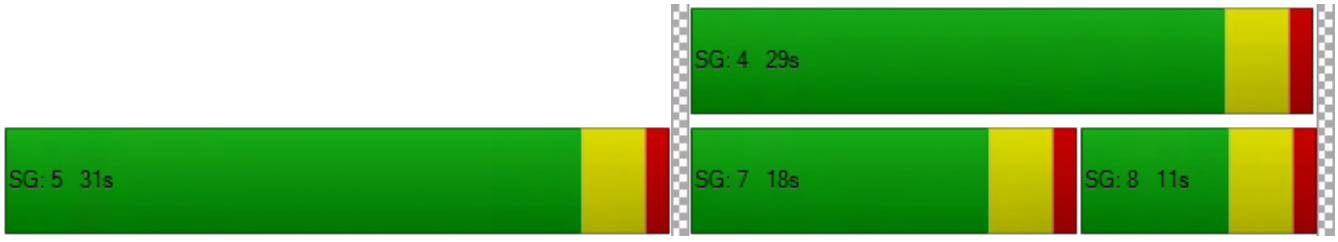
d_M, Delay for Movement [s/veh]	25.32	19.68	5.53	5.53	39.74	3.82
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	25.22		5.53		14.59	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.92					
Intersection LOS	C					
Intersection V/C	0.215					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.00	32.00	32.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.287

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	63	0	0	0	0	40
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	18	7	30	59	171
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	5	2	9	17	50
Total Analysis Volume [veh/h]	444	21	8	35	69	200
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	11	1	43	38	53
g / C, Green / Cycle	0.18	0.18	0.02	0.69	0.61	0.86
(v / s)_i Volume / Saturation Flow Rate	0.13	0.01	0.00	0.02	0.04	0.13
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	630	290	29	1289	1137	1359
d1, Uniform Delay [s]	23.85	21.06	30.19	3.06	4.95	0.75
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.46	0.10	4.84	0.04	0.10	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.07	0.27	0.03	0.06	0.15
d, Delay for Lane Group [s/veh]	25.30	21.17	35.03	3.10	5.06	0.80
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.99	0.25	0.15	0.10	0.31	0.02
50th-Percentile Queue Length [ft/ln]	74.70	6.19	3.82	2.55	7.70	0.47
95th-Percentile Queue Length [veh/ln]	5.38	0.45	0.28	0.18	0.55	0.03
95th-Percentile Queue Length [ft/ln]	134.46	11.14	6.88	4.59	13.85	0.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.30	21.17	35.03	3.10	5.06	0.80
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	25.12		9.04		1.89	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	16.19					
Intersection LOS	B					
Intersection V/C	0.287					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.98	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.274	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.00	31.00	31.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.203	4.576
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.374

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	13	0	0	4	40	63	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	472	10	159	809	187	188	12	212	23	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	132	3	45	226	52	53	3	59	6	1	3
Total Analysis Volume [veh/h]	22	529	11	178	906	209	211	13	237	26	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	12	21	0	12	21	0	11	21	21	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	31	31	8	36	36	7	7	15	3	3
g / C, Green / Cycle	0.06	0.48	0.48	0.12	0.55	0.55	0.11	0.11	0.22	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.10	0.10	0.25	0.13	0.06	0.01	0.15	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1851	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	103	1712	890	221	1948	870	368	201	360	76	74
d1, Uniform Delay [s]	29.35	9.77	9.77	27.84	8.98	7.71	27.75	26.19	22.96	30.35	30.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	0.27	0.53	6.83	0.80	0.65	1.41	0.13	2.06	2.63	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.21	0.21	0.81	0.47	0.24	0.57	0.06	0.66	0.34	0.22
d, Delay for Lane Group [s/veh]	30.38	10.04	10.30	34.66	9.78	8.36	29.16	26.32	25.02	32.98	31.60
Lane Group LOS	C	B	B	C	A	A	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.32	1.12	1.23	2.76	2.73	1.15	1.57	0.18	3.31	0.44	0.26
50th-Percentile Queue Length [ft/ln]	8.00	27.97	30.78	69.00	68.16	28.80	39.14	4.53	82.75	10.93	6.58
95th-Percentile Queue Length [veh/ln]	0.58	2.01	2.22	4.97	4.91	2.07	2.82	0.33	5.96	0.79	0.47
95th-Percentile Queue Length [ft/ln]	14.41	50.35	55.40	124.19	122.69	51.83	70.45	8.16	148.95	19.67	11.84

Movement, Approach, & Intersection Results

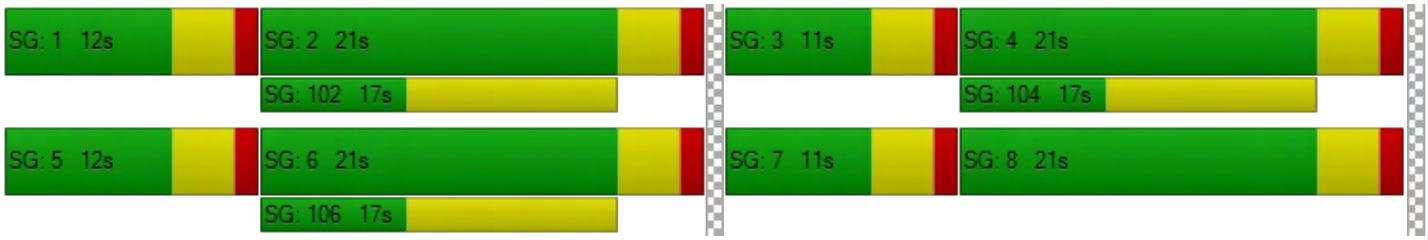
d_M, Delay for Movement [s/veh]	30.38	10.13	10.30	34.66	9.78	8.36	29.16	26.32	25.02	32.98	31.60	31.60
Movement LOS	C	B	B	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.92			12.98			26.95			32.46		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.57											
Intersection LOS	B											
Intersection V/C	0.374											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	22.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.098	2.548	2.002
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
l_b,int, Bicycle LOS Score for Intersection	1.869	2.626	2.320	1.629
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	4	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	463	1025	25	61	64
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	131	291	7	17	18
Total Analysis Volume [veh/h]	27	525	1162	28	69	73
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.29	0.16
d_M, Delay for Movement [s/veh]	11.48	0.00	0.00	0.00	28.94	21.78
Movement LOS	B	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	2.21	2.21
95th-Percentile Queue Length [ft/ln]	3.64	0.00	0.00	0.00	55.29	55.29
d_A, Approach Delay [s/veh]	0.56		0.00		25.26	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.07					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	1	3	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	370	10	207	911	36	50	62	40	27	69	155
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	106	3	59	261	10	14	18	11	8	20	44
Total Analysis Volume [veh/h]	33	424	11	237	1044	41	57	71	46	31	79	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	24	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	32	32	43	36	36	19	12	12	19	10	10
g / C, Green / Cycle	0.62	0.46	0.46	0.62	0.51	0.51	0.27	0.17	0.17	0.27	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.12	0.12	0.21	0.29	0.29	0.04	0.04	0.03	0.02	0.04	0.11
s, saturation flow rate [veh/h]	678	1870	1853	1125	1870	1845	1484	1870	1589	1454	1870	1589
c, Capacity [veh/h]	460	859	851	774	954	941	508	312	265	506	271	231
d1, Uniform Delay [s]	6.96	11.61	11.61	6.24	11.88	11.89	19.34	25.31	25.07	19.04	26.76	28.86
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.71	0.72	0.22	2.49	2.53	0.10	0.37	0.31	0.05	0.59	5.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.25	0.25	0.31	0.57	0.57	0.11	0.23	0.17	0.06	0.29	0.77
d, Delay for Lane Group [s/veh]	7.27	12.32	12.34	6.46	14.37	14.42	19.44	25.68	25.38	19.09	27.35	34.29
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.17	1.88	1.87	1.11	5.24	5.19	0.69	1.03	0.67	0.34	1.10	2.92
50th-Percentile Queue Length [ft/ln]	4.24	47.11	46.86	27.83	130.94	129.76	17.36	25.83	16.63	8.40	27.62	73.11
95th-Percentile Queue Length [veh/ln]	0.31	3.39	3.37	2.00	8.99	8.93	1.25	1.86	1.20	0.60	1.99	5.26
95th-Percentile Queue Length [ft/ln]	7.63	84.81	84.35	50.09	224.77	223.16	31.26	46.49	29.94	15.12	49.71	131.59

Movement, Approach, & Intersection Results

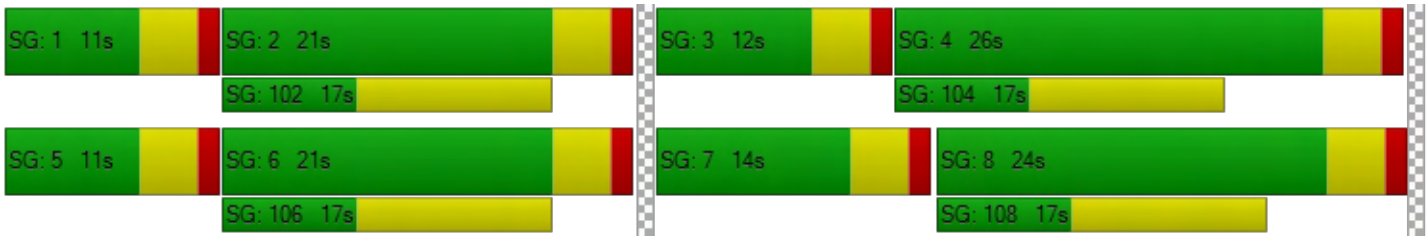
d_M, Delay for Movement [s/veh]	7.27	12.33	12.34	6.46	14.39	14.42	19.44	25.68	25.38	19.09	27.35	34.29
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	11.97			12.97			23.55			30.75		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.85											
Intersection LOS	B											
Intersection V/C	0.569											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.759	2.880	2.209	2.529
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	629
d_b, Bicycle Delay [s]	20.06	20.06	17.86	16.46
l_b,int, Bicycle LOS Score for Intersection	1.946	2.650	1.847	2.035
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	1	2	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	291	19	135	797	46	22	230	28	35	145	76
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	79	5	37	218	13	6	63	8	10	40	21
Total Analysis Volume [veh/h]	48	318	21	147	870	50	24	251	31	38	158	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	31	31	41	33	33	15	7	7	15	8	8
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.23	0.11	0.11	0.23	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.09	0.12	0.25	0.25	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	783	1870	1830	1196	1870	1834	1335	1870	1799	1352	1870	1662
c, Capacity [veh/h]	564	891	872	874	962	944	408	216	207	405	245	218
d1, Uniform Delay [s]	5.30	9.69	9.69	4.62	10.08	10.08	19.26	27.23	27.27	19.45	25.99	26.10
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.48	0.49	0.09	1.73	1.77	0.06	3.43	3.75	0.10	1.61	2.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.19	0.19	0.17	0.48	0.48	0.06	0.66	0.67	0.09	0.51	0.54
d, Delay for Lane Group [s/veh]	5.60	10.16	10.19	4.71	11.82	11.85	19.32	30.66	31.02	19.55	27.61	28.15
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	1.19	1.18	0.47	3.58	3.52	0.25	2.09	2.06	0.40	1.70	1.62
50th-Percentile Queue Length [ft/ln]	4.60	29.82	29.50	11.72	89.46	88.00	6.32	52.21	51.59	10.10	42.39	40.60
95th-Percentile Queue Length [veh/ln]	0.33	2.15	2.12	0.84	6.44	6.34	0.46	3.76	3.71	0.73	3.05	2.92
95th-Percentile Queue Length [ft/ln]	8.28	53.67	53.10	21.09	161.03	158.40	11.38	93.99	92.87	18.18	76.31	73.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.60	10.17	10.19	4.71	11.83	11.85	19.32	30.82	31.02	19.55	27.72	28.15
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	9.61			10.85			29.94			26.74		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.65											
Intersection LOS	B											
Intersection V/C	0.475											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.723	0.000	2.592
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.879	2.440	1.812	1.790
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	48.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.055

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	3	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	238	1	306	130	110	0	0	232	135
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	90	38	32	0	0	68	40
Total Analysis Volume [veh/h]	0	1	0	279	1	359	152	129	0	0	272	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	459	639	456	487	513	532
Degree of Utilization, x	0.00	1.05	0.33	0.26	0.00	0.81

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	17.70	1.44	1.06	0.00	7.84
95th-Percentile Queue Length [ft]	0.16	442.48	36.12	26.41	0.00	195.94
Approach Delay [s/veh]	10.87	75.85	13.69		32.09	
Approach LOS	B	F	B		D	
Intersection Delay [s/veh]	48.94					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	178	44	0	68	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	545	44	0	990	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	12	0	261	0	0
Total Analysis Volume [veh/h]	574	46	0	1042	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.17
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.15
d_A, Approach Delay [s/veh]	0.00		0.00		12.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	222	0	0	68	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	589	0	0	990	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	155	0	0	261	0	0
Total Analysis Volume [veh/h]	620	0	0	1042	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.75	0.00	0.00	12.38
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		12.38	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

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10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.635	15.3	C
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.889	26.3	D
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.053	15.0	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.020	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	1.529	334.2	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.136	59.1	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Right	0.445	16.6	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.235	23.8	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.303	14.5	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.432	14.4	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.044	14.3	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.549	17.3	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.434	16.2	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.646	16.1	C
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.012	16.2	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	16.5	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.635

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	8	0	2	0	0	0	0	5	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	309	120	34	154	16	22	103	15	89	79	62
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	81	31	9	40	4	6	27	4	23	21	16
Total Analysis Volume [veh/h]	40	322	125	35	161	17	23	107	16	93	82	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	570	648	539	501	564	532
Degree of Utilization, x	0.64	0.19	0.40	0.26	0.03	0.45

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.46	0.71	1.88	1.03	0.09	2.32
95th-Percentile Queue Length [ft]	111.41	17.72	46.89	25.75	2.19	58.08
Approach Delay [s/veh]	16.84		13.99	12.06		15.24
Approach LOS	C		B	B		C
Intersection Delay [s/veh]	15.28					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	26.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.889

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	13	13	0	7	0	0	0	7	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	429	330	28	227	0	5	85	22	193	93	34
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	110	85	7	58	0	1	22	6	50	24	9
Total Analysis Volume [veh/h]	25	441	340	29	234	0	5	87	23	199	96	35
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	524	587	477	481	430	473	449	517
Degree of Utilization, x	0.89	0.58	0.55	0.00	0.21	0.05	0.66	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	10.07	3.69	3.28	0.00	0.80	0.15	4.64	0.22
95th-Percentile Queue Length [ft]	251.83	92.23	82.11	0.00	20.02	3.83	115.94	5.42
Approach Delay [s/veh]	31.80		19.14		12.80		23.27	
Approach LOS	D		C		B		C	
Intersection Delay [s/veh]	26.30							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.053

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	5	10	12	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	772	5	10	452	0	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	203	1	3	119	0	5
Total Analysis Volume [veh/h]	813	5	11	476	0	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	9.50	0.00	0.00	15.04
Movement LOS	A	A	A	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.17
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.03	0.00	0.00	4.17
d_A, Approach Delay [s/veh]	0.00		0.21		15.04	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.31					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	15	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	4	0	0
Total Analysis Volume [veh/h]	20	0	0	16	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.63	8.42	0.00	0.00	7.25	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.51	1.51	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.79					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	334.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.529

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	95	12	0	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	762	95	12	440	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	201	25	3	116	63	4
Total Analysis Volume [veh/h]	802	100	13	463	251	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.00	1.53	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	9.86	0.00	334.17	322.25
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	17.80	17.80
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.21	1.21	444.93	444.93
d_A, Approach Delay [s/veh]	0.00		0.27		333.46	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	54.20					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	59.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.136

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	153	0	0	238	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	896	4	0	675	3	9	0	14	3	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	237	1	0	178	1	2	0	4	1	0	0
Total Analysis Volume [veh/h]	11	947	4	0	714	3	10	0	15	3	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.01	0.00	0.14	0.00	0.03	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	9.12	0.00	0.00	9.98	0.00	0.00	59.11	49.00	18.39	57.59	45.88	18.33
Movement LOS	A	A	A	A	A	A	F	E	C	F	E	C
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.14	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.94	0.00	0.00	0.00	0.00	0.00	14.91	14.91	14.91	3.52	3.52	3.52
d_A, Approach Delay [s/veh]	0.10			0.00			34.68			47.78		
Approach LOS	A			A			D			E		
d_I, Intersection Delay [s/veh]	0.68											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	59	0	0	238	0	0	0	0	0	0	94
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	680	3	0	681	20	23	1	84	220	38	313
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	181	1	0	182	5	6	0	22	59	10	84
Total Analysis Volume [veh/h]	48	726	3	0	727	21	25	1	90	235	41	334
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	11	0	21	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	35	35	0	31	31	3	6	6	7	10	10
g / C, Green / Cycle	0.06	0.55	0.55	0.00	0.49	0.49	0.04	0.09	0.09	0.11	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.03	0.20	0.00	0.00	0.14	0.14	0.01	0.00	0.06	0.07	0.12	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1843	1781	1870	1589	3459	1643	1589
c, Capacity [veh/h]	116	1959	875	3	1733	897	74	168	143	377	259	250
d1, Uniform Delay [s]	28.86	8.17	6.52	0.00	9.82	9.83	29.94	26.63	28.21	27.37	25.81	25.82
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	0.54	0.01	0.00	0.41	0.80	2.64	0.01	4.49	1.69	4.06	4.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.37	0.00	0.00	0.28	0.28	0.34	0.01	0.63	0.62	0.74	0.74
d, Delay for Lane Group [s/veh]	31.20	8.71	6.52	0.00	10.23	10.63	32.58	26.64	32.71	29.06	29.87	30.04
Lane Group LOS	C	A	A	A	B	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.70	1.95	0.01	0.00	1.55	1.71	0.41	0.01	1.45	1.73	2.91	2.83
50th-Percentile Queue Length [ft/ln]	17.49	48.76	0.34	0.00	38.76	42.69	10.37	0.35	36.30	43.18	72.66	70.72
95th-Percentile Queue Length [veh/ln]	1.26	3.51	0.02	0.00	2.79	3.07	0.75	0.03	2.61	3.11	5.23	5.09
95th-Percentile Queue Length [ft/ln]	31.48	87.78	0.61	0.00	69.77	76.84	18.66	0.63	65.34	77.73	130.78	127.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.20	8.71	6.52	0.00	10.36	10.63	32.58	26.64	32.71	29.06	29.87	29.97
Movement LOS	C	A	A	A	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.09			10.37			32.63			29.61		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.63											
Intersection LOS	B											
Intersection V/C	0.445											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.980	2.167	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	219	531
d_b, Bicycle Delay [s]	17.26	17.26	25.38	17.26
l_b,int, Bicycle LOS Score for Intersection	2.201	1.971	1.751	2.566
Bicycle LOS	B	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.235

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	94	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	595	4	2	1	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	161	1	1	0	1	2
Total Analysis Volume [veh/h]	643	4	2	1	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	63
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	63	63	63	63	63
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	35	1	40
g / C, Green / Cycle	0.24	0.24	0.56	0.01	0.64
(v / s)_i Volume / Saturation Flow Rate	0.19	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1766	1781	3560
c, Capacity [veh/h]	824	379	990	20	2261
d1, Uniform Delay [s]	22.51	18.37	6.11	30.96	4.22
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.65	0.01	0.01	6.33	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.01	0.00	0.25	0.00
d, Delay for Lane Group [s/veh]	24.16	18.38	6.11	37.29	4.22
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.33	0.04	0.02	0.11	0.02
50th-Percentile Queue Length [ft/ln]	108.16	1.08	0.40	2.69	0.47
95th-Percentile Queue Length [veh/ln]	7.74	0.08	0.03	0.19	0.03
95th-Percentile Queue Length [ft/ln]	193.43	1.94	0.72	4.85	0.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.16	18.38	6.11	6.11	37.29	4.22
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	24.12		6.11		15.24	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	23.84					
Intersection LOS	C					
Intersection V/C	0.235					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.50	31.50	31.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.137	4.145
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.303

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	0	0	156
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	255	11	10	68	56	253
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	3	3	20	17	75
Total Analysis Volume [veh/h]	304	13	12	81	67	302
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	74
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	28	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	74	74	74	74	74	74
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	10	10	2	56	51	64
g / C, Green / Cycle	0.13	0.13	0.02	0.76	0.68	0.87
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.01	0.04	0.04	0.19
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	463	213	40	1418	1275	1382
d1, Uniform Delay [s]	30.47	28.02	35.66	2.27	3.89	0.78
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.59	0.12	4.17	0.08	0.08	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.06	0.30	0.06	0.05	0.22
d, Delay for Lane Group [s/veh]	32.06	28.14	39.83	2.34	3.97	0.86
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.59	0.20	0.25	0.21	0.28	0.03
50th-Percentile Queue Length [ft/ln]	64.80	5.07	6.36	5.17	7.01	0.75
95th-Percentile Queue Length [veh/ln]	4.67	0.37	0.46	0.37	0.50	0.05
95th-Percentile Queue Length [ft/ln]	116.65	9.13	11.45	9.30	12.62	1.36

Movement, Approach, & Intersection Results

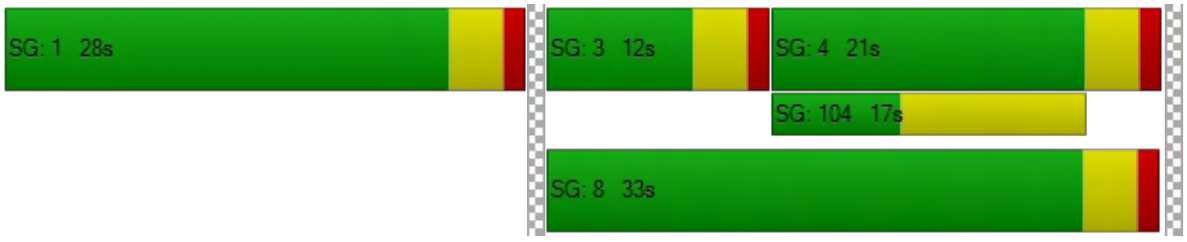
d_M, Delay for Movement [s/veh]	32.06	28.14	39.83	2.34	3.97	0.86
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	31.90		7.18		1.42	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	14.51					
Intersection LOS	B					
Intersection V/C	0.303					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.82	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.274	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.00	37.00	37.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.286	4.741
Bicycle LOS	D	E	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.432

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	0	18	156	47	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	874	16	148	401	268	207	17	98	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	224	4	38	103	69	53	4	25	2	2	3
Total Analysis Volume [veh/h]	48	895	16	151	410	274	212	17	100	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	20	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	7	35	35	7	8	16	1	2
g / C, Green / Cycle	0.06	0.51	0.51	0.11	0.55	0.55	0.11	0.12	0.25	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.17	0.08	0.12	0.17	0.06	0.01	0.06	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1853	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	116	1794	934	193	1948	870	374	225	394	33	52
d1, Uniform Delay [s]	28.86	9.51	9.51	27.92	7.45	7.97	27.24	25.09	19.40	31.13	30.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	0.50	0.96	6.76	0.25	0.95	1.36	0.14	0.34	4.48	3.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.33	0.33	0.78	0.21	0.32	0.57	0.08	0.25	0.28	0.33
d, Delay for Lane Group [s/veh]	31.20	10.01	10.48	34.67	7.70	8.91	28.60	25.23	19.74	35.62	34.17
Lane Group LOS	C	B	B	C	A	A	C	C	B	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.70	1.85	2.04	2.32	1.00	1.56	1.54	0.23	1.16	0.17	0.30
50th-Percentile Queue Length [ft/ln]	17.49	46.17	51.12	58.07	24.89	38.92	38.51	5.71	29.05	4.32	7.50
95th-Percentile Queue Length [veh/ln]	1.26	3.32	3.68	4.18	1.79	2.80	2.77	0.41	2.09	0.31	0.54
95th-Percentile Queue Length [ft/ln]	31.48	83.10	92.01	104.52	44.79	70.05	69.32	10.28	52.28	7.78	13.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.20	10.17	10.48	34.67	7.70	8.91	28.60	25.23	19.74	35.62	34.17	34.17
Movement LOS	C	B	B	C	A	A	C	C	B	D	C	C
d_A, Approach Delay [s/veh]	11.22			12.97			25.73			34.67		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.41											
Intersection LOS	B											
Intersection V/C	0.432											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.074	2.541	1.990
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.087	2.248	2.102	1.603
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.044

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	15	3	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	809	506	28	17	27
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	212	133	7	4	7
Total Analysis Volume [veh/h]	46	848	530	29	18	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.04	0.04
d_M, Delay for Movement [s/veh]	8.74	0.00	0.00	0.00	14.28	10.48
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.27	0.27
95th-Percentile Queue Length [ft/ln]	3.58	0.00	0.00	0.00	6.65	6.65
d_A, Approach Delay [s/veh]	0.45		0.00		11.97	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.64					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	0	4	11	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	650	26	110	431	51	69	58	24	23	79	211
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	176	7	30	116	14	19	16	6	6	21	57
Total Analysis Volume [veh/h]	49	703	28	119	466	55	75	63	26	25	85	228
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	35	25	25	35	27	27	21	14	14	21	11	11
g / C, Green / Cycle	0.55	0.39	0.39	0.55	0.43	0.43	0.32	0.22	0.22	0.32	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.20	0.20	0.12	0.14	0.14	0.05	0.03	0.02	0.02	0.05	0.14
s, saturation flow rate [veh/h]	1039	1870	1845	972	1870	1802	1477	1870	1589	1438	1870	1589
c, Capacity [veh/h]	653	733	723	592	793	764	595	411	349	597	334	284
d1, Uniform Delay [s]	6.97	14.80	14.80	7.83	12.43	12.44	15.41	20.26	19.90	14.94	22.73	25.33
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	2.45	2.48	0.17	1.14	1.19	0.09	0.17	0.09	0.03	0.40	5.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.50	0.50	0.20	0.33	0.34	0.13	0.15	0.07	0.04	0.25	0.80
d, Delay for Lane Group [s/veh]	7.20	17.24	17.28	8.00	13.57	13.63	15.50	20.43	19.99	14.97	23.12	30.62
Lane Group LOS	A	B	B	A	B	B	B	C	B	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	3.81	3.77	0.59	2.30	2.24	0.75	0.75	0.31	0.21	1.00	3.31
50th-Percentile Queue Length [ft/ln]	6.55	95.30	94.25	14.69	57.61	56.03	18.83	18.84	7.66	5.37	25.09	82.67
95th-Percentile Queue Length [veh/ln]	0.47	6.86	6.79	1.06	4.15	4.03	1.36	1.36	0.55	0.39	1.81	5.95
95th-Percentile Queue Length [ft/ln]	11.79	171.54	169.65	26.43	103.70	100.85	33.90	33.90	13.78	9.67	45.16	148.81

Movement, Approach, & Intersection Results

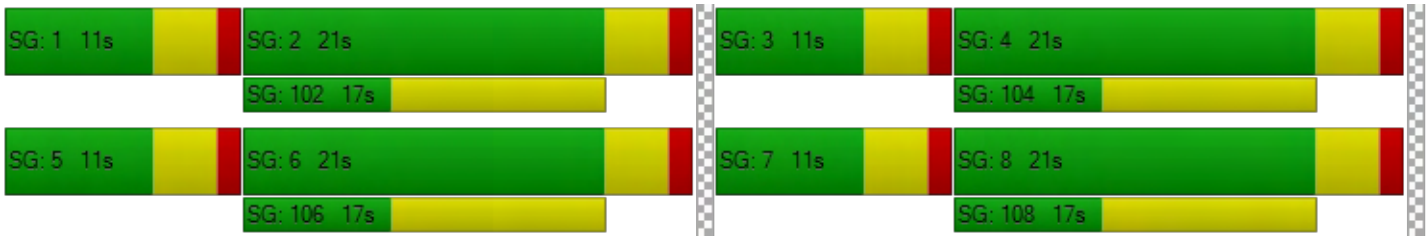
d_M, Delay for Movement [s/veh]	7.20	17.26	17.28	8.00	13.59	13.63	15.50	20.43	19.99	14.97	23.12	30.62
Movement LOS	A	B	B	A	B	B	B	C	B	B	C	C
d_A, Approach Delay [s/veh]	16.63			12.55			18.11			27.58		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	17.32											
Intersection LOS	B											
Intersection V/C	0.549											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.669	2.785	2.216	2.407
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	2.203	2.088	1.830	2.117
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.434

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	4	7	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	611	18	93	374	20	40	136	20	15	231	105
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	160	5	24	98	5	10	36	5	4	61	28
Total Analysis Volume [veh/h]	58	640	19	97	392	21	42	143	21	16	242	110
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	21	0	11	18	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	30	30	39	31	31	17	11	11	17	9	9
g / C, Green / Cycle	0.61	0.46	0.46	0.61	0.48	0.48	0.26	0.17	0.17	0.26	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.18	0.18	0.10	0.11	0.11	0.03	0.04	0.05	0.01	0.10	0.10
s, saturation flow rate [veh/h]	1110	1870	1851	977	1870	1837	1290	1870	1788	1350	1870	1678
c, Capacity [veh/h]	777	858	849	669	894	878	408	320	306	477	262	236
d1, Uniform Delay [s]	5.16	11.44	11.44	5.67	9.85	9.86	18.20	23.11	23.14	17.68	26.31	26.43
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	1.31	1.33	0.10	0.61	0.62	0.11	0.42	0.46	0.03	3.27	4.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.39	0.39	0.14	0.23	0.23	0.10	0.26	0.27	0.03	0.69	0.72
d, Delay for Lane Group [s/veh]	5.34	12.75	12.76	5.76	10.46	10.48	18.31	23.53	23.60	17.71	29.58	30.58
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	2.74	2.72	0.36	1.48	1.47	0.43	1.01	0.99	0.16	2.61	2.50
50th-Percentile Queue Length [ft/ln]	5.96	68.52	67.97	8.93	37.08	36.66	10.64	25.21	24.86	3.97	65.24	62.43
95th-Percentile Queue Length [veh/ln]	0.43	4.93	4.89	0.64	2.67	2.64	0.77	1.82	1.79	0.29	4.70	4.50
95th-Percentile Queue Length [ft/ln]	10.73	123.34	122.35	16.08	66.74	65.98	19.15	45.38	44.76	7.15	117.43	112.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.34	12.76	12.76	5.76	10.47	10.48	18.31	23.56	23.60	17.71	29.83	30.58
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	12.16			9.58			22.50			29.52		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	16.16											
Intersection LOS	B											
Intersection V/C	0.434											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.672	0.000	2.532
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	438	500	531
d_b, Bicycle Delay [s]	17.26	19.53	18.00	17.26
I_b,int, Bicycle LOS Score for Intersection	2.151	1.980	1.730	1.863
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.646

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	13	0	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	3	128	1	145	231	254	0	1	200	151
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	35	0	40	63	70	0	0	55	41
Total Analysis Volume [veh/h]	0	1	3	141	1	159	254	279	0	1	220	166
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	536	599	542	588	527	598
Degree of Utilization, x	0.01	0.50	0.47	0.47	0.00	0.65

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	2.82	2.47	2.54	0.01	4.65
95th-Percentile Queue Length [ft]	0.56	70.45	61.78	63.59	0.14	116.31
Approach Delay [s/veh]	9.77	14.93	14.62		19.01	
Approach LOS	A	B	B		C	
Intersection Delay [s/veh]	16.07					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	100	53	0	238	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	853	53	0	678	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	224	14	0	178	0	1
Total Analysis Volume [veh/h]	898	56	0	714	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	16.19
Movement LOS	A	A		A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.93
d_A, Approach Delay [s/veh]	0.00		0.00		16.19	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	153	0	0	238	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	906	0	0	678	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	238	0	0	178	0	0
Total Analysis Volume [veh/h]	954	0	0	714	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	10.00	0.00	0.00	16.47
Movement LOS	A	A	A	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		16.47	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	C					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

Report File: G:\...\SAT EP.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.378	11.8	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	0.584	14.8	B
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.019	10.8	B
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.012	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.642	38.2	E
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.068	28.6	D
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.276	14.6	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.137	25.6	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.250	16.3	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.302	15.0	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.038	11.8	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.307	14.0	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.287	15.8	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.409	11.1	B
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.007	11.7	B
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	11.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.378

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	5	0	2	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	162	52	26	151	26	12	80	24	59	104	35
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	45	15	7	42	7	3	22	7	16	29	10
Total Analysis Volume [veh/h]	19	181	58	29	169	29	13	89	27	66	116	39
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	598	684	601	563	641	588
Degree of Utilization, x	0.33	0.08	0.38	0.18	0.04	0.38

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.46	0.28	1.76	0.66	0.13	1.74
95th-Percentile Queue Length [ft]	36.60	6.93	43.91	16.40	3.29	43.54
Approach Delay [s/veh]	10.98		12.59	10.09		12.77
Approach LOS	B		B	B		B
Intersection Delay [s/veh]	11.75					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	8	9	0	6	0	0	0	6	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	219	177	21	222	3	4	58	27	200	84	19
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	58	47	6	59	1	1	15	7	53	22	5
Total Analysis Volume [veh/h]	17	232	187	22	235	3	4	61	29	211	89	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	557	629	544	612	497	555	514	605
Degree of Utilization, x	0.45	0.30	0.47	0.00	0.13	0.05	0.58	0.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.29	1.24	2.51	0.01	0.45	0.17	3.70	0.10
95th-Percentile Queue Length [ft]	57.28	31.04	62.87	0.37	11.18	4.13	92.55	2.56
Approach Delay [s/veh]	12.81		15.05		10.57		18.45	
Approach LOS	B		C		B		C	
Intersection Delay [s/veh]	14.77							
Intersection LOS	B							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	5	8	11	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	402	5	8	442	0	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	106	1	2	116	0	3
Total Analysis Volume [veh/h]	423	5	8	465	0	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.20	0.00	0.00	10.82
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.00	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.53	0.00	0.00	1.45
d_A, Approach Delay [s/veh]	0.00		0.14		10.82	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.21					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	0	13	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	0	3	0	0
Total Analysis Volume [veh/h]	12	0	0	14	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	38.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	83	11	0	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	397	83	11	431	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	22	3	113	46	3
Total Analysis Volume [veh/h]	418	87	12	454	185	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.64	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.44	0.00	38.19	31.71
Movement LOS	A	A	A	A	E	D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.03	4.33	4.33
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.79	0.79	108.33	108.33
d_A, Approach Delay [s/veh]	0.00		0.22		37.83	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.44					
Intersection LOS	E					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.068

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	156	0	0	176	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	515	18	1	599	5	11	0	10	1	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	131	5	0	153	1	3	0	3	0	0	1
Total Analysis Volume [veh/h]	18	525	18	1	611	5	11	0	10	1	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.07	0.00	0.02	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	8.81	0.00	0.00	8.51	0.00	0.00	28.64	26.16	13.77	27.64	24.65	11.71
Movement LOS	A	A	A	A	A	A	D	D	B	D	C	B
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.00	0.00	0.29	0.29	0.29	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	1.43	0.00	0.00	0.07	0.07	0.07	7.17	7.17	7.17	0.75	0.75	0.75
d_A, Approach Delay [s/veh]	0.28			0.01			21.56			17.02		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.56											
Intersection LOS	D											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.276

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	64	0	0	176	0	0	0	0	0	0	92
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	340	9	6	575	11	21	4	51	137	19	193
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	91	2	2	154	3	6	1	14	37	5	52
Total Analysis Volume [veh/h]	17	365	10	6	617	12	23	4	55	147	20	207
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	18	0	14	21	0	11	18	0	14	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	38	38	1	37	37	2	5	5	7	9	9
g / C, Green / Cycle	0.03	0.58	0.58	0.01	0.56	0.56	0.04	0.07	0.07	0.10	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.01	0.00	0.12	0.12	0.01	0.00	0.03	0.04	0.07	0.07
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1852	1781	1870	1589	3459	1632	1589
c, Capacity [veh/h]	55	2041	911	23	1978	1029	69	135	115	347	218	212
d1, Uniform Delay [s]	31.44	6.73	6.08	32.39	7.41	7.41	31.02	28.59	29.55	28.01	26.76	26.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.20	0.19	0.02	5.75	0.24	0.46	2.78	0.09	3.09	0.82	1.97	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.18	0.01	0.26	0.21	0.21	0.33	0.03	0.48	0.42	0.53	0.53
d, Delay for Lane Group [s/veh]	34.63	6.92	6.10	38.14	7.65	7.87	33.80	28.68	32.65	28.83	28.72	28.78
Lane Group LOS	C	A	A	D	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.29	0.82	0.04	0.12	1.03	1.13	0.40	0.06	0.91	1.09	1.73	1.69
50th-Percentile Queue Length [ft/ln]	7.14	20.60	1.09	3.05	25.65	28.36	9.95	1.50	22.66	27.20	43.29	42.30
95th-Percentile Queue Length [veh/ln]	0.51	1.48	0.08	0.22	1.85	2.04	0.72	0.11	1.63	1.96	3.12	3.05
95th-Percentile Queue Length [ft/ln]	12.84	37.07	1.96	5.49	46.17	51.05	17.92	2.71	40.78	48.95	77.92	76.14

Movement, Approach, & Intersection Results

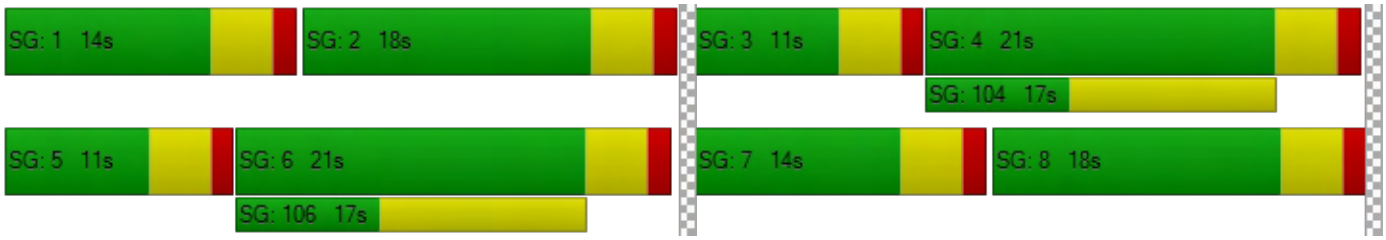
d_M, Delay for Movement [s/veh]	34.63	6.92	6.10	38.14	7.72	7.87	33.80	28.68	32.65	28.83	28.72	28.76
Movement LOS	C	A	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.10			8.01			32.78			28.78		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	14.64											
Intersection LOS	B											
Intersection V/C	0.276											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.92	22.92	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.802	2.146	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	424	515	424	515
d_b, Bicycle Delay [s]	20.48	18.19	20.48	18.19
l_b,int, Bicycle LOS Score for Intersection	1.883	1.909	1.695	2.177
Bicycle LOS	A	A	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.137

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	92	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	351	2	5	1	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	1	1	0	0	3
Total Analysis Volume [veh/h]	371	2	5	1	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	41	0	45
g / C, Green / Cycle	0.15	0.15	0.65	0.00	0.72
(v / s)_i Volume / Saturation Flow Rate	0.11	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1817	1781	3560
c, Capacity [veh/h]	529	243	1185	3	2558
d1, Uniform Delay [s]	24.99	22.33	3.77	0.00	2.47
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.71	0.01	0.01	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.01	0.01	0.00	0.00
d, Delay for Lane Group [s/veh]	26.70	22.35	3.78	0.00	2.47
Lane Group LOS	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.56	0.02	0.02	0.00	0.01
50th-Percentile Queue Length [ft/ln]	64.11	0.61	0.53	0.00	0.30
95th-Percentile Queue Length [veh/ln]	4.62	0.04	0.04	0.00	0.02
95th-Percentile Queue Length [ft/ln]	115.40	1.10	0.95	0.00	0.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.70	22.35	3.78	3.78	0.00	2.47
Movement LOS	C	C	A	A	A	A
d_A, Approach Delay [s/veh]	26.67		3.78		2.47	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	25.64					
Intersection LOS	C					
Intersection V/C	0.137					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.00	31.00	31.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.142	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.250

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	52	0	0	0	0	113
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	252	8	12	31	33	200
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	2	3	9	9	56
Total Analysis Volume [veh/h]	282	9	13	35	37	223
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	28	0	13	34	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	9	9	2	53	48	60
g / C, Green / Cycle	0.13	0.13	0.02	0.76	0.68	0.86
(v / s)_i Volume / Saturation Flow Rate	0.08	0.01	0.01	0.02	0.02	0.14
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	438	201	43	1420	1268	1370
d1, Uniform Delay [s]	29.11	26.89	33.64	2.07	3.71	0.78
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.59	0.09	3.88	0.03	0.04	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.04	0.30	0.02	0.03	0.16
d, Delay for Lane Group [s/veh]	30.70	26.98	37.52	2.10	3.75	0.83
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.26	0.13	0.26	0.08	0.14	0.02
50th-Percentile Queue Length [ft/ln]	56.62	3.32	6.44	1.91	3.54	0.53
95th-Percentile Queue Length [veh/ln]	4.08	0.24	0.46	0.14	0.26	0.04
95th-Percentile Queue Length [ft/ln]	101.91	5.98	11.59	3.45	6.38	0.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.70	26.98	37.52	2.10	3.75	0.83
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	30.59		11.69		1.25	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.34					
Intersection LOS	B					
Intersection V/C	0.250					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.246	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	35.00	35.00	35.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.212	4.561
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.302

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	0	13	113	52	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	360	20	115	323	198	180	11	93	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	96	5	31	86	53	48	3	25	2	2	3
Total Analysis Volume [veh/h]	47	385	21	123	345	212	192	12	99	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	20	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	6	35	35	7	8	16	1	2
g / C, Green / Cycle	0.06	0.51	0.51	0.10	0.55	0.55	0.11	0.13	0.25	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.08	0.08	0.07	0.10	0.13	0.06	0.01	0.06	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1821	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	115	1822	932	176	1944	868	370	238	404	23	56
d1, Uniform Delay [s]	28.90	8.29	8.30	28.03	7.33	7.64	27.14	24.63	19.07	31.41	30.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	0.17	0.34	4.93	0.20	0.67	1.13	0.09	0.31	5.66	3.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.15	0.15	0.70	0.18	0.24	0.52	0.05	0.25	0.26	0.34
d, Delay for Lane Group [s/veh]	31.23	8.46	8.63	32.97	7.53	8.31	28.26	24.71	19.38	37.07	33.88
Lane Group LOS	C	A	A	C	A	A	C	C	B	D	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.69	0.71	0.78	1.83	0.82	1.15	1.38	0.16	1.14	0.13	0.33
50th-Percentile Queue Length [ft/ln]	17.15	17.87	19.60	45.84	20.57	28.66	34.57	3.97	28.42	3.13	8.27
95th-Percentile Queue Length [veh/ln]	1.23	1.29	1.41	3.30	1.48	2.06	2.49	0.29	2.05	0.23	0.60
95th-Percentile Queue Length [ft/ln]	30.87	32.17	35.28	82.50	37.03	51.58	62.23	7.15	51.15	5.64	14.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.23	8.51	8.63	32.97	7.53	8.31	28.26	24.71	19.38	37.07	33.88	33.88
Movement LOS	C	A	A	C	A	A	C	C	B	D	C	C
d_A, Approach Delay [s/veh]	10.88			12.38			25.22			34.65		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	14.96											
Intersection LOS	B											
Intersection V/C	0.302											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.899	2.526	1.980
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	1.809	2.121	2.060	1.601
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	11	2	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	395	412	14	21	16
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	101	105	4	5	4
Total Analysis Volume [veh/h]	16	403	420	14	21	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.04	0.02
d_M, Delay for Movement [s/veh]	8.25	0.00	0.00	0.00	11.83	9.87
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.18	0.18
95th-Percentile Queue Length [ft/ln]	1.08	0.00	0.00	0.00	4.60	4.60
d_A, Approach Delay [s/veh]	0.32		0.00		10.98	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.61					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.307

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	0	3	8	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	328	17	112	348	55	49	64	33	24	74	116
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	85	4	29	91	14	13	17	9	6	19	30
Total Analysis Volume [veh/h]	36	341	18	117	362	57	51	67	34	25	77	121
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	31	31	41	33	33	15	9	9	15	7	7
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.24	0.13	0.13	0.24	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.10	0.10	0.11	0.12	0.03	0.04	0.02	0.02	0.04	0.08
s, saturation flow rate [veh/h]	1077	1870	1837	1176	1870	1783	1511	1870	1589	1470	1870	1589
c, Capacity [veh/h]	784	891	875	851	972	926	484	254	216	482	205	174
d1, Uniform Delay [s]	4.51	9.76	9.76	4.70	8.37	8.38	19.18	24.91	24.54	18.88	26.57	27.58
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.51	0.53	0.07	0.52	0.55	0.09	0.55	0.34	0.04	1.14	4.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.20	0.20	0.14	0.22	0.22	0.11	0.26	0.16	0.05	0.38	0.69
d, Delay for Lane Group [s/veh]	4.62	10.27	10.29	4.77	8.89	8.94	19.27	25.46	24.88	18.92	27.71	32.47
Lane Group LOS	A	B	B	A	A	A	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.13	1.27	1.26	0.38	1.33	1.29	0.59	0.93	0.46	0.25	1.04	1.82
50th-Percentile Queue Length [ft/ln]	3.26	31.77	31.49	9.48	33.33	32.28	14.66	23.13	11.59	6.35	25.88	45.49
95th-Percentile Queue Length [veh/ln]	0.23	2.29	2.27	0.68	2.40	2.32	1.06	1.67	0.83	0.46	1.86	3.28
95th-Percentile Queue Length [ft/ln]	5.86	57.19	56.68	17.07	59.99	58.11	26.38	41.64	20.86	11.44	46.59	81.89

Movement, Approach, & Intersection Results

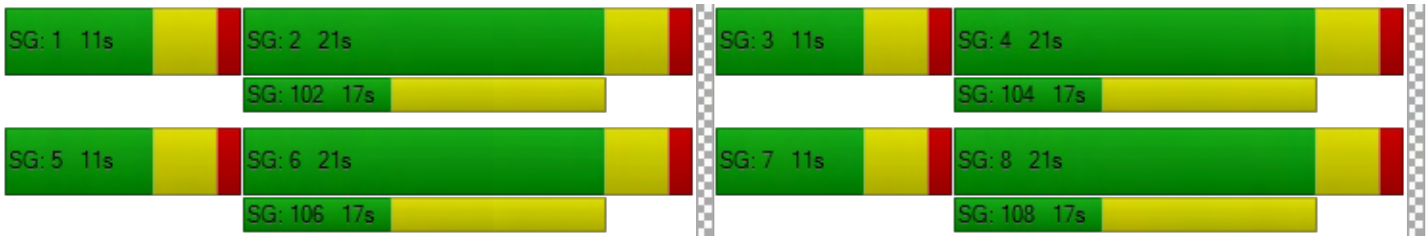
d_M, Delay for Movement [s/veh]	4.62	10.28	10.29	4.77	8.91	8.94	19.27	25.46	24.88	18.92	27.71	32.47
Movement LOS	A	B	B	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	9.76			8.01			23.25			29.31		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	13.95											
Intersection LOS	B											
Intersection V/C	0.307											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.526	2.598	2.206	2.370
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.885	2.002	1.810	1.928
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.287

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	0	3	5	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	301	27	74	336	34	29	137	40	33	172	73
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	80	7	20	89	9	8	36	11	9	46	19
Total Analysis Volume [veh/h]	70	320	29	79	357	36	31	146	43	35	183	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	42	33	33	42	33	33	14	7	7	14	7	7
g / C, Green / Cycle	0.65	0.51	0.51	0.65	0.51	0.51	0.22	0.11	0.11	0.22	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.10	0.07	0.11	0.11	0.02	0.05	0.05	0.02	0.07	0.08
s, saturation flow rate [veh/h]	1126	1870	1816	1165	1870	1811	1355	1870	1729	1415	1870	1687
c, Capacity [veh/h]	835	944	916	866	952	922	394	203	188	428	211	191
d1, Uniform Delay [s]	4.21	8.71	8.72	4.20	8.66	8.67	19.85	26.92	26.99	19.82	27.24	27.35
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.44	0.46	0.05	0.50	0.52	0.08	1.70	2.01	0.08	3.14	3.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.19	0.19	0.09	0.21	0.21	0.08	0.47	0.50	0.08	0.63	0.67
d, Delay for Lane Group [s/veh]	4.41	9.15	9.17	4.25	9.16	9.19	19.94	28.62	29.00	19.90	30.38	31.32
Lane Group LOS	A	A	A	A	A	A	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	1.13	1.11	0.23	1.27	1.25	0.33	1.34	1.32	0.38	1.95	1.89
50th-Percentile Queue Length [ft/ln]	5.91	28.25	27.81	5.68	31.86	31.25	8.35	33.61	32.92	9.43	48.84	47.31
95th-Percentile Queue Length [veh/ln]	0.43	2.03	2.00	0.41	2.29	2.25	0.60	2.42	2.37	0.68	3.52	3.41
95th-Percentile Queue Length [ft/ln]	10.63	50.84	50.05	10.22	57.35	56.26	15.03	60.49	59.25	16.97	87.91	85.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.41	9.16	9.17	4.25	9.18	9.19	19.94	28.75	29.00	19.90	30.63	31.32
Movement LOS	A	A	A	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	8.37			8.35			27.56			29.54		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.82											
Intersection LOS	B											
Intersection V/C	0.287											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.551	0.000	2.502
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
I_b,int, Bicycle LOS Score for Intersection	1.905	1.949	1.741	1.804
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.409

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	9	0	0	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	83	1	135	101	182	0	1	185	56
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	23	0	38	28	51	0	0	52	16
Total Analysis Volume [veh/h]	0	0	0	93	1	151	113	204	0	1	207	63
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	610	703	595	649	587	660
Degree of Utilization, x	0.00	0.35	0.19	0.31	0.00	0.41

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.00	1.56	0.70	1.34	0.01	2.00
95th-Percentile Queue Length [ft]	0.00	39.07	17.40	33.58	0.13	49.94
Approach Delay [s/veh]	0.00	10.84	10.56		11.88	
Approach LOS	A	B	B		B	
Intersection Delay [s/veh]	11.07					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	88	68	0	176	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	476	68	0	607	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	125	18	0	160	0	1
Total Analysis Volume [veh/h]	501	72	0	639	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.67
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.56
d_A, Approach Delay [s/veh]	0.00		0.00		11.67	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	156	0	0	176	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	544	0	0	607	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	0	0	160	0	0
Total Analysis Volume [veh/h]	573	0	0	639	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.60	0.00	0.00	11.94
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.94	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

Report File: G:\...\AM EP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.702	16.9	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.626	5.4	A
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Right	0.043	17.4	C
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.751	20.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	2	3	0	10	0	0	0	11	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	203	127	18	436	17	4	81	63	372	75	19
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	35	5	122	5	1	23	18	104	21	5
Total Analysis Volume [veh/h]	21	226	142	20	486	19	4	90	70	415	84	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	61
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	40	0	0	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	61	61	61	61	61	61	61	61	61
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	29	29	29	29
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.09	0.02	0.27	0.00	0.09	0.34	0.06
s, saturation flow rate [veh/h]	894	1870	1589	1154	1858	1289	1736	1226	1806
c, Capacity [veh/h]	264	743	631	464	738	623	819	572	852
d1, Uniform Delay [s]	21.89	12.63	12.19	15.24	15.24	11.32	9.39	18.30	9.05
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.14	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	1.06	0.82	0.17	5.10	0.00	0.12	2.33	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.30	0.22	0.04	0.68	0.01	0.20	0.73	0.12
d, Delay for Lane Group [s/veh]	22.48	13.68	13.01	15.41	20.35	11.32	9.51	20.63	9.11
Lane Group LOS	C	B	B	B	C	B	A	C	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.26	1.82	1.11	0.18	5.36	0.03	0.89	4.54	0.56
50th-Percentile Queue Length [ft/ln]	6.55	45.41	27.86	4.57	133.96	0.65	22.34	113.39	14.10
95th-Percentile Queue Length [veh/ln]	0.47	3.27	2.01	0.33	9.15	0.05	1.61	8.03	1.02
95th-Percentile Queue Length [ft/ln]	11.80	81.74	50.14	8.22	228.87	1.16	40.22	200.71	25.38

Movement, Approach, & Intersection Results

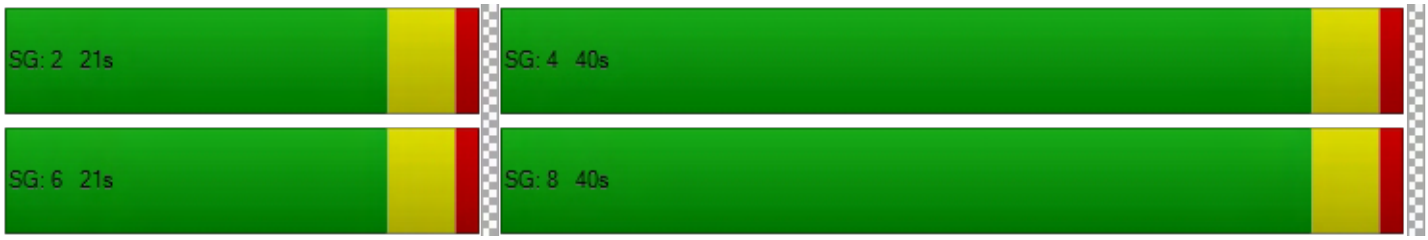
d_M, Delay for Movement [s/veh]	22.48	13.68	13.01	15.41	20.35	20.35	11.32	9.51	9.51	20.63	9.11	9.11
Movement LOS	C	B	B	B	C	C	B	A	A	C	A	A
d_A, Approach Delay [s/veh]	13.91			20.16			9.55			18.30		
Approach LOS	B			C			A			B		
d_I, Intersection Delay [s/veh]	16.94											
Intersection LOS	B											
Intersection V/C	0.702											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	557	557	1180	1180
d_b, Bicycle Delay [s]	15.87	15.87	5.12	5.12
l_b,int, Bicycle LOS Score for Intersection	2.201	2.426	1.830	2.418
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.626

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	168	16	0	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	378	168	16	922	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	44	4	243	18	1
Total Analysis Volume [veh/h]	398	177	17	971	72	3
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	78
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	66	0	0	66	12	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	78	78	78	78
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	64	64	64	6
g / C, Green / Cycle	0.82	0.82	0.82	0.07
(v / s)_i Volume / Saturation Flow Rate	0.32	0.02	0.52	0.04
s, saturation flow rate [veh/h]	1774	838	1870	1772
c, Capacity [veh/h]	1462	683	1541	130
d1, Uniform Delay [s]	1.78	3.45	2.51	34.96
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.80	0.07	1.97	4.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.02	0.63	0.58
d, Delay for Lane Group [s/veh]	2.58	3.52	4.47	38.98
Lane Group LOS	A	A	A	D
Critical Lane Group	No	No	Yes	Yes
50th-Percentile Queue Length [veh/ln]	0.32	0.06	0.84	1.49
50th-Percentile Queue Length [ft/ln]	8.08	1.43	21.04	37.30
95th-Percentile Queue Length [veh/ln]	0.58	0.10	1.51	2.69
95th-Percentile Queue Length [ft/ln]	14.55	2.58	37.87	67.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.58	2.58	3.52	4.47	38.98	38.98
Movement LOS	A	A	A	A	D	D
d_A, Approach Delay [s/veh]	2.58		4.46		38.98	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.38					
Intersection LOS	A					
Intersection V/C	0.626					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	39.00	39.00	39.00
l_b,int, Bicycle LOS Score for Intersection	5.081	5.763	4.256
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	0	0	12	0	0	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	222	0	0	68	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	578	17	4	973	14	0	0	12	0	0	11
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	162	5	1	272	4	0	0	3	0	0	3
Total Analysis Volume [veh/h]	21	647	19	4	1090	16	0	0	13	0	0	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	10.90	0.00	0.00	8.92	0.00	0.00	0.00	0.00	17.40	0.00	0.00	12.94
Movement LOS	B	A	A	A	A	A			C			B
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.08
95th-Percentile Queue Length [ft/ln]	2.58	0.00	0.00	0.33	0.00	0.00	0.00	0.00	3.35	0.00	0.00	1.98
d_A, Approach Delay [s/veh]	0.33			0.03			17.40			12.94		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	0.35											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.751

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	3	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	238	1	306	130	110	0	0	232	135
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	90	38	32	0	0	68	40
Total Analysis Volume [veh/h]	0	1	0	279	1	359	152	129	0	0	272	158
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	68
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	68	68	68	68	68	68
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	28	28	28	28
g / C, Green / Cycle	0.48	0.48	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.00	0.42	0.16	0.07	0.00	0.24
s, saturation flow rate [veh/h]	1870	1529	958	1870	1261	1756
c, Capacity [veh/h]	945	805	288	758	531	712
d1, Uniform Delay [s]	9.31	15.78	26.47	12.91	0.00	15.91
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	7.92	1.49	0.11	0.00	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.79	0.53	0.17	0.00	0.60
d, Delay for Lane Group [s/veh]	9.31	23.70	27.97	13.01	0.00	16.74
Lane Group LOS	A	C	C	B	A	B
Critical Lane Group	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	8.12	2.16	1.02	0.00	4.28
50th-Percentile Queue Length [ft/ln]	0.19	203.03	53.94	25.57	0.00	106.92
95th-Percentile Queue Length [veh/ln]	0.01	12.79	3.88	1.84	0.00	7.67
95th-Percentile Queue Length [ft/ln]	0.34	319.87	97.10	46.03	0.00	191.71

Movement, Approach, & Intersection Results

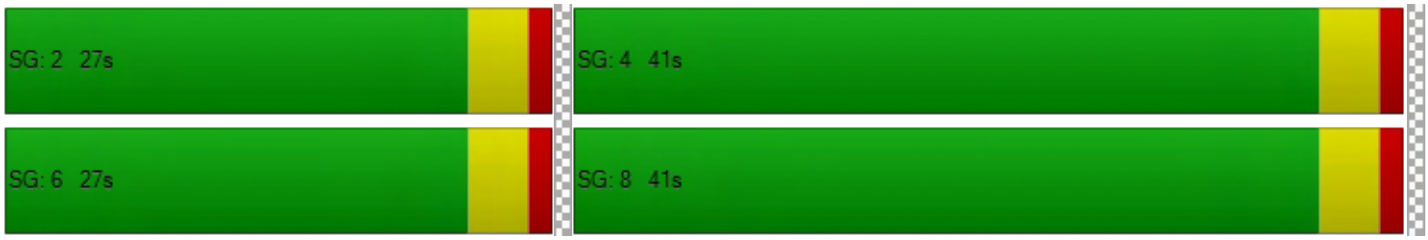
d_M, Delay for Movement [s/veh]	9.31	9.31	9.31	23.70	23.70	23.70	27.97	13.01	13.01	0.00	16.74	16.74
Movement LOS	A	A	A	C	C	C	C	B	B	A	B	B
d_A, Approach Delay [s/veh]	9.31			23.70			21.10			16.74		
Approach LOS	A			C			C			B		
d_I, Intersection Delay [s/veh]	20.93											
Intersection LOS	C											
Intersection V/C	0.751											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	676	676	1088	1088
d_b, Bicycle Delay [s]	14.89	14.89	7.07	7.07
l_b,int, Bicycle LOS Score for Intersection	1.561	2.614	2.023	2.269
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\PM E MIT.vistro

Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

Report File: G:\...\PM EP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.451	11.1	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.742	11.4	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.012	15.9	C
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.522	13.9	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.451

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	13	13	0	7	0	0	0	7	8	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	429	330	28	227	0	5	85	22	193	93	34
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	110	85	7	58	0	1	22	6	50	24	9
Total Analysis Volume [veh/h]	25	441	340	29	234	0	5	87	23	199	96	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	20	0	0	20	0	0	40	0	0	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	16	16	16	16
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.59	0.27	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.21	0.03	0.13	0.00	0.06	0.16	0.07
s, saturation flow rate [veh/h]	1146	1870	1589	948	1870	1259	1803	1283	1786
c, Capacity [veh/h]	693	1111	944	530	1111	351	492	369	487
d1, Uniform Delay [s]	7.66	6.47	6.29	9.97	5.65	20.06	16.90	23.06	17.13
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	1.06	1.07	0.20	0.43	0.02	0.23	1.23	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.40	0.36	0.05	0.21	0.01	0.22	0.54	0.27
d, Delay for Lane Group [s/veh]	7.75	7.53	7.36	10.16	6.08	20.08	17.13	24.29	17.42
Lane Group LOS	A	A	A	B	A	C	B	C	B
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	1.90	1.46	0.19	0.86	0.05	0.98	2.35	1.19
50th-Percentile Queue Length [ft/ln]	3.21	47.61	36.55	4.78	21.60	1.24	24.55	58.63	29.68
95th-Percentile Queue Length [veh/ln]	0.23	3.43	2.63	0.34	1.56	0.09	1.77	4.22	2.14
95th-Percentile Queue Length [ft/ln]	5.78	85.70	65.79	8.60	38.88	2.24	44.18	105.54	53.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.75	7.53	7.36	10.16	6.08	6.08	20.08	17.13	17.13	24.29	17.42	17.42
Movement LOS	A	A	A	B	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	7.47			6.53			17.26			21.56		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	11.12											
Intersection LOS	B											
Intersection V/C	0.451											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	533	1200	1200
d_b, Bicycle Delay [s]	16.13	16.13	4.80	4.80
l_b,int, Bicycle LOS Score for Intersection	2.890	1.994	1.749	2.104
Bicycle LOS	C	A	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.742

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	95	12	0	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	762	95	12	440	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	201	25	3	116	63	4
Total Analysis Volume [veh/h]	802	100	13	463	251	16
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	49	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	41	41	41	11
g / C, Green / Cycle	0.68	0.68	0.68	0.19
(v / s)_i Volume / Saturation Flow Rate	0.49	0.02	0.25	0.15
s, saturation flow rate [veh/h]	1834	618	1870	1768
c, Capacity [veh/h]	1244	314	1268	334
d1, Uniform Delay [s]	6.13	14.41	4.14	23.30
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.71	0.25	0.81	4.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.04	0.37	0.80
d, Delay for Lane Group [s/veh]	9.84	14.65	4.95	27.73
Lane Group LOS	A	B	A	C
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.64	0.12	1.11	3.77
50th-Percentile Queue Length [ft/ln]	91.08	2.99	27.64	94.17
95th-Percentile Queue Length [veh/ln]	6.56	0.22	1.99	6.78
95th-Percentile Queue Length [ft/ln]	163.95	5.39	49.75	169.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.84	9.84	14.65	4.95	27.73	27.73
Movement LOS	A	A	B	A	C	C
d_A, Approach Delay [s/veh]	9.84		5.22		27.73	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	11.41					
Intersection LOS	B					
Intersection V/C	0.742					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	5.621	4.918	4.573
Bicycle LOS	F	E	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	0	0	22	0	0	4
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	153	0	0	238	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	896	4	0	675	3	0	0	23	0	0	4
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	237	1	0	178	1	0	0	6	0	0	1
Total Analysis Volume [veh/h]	11	947	4	0	714	3	0	0	24	0	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	9.12	0.00	0.00	9.98	0.00	0.00	0.00	0.00	13.86	0.00	0.00	15.89
Movement LOS	A	A	A	A	A	A			B			C
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.04
95th-Percentile Queue Length [ft/ln]	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.41	0.00	0.00	0.91
d_A, Approach Delay [s/veh]	0.10			0.00			13.86			15.89		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	0.29											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.522

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	13	0	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	3	128	1	145	231	254	0	1	200	151
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	35	0	40	63	70	0	0	55	41
Total Analysis Volume [veh/h]	0	1	3	141	1	159	254	279	0	1	220	166
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	13	0	0	13	0	0	47	0	0	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	30	30	30	30
g / C, Green / Cycle	0.36	0.36	0.51	0.51	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.00	0.20	0.25	0.15	0.00	0.22
s, saturation flow rate [veh/h]	1651	1524	997	1870	1100	1738
c, Capacity [veh/h]	654	636	415	948	511	881
d1, Uniform Delay [s]	12.34	15.17	19.96	8.57	12.49	9.38
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	2.51	1.47	0.17	0.00	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.47	0.61	0.29	0.00	0.44
d, Delay for Lane Group [s/veh]	12.35	17.69	21.43	8.74	12.49	9.72
Lane Group LOS	B	B	C	A	B	A
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.03	2.92	2.79	1.42	0.01	2.16
50th-Percentile Queue Length [ft/ln]	0.86	73.05	69.86	35.41	0.17	53.99
95th-Percentile Queue Length [veh/ln]	0.06	5.26	5.03	2.55	0.01	3.89
95th-Percentile Queue Length [ft/ln]	1.55	131.49	125.74	63.75	0.31	97.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.35	12.35	12.35	17.69	17.69	17.69	21.43	8.74	8.74	12.49	9.72	9.72
Movement LOS	B	B	B	B	B	B	C	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.35			17.69			14.79			9.73		
Approach LOS	B			B			B			A		
d_I, Intersection Delay [s/veh]	13.89											
Intersection LOS	B											
Intersection V/C	0.522											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	300	300	1433	1433
d_b, Bicycle Delay [s]	21.68	21.68	2.41	2.41
l_b,int, Bicycle LOS Score for Intersection	1.566	2.056	2.439	2.198
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\SAT E MIT.vistro

Scenario 2 Existing (2021) Plus Project Without Amphitheater Event

Report File: G:\...\SAT EP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.334	11.6	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.449	8.2	A
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Right	0.047	12.7	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.357	15.7	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.334

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	8	9	0	6	0	0	0	6	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	219	177	21	222	3	4	58	27	200	84	19
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	58	47	6	59	1	1	15	7	53	22	5
Total Analysis Volume [veh/h]	17	232	187	22	235	3	4	61	29	211	89	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	35	35	17	17	17	17
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.59	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.12	0.02	0.13	0.00	0.05	0.16	0.06
s, saturation flow rate [veh/h]	1142	1870	1589	1148	1866	1284	1769	1306	1811
c, Capacity [veh/h]	692	1099	934	697	1097	369	494	383	505
d1, Uniform Delay [s]	7.59	5.82	5.78	7.57	5.85	19.56	16.44	22.82	16.60
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	0.44	0.48	0.08	0.45	0.01	0.18	1.24	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.21	0.20	0.03	0.22	0.01	0.18	0.55	0.22
d, Delay for Lane Group [s/veh]	7.66	6.26	6.26	7.65	6.30	19.57	16.61	24.06	16.81
Lane Group LOS	A	A	A	A	A	B	B	C	B
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.09	0.88	0.72	0.11	0.91	0.04	0.79	2.48	0.96
50th-Percentile Queue Length [ft/ln]	2.16	22.04	18.09	2.79	22.72	0.98	19.63	61.90	24.01
95th-Percentile Queue Length [veh/ln]	0.16	1.59	1.30	0.20	1.64	0.07	1.41	4.46	1.73
95th-Percentile Queue Length [ft/ln]	3.89	39.67	32.56	5.02	40.90	1.76	35.33	111.43	43.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.66	6.26	6.26	7.65	6.30	6.30	19.57	16.61	16.61	24.06	16.81	16.81
Movement LOS	A	A	A	A	A	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	6.32			6.41			16.74			21.59		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	11.62											
Intersection LOS	B											
Intersection V/C	0.334											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	233	1500	1500
d_b, Bicycle Delay [s]	23.41	23.41	1.88	1.88
l_b,int, Bicycle LOS Score for Intersection	2.279	1.989	1.715	2.088
Bicycle LOS	B	A	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.449

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	83	11	0	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	397	83	11	431	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	22	3	113	46	3
Total Analysis Volume [veh/h]	418	87	12	454	185	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	49	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	43	43	43	9
g / C, Green / Cycle	0.72	0.72	0.72	0.14
(v / s)_i Volume / Saturation Flow Rate	0.28	0.01	0.24	0.11
s, saturation flow rate [veh/h]	1815	894	1870	1769
c, Capacity [veh/h]	1312	630	1352	254
d1, Uniform Delay [s]	3.19	5.61	3.04	24.76
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.86	0.06	0.67	4.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.02	0.34	0.77
d, Delay for Lane Group [s/veh]	4.05	5.66	3.71	29.66
Lane Group LOS	A	A	A	C
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.72	0.05	0.60	2.86
50th-Percentile Queue Length [ft/ln]	18.03	1.19	15.07	71.52
95th-Percentile Queue Length [veh/ln]	1.30	0.09	1.09	5.15
95th-Percentile Queue Length [ft/ln]	32.45	2.15	27.13	128.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.05	4.05	5.66	3.71	29.66	29.66
Movement LOS	A	A	A	A	C	C
d_A, Approach Delay [s/veh]	4.05		3.77		29.66	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	8.24					
Intersection LOS	A					
Intersection V/C	0.449					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.00	30.00	30.00
l_b,int, Bicycle LOS Score for Intersection	4.966	4.901	4.456
Bicycle LOS	E	E	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.047

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	0	0	22	0	0	3
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	156	0	0	176	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	515	18	1	599	5	0	0	23	0	0	3
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	131	5	0	153	1	0	0	6	0	0	1
Total Analysis Volume [veh/h]	18	525	18	1	611	5	0	0	23	0	0	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	8.81	0.00	0.00	8.51	0.00	0.00	0.00	0.00	12.67	0.00	0.00	11.63
Movement LOS	A	A	A	A	A	A			B			B
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	1.43	0.00	0.00	0.07	0.00	0.00	0.00	0.00	3.67	0.00	0.00	0.41
d_A, Approach Delay [s/veh]	0.28			0.01			12.67			11.63		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.41											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.357

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	9	0	0	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	83	1	135	101	182	0	1	185	56
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	23	0	38	28	51	0	0	52	16
Total Analysis Volume [veh/h]	0	0	0	93	1	151	113	204	0	1	207	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	25	0	0	25	0	0	35	0	0	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	18	18	18	18
g / C, Green / Cycle	0.57	0.57	0.29	0.29	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.00	0.16	0.10	0.11	0.00	0.15
s, saturation flow rate [veh/h]	1870	1538	1109	1870	1178	1796
c, Capacity [veh/h]	1126	960	278	554	333	532
d1, Uniform Delay [s]	0.00	6.48	24.54	16.67	20.15	17.48
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.64	0.95	0.41	0.00	0.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.26	0.41	0.37	0.00	0.51
d, Delay for Lane Group [s/veh]	0.00	7.13	25.49	17.08	20.15	18.23
Lane Group LOS	A	A	C	B	C	B
Critical Lane Group	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.06	1.37	1.83	0.01	2.57
50th-Percentile Queue Length [ft/ln]	0.00	26.61	34.20	45.82	0.25	64.18
95th-Percentile Queue Length [veh/ln]	0.00	1.92	2.46	3.30	0.02	4.62
95th-Percentile Queue Length [ft/ln]	0.00	47.90	61.56	82.48	0.45	115.53

Movement, Approach, & Intersection Results

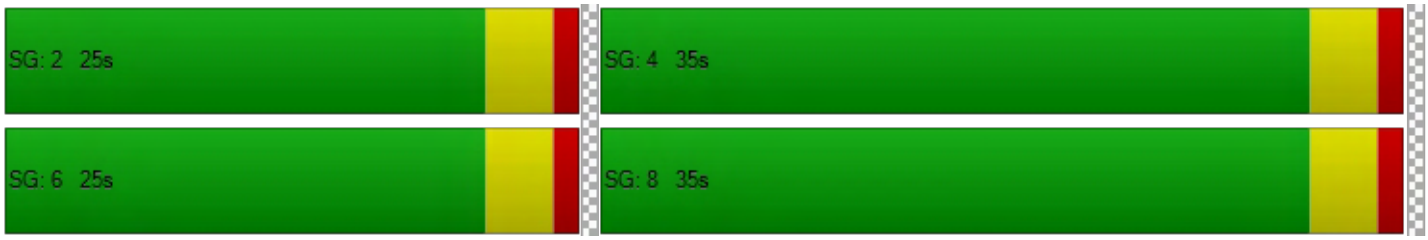
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.13	7.13	7.13	25.49	17.08	17.08	20.15	18.23	18.23
Movement LOS	A	A	A	A	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	0.00			7.13			20.08			18.24		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	15.67											
Intersection LOS	B											
Intersection V/C	0.357											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	700	700	1033	1033
d_b, Bicycle Delay [s]	12.68	12.68	7.01	7.01
l_b,int, Bicycle LOS Score for Intersection	1.560	1.964	2.083	2.007
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Existing Plus Project With Amphitheater Event

Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\AM E.vistro

Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\AM EP Amphitheater.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	0.755	18.9	C
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	1.126	70.3	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.005	10.5	B
4	Project Dwy (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.003	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.550	61.5	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.120	73.2	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.441	16.0	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.215	24.9	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.287	16.2	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.374	15.6	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.288	28.9	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.569	15.9	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.475	15.7	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	1.055	48.9	E
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.002	12.2	B
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	12.4	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	1	0	4	0	0	0	0	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	140	96	50	262	30	22	93	34	138	54	21
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	42	29	15	78	9	7	28	10	41	16	6
Total Analysis Volume [veh/h]	10	167	115	60	313	36	26	111	41	165	65	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	516	577	541	479	536	495
Degree of Utilization, x	0.34	0.20	0.76	0.29	0.08	0.52

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.51	0.74	6.62	1.17	0.25	2.91
95th-Percentile Queue Length [ft]	37.86	18.44	165.40	29.30	6.18	72.68
Approach Delay [s/veh]	12.19		27.32	12.47		17.75
Approach LOS	B		D	B		C
Intersection Delay [s/veh]	18.94					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	70.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.126

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	2	3	0	10	0	0	0	11	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	203	127	18	436	17	4	81	63	372	75	19
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	35	5	122	5	1	23	18	104	21	5
Total Analysis Volume [veh/h]	21	226	142	20	486	19	4	90	70	415	84	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	436	478	506	512	406	441	499	512
Degree of Utilization, x	0.57	0.30	1.09	0.04	0.23	0.16	1.13	0.04

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.43	1.23	16.55	0.12	0.88	0.56	17.61	0.13
95th-Percentile Queue Length [ft]	85.80	30.83	413.82	2.89	22.11	13.99	440.28	3.20
Approach Delay [s/veh]	18.39		91.67		13.45		105.35	
Approach LOS	C		F		B		F	
Intersection Delay [s/veh]	70.25							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	10	17	16	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	371	10	17	938	0	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	3	4	247	0	1
Total Analysis Volume [veh/h]	391	11	18	987	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.16	0.00	0.00	10.50
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.19	0.00	0.00	0.34
d_A, Approach Delay [s/veh]	0.00		0.15		10.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	27	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	0
Total Analysis Volume [veh/h]	3	0	0	28	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.27	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	61.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	168	16	0	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	378	168	16	922	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	44	4	243	18	1
Total Analysis Volume [veh/h]	398	177	17	971	72	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.01	0.55	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.67	0.00	61.49	40.20
Movement LOS	A	A	A	A	F	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	2.74	2.74
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.22	1.22	68.52	68.52
d_A, Approach Delay [s/veh]	0.00		0.15		60.63	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	2.87					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	73.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	222	0	0	68	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	578	17	4	973	14	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	162	5	1	272	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	21	647	19	4	1090	16	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

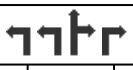
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.12	0.00	0.03	0.12	0.00	0.01
d_M, Delay for Movement [s/veh]	10.90	0.00	0.00	8.92	0.00	0.00	73.21	59.57	25.34	73.05	58.72	18.42
Movement LOS	B	A	A	A	A	A	F	F	D	F	F	C
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.01	0.01	0.49	0.49	0.49	0.45	0.45	0.45
95th-Percentile Queue Length [ft/ln]	2.58	0.00	0.00	0.33	0.33	0.33	12.34	12.34	12.34	11.15	11.15	11.15
d_A, Approach Delay [s/veh]	0.33			0.03			49.27			47.84		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	0.86											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.441

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	76	0	0	68	0	0	0	0	0	0	146
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	359	6	3	929	17	17	2	67	264	53	244
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	98	2	1	253	5	5	1	18	72	14	66
Total Analysis Volume [veh/h]	21	391	7	3	1011	18	18	2	73	287	58	266
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	15	0	17	21	0	11	15	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	35	35	0	33	33	2	5	5	8	11	11
g / C, Green / Cycle	0.04	0.54	0.54	0.01	0.52	0.52	0.03	0.08	0.08	0.12	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.01	0.11	0.00	0.00	0.19	0.19	0.01	0.00	0.05	0.08	0.10	0.10
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1853	1781	1870	1589	3459	1677	1589
c, Capacity [veh/h]	65	1929	861	14	1826	951	58	154	131	413	284	269
d1, Uniform Delay [s]	30.20	7.58	6.78	31.71	9.41	9.42	30.41	27.09	28.37	27.18	24.61	24.62
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.84	0.24	0.02	7.94	0.58	1.11	3.05	0.03	3.67	2.12	1.91	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.20	0.01	0.22	0.37	0.37	0.31	0.01	0.56	0.70	0.58	0.59
d, Delay for Lane Group [s/veh]	33.03	7.82	6.80	39.65	9.99	10.53	33.46	27.13	32.04	29.30	26.52	26.64
Lane Group LOS	C	A	A	D	A	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.33	0.96	0.03	0.07	2.07	2.30	0.31	0.03	1.17	2.13	2.35	2.24
50th-Percentile Queue Length [ft/ln]	8.27	24.11	0.82	1.78	51.83	57.52	7.75	0.71	29.13	53.21	58.74	56.07
95th-Percentile Queue Length [veh/ln]	0.60	1.74	0.06	0.13	3.73	4.14	0.56	0.05	2.10	3.83	4.23	4.04
95th-Percentile Queue Length [ft/ln]	14.89	43.40	1.48	3.20	93.30	103.54	13.96	1.28	52.43	95.78	105.73	100.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.03	7.82	6.80	39.65	10.17	10.53	33.46	27.13	32.04	29.30	26.52	26.59
Movement LOS	C	A	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.07			10.26			32.21			27.86		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.96											
Intersection LOS	B											
Intersection V/C	0.441											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.943	2.159	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	344	531	344	531
d_b, Bicycle Delay [s]	21.95	17.26	21.95	17.26
l_b,int, Bicycle LOS Score for Intersection	1.905	2.127	1.713	2.568
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	146	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	527	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	148	3	1	0	1	2
Total Analysis Volume [veh/h]	592	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	31	0	11	0	18	29
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	38	0	42
g / C, Green / Cycle	0.22	0.22	0.59	0.01	0.66
(v / s)_i Volume / Saturation Flow Rate	0.17	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	760	349	1049	13	2334
d1, Uniform Delay [s]	23.55	19.64	5.52	31.64	3.82
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.77	0.03	0.01	8.09	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.03	0.00	0.22	0.00
d, Delay for Lane Group [s/veh]	25.32	19.68	5.53	39.74	3.82
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.12	0.11	0.02	0.07	0.01
50th-Percentile Queue Length [ft/ln]	103.00	2.85	0.50	1.87	0.30
95th-Percentile Queue Length [veh/ln]	7.42	0.21	0.04	0.13	0.02
95th-Percentile Queue Length [ft/ln]	185.39	5.13	0.89	3.36	0.54

Movement, Approach, & Intersection Results

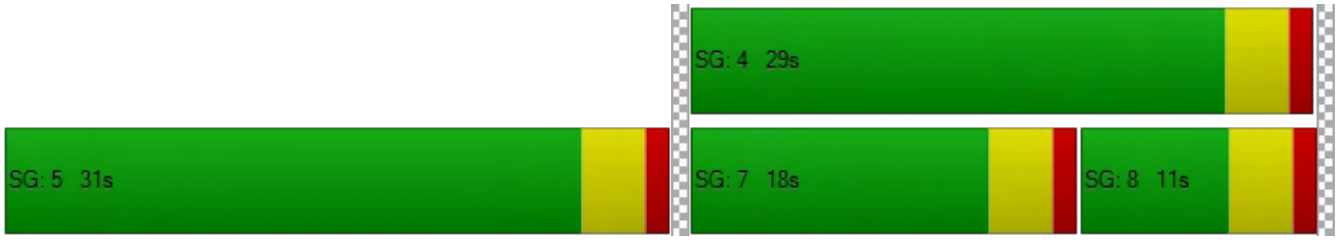
d_M, Delay for Movement [s/veh]	25.32	19.68	5.53	5.53	39.74	3.82
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	25.22		5.53		14.59	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.92					
Intersection LOS	C					
Intersection V/C	0.215					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.00	32.00	32.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.287

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	63	0	0	0	0	40
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	18	7	30	59	171
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	5	2	9	17	50
Total Analysis Volume [veh/h]	444	21	8	35	69	200
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	11	11	1	43	38	53
g / C, Green / Cycle	0.18	0.18	0.02	0.69	0.61	0.86
(v / s)_i Volume / Saturation Flow Rate	0.13	0.01	0.00	0.02	0.04	0.13
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	630	290	29	1289	1137	1359
d1, Uniform Delay [s]	23.85	21.06	30.19	3.06	4.95	0.75
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.46	0.10	4.84	0.04	0.10	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.07	0.27	0.03	0.06	0.15
d, Delay for Lane Group [s/veh]	25.30	21.17	35.03	3.10	5.06	0.80
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.99	0.25	0.15	0.10	0.31	0.02
50th-Percentile Queue Length [ft/ln]	74.70	6.19	3.82	2.55	7.70	0.47
95th-Percentile Queue Length [veh/ln]	5.38	0.45	0.28	0.18	0.55	0.03
95th-Percentile Queue Length [ft/ln]	134.46	11.14	6.88	4.59	13.85	0.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.30	21.17	35.03	3.10	5.06	0.80
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	25.12		9.04		1.89	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	16.19					
Intersection LOS	B					
Intersection V/C	0.287					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.98	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.274	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.00	31.00	31.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.203	4.576
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.374

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	13	0	0	4	40	63	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	472	10	159	809	187	188	12	212	23	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	132	3	45	226	52	53	3	59	6	1	3
Total Analysis Volume [veh/h]	22	529	11	178	906	209	211	13	237	26	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	12	21	0	12	21	0	11	21	21	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	31	31	8	36	36	7	7	15	3	3
g / C, Green / Cycle	0.06	0.48	0.48	0.12	0.55	0.55	0.11	0.11	0.22	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.10	0.10	0.25	0.13	0.06	0.01	0.15	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1851	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	103	1712	890	221	1948	870	368	201	360	76	74
d1, Uniform Delay [s]	29.35	9.77	9.77	27.84	8.98	7.71	27.75	26.19	22.96	30.35	30.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	0.27	0.53	6.83	0.80	0.65	1.41	0.13	2.06	2.63	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.21	0.21	0.81	0.47	0.24	0.57	0.06	0.66	0.34	0.22
d, Delay for Lane Group [s/veh]	30.38	10.04	10.30	34.66	9.78	8.36	29.16	26.32	25.02	32.98	31.60
Lane Group LOS	C	B	B	C	A	A	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.32	1.12	1.23	2.76	2.73	1.15	1.57	0.18	3.31	0.44	0.26
50th-Percentile Queue Length [ft/ln]	8.00	27.97	30.78	69.00	68.16	28.80	39.14	4.53	82.75	10.93	6.58
95th-Percentile Queue Length [veh/ln]	0.58	2.01	2.22	4.97	4.91	2.07	2.82	0.33	5.96	0.79	0.47
95th-Percentile Queue Length [ft/ln]	14.41	50.35	55.40	124.19	122.69	51.83	70.45	8.16	148.95	19.67	11.84

Movement, Approach, & Intersection Results

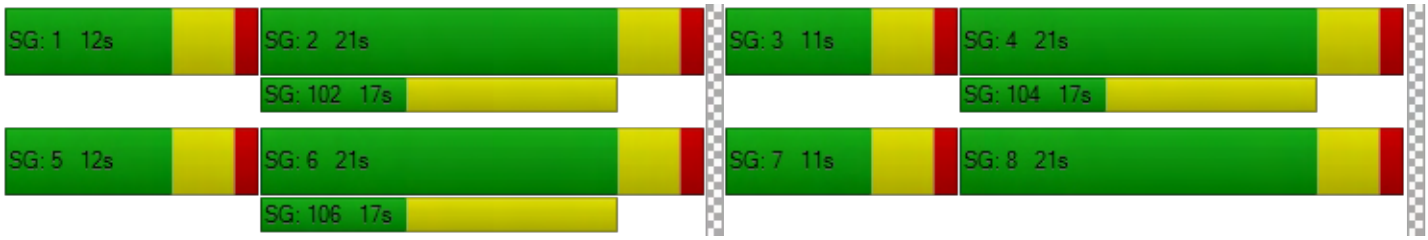
d_M, Delay for Movement [s/veh]	30.38	10.13	10.30	34.66	9.78	8.36	29.16	26.32	25.02	32.98	31.60	31.60
Movement LOS	C	B	B	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.92			12.98			26.95			32.46		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.57											
Intersection LOS	B											
Intersection V/C	0.374											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	22.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.098	2.548	2.002
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
l_b,int, Bicycle LOS Score for Intersection	1.869	2.626	2.320	1.629
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	4	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	463	1025	25	61	64
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	131	291	7	17	18
Total Analysis Volume [veh/h]	27	525	1162	28	69	73
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.29	0.16
d_M, Delay for Movement [s/veh]	11.48	0.00	0.00	0.00	28.94	21.78
Movement LOS	B	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	2.21	2.21
95th-Percentile Queue Length [ft/ln]	3.64	0.00	0.00	0.00	55.29	55.29
d_A, Approach Delay [s/veh]	0.56		0.00		25.26	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.07					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	0	1	3	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	370	10	207	911	36	50	62	40	27	69	155
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	106	3	59	261	10	14	18	11	8	20	44
Total Analysis Volume [veh/h]	33	424	11	237	1044	41	57	71	46	31	79	178
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	24	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	32	32	43	36	36	19	12	12	19	10	10
g / C, Green / Cycle	0.62	0.46	0.46	0.62	0.51	0.51	0.27	0.17	0.17	0.27	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.12	0.12	0.21	0.29	0.29	0.04	0.04	0.03	0.02	0.04	0.11
s, saturation flow rate [veh/h]	678	1870	1853	1125	1870	1845	1484	1870	1589	1454	1870	1589
c, Capacity [veh/h]	460	859	851	774	954	941	508	312	265	506	271	231
d1, Uniform Delay [s]	6.96	11.61	11.61	6.24	11.88	11.89	19.34	25.31	25.07	19.04	26.76	28.86
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.71	0.72	0.22	2.49	2.53	0.10	0.37	0.31	0.05	0.59	5.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.25	0.25	0.31	0.57	0.57	0.11	0.23	0.17	0.06	0.29	0.77
d, Delay for Lane Group [s/veh]	7.27	12.32	12.34	6.46	14.37	14.42	19.44	25.68	25.38	19.09	27.35	34.29
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.17	1.88	1.87	1.11	5.24	5.19	0.69	1.03	0.67	0.34	1.10	2.92
50th-Percentile Queue Length [ft/ln]	4.24	47.11	46.86	27.83	130.94	129.76	17.36	25.83	16.63	8.40	27.62	73.11
95th-Percentile Queue Length [veh/ln]	0.31	3.39	3.37	2.00	8.99	8.93	1.25	1.86	1.20	0.60	1.99	5.26
95th-Percentile Queue Length [ft/ln]	7.63	84.81	84.35	50.09	224.77	223.16	31.26	46.49	29.94	15.12	49.71	131.59

Movement, Approach, & Intersection Results

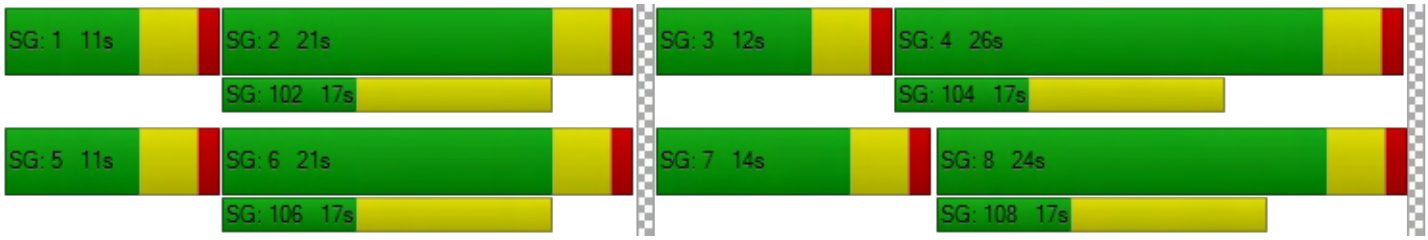
d_M, Delay for Movement [s/veh]	7.27	12.33	12.34	6.46	14.39	14.42	19.44	25.68	25.38	19.09	27.35	34.29
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	11.97			12.97			23.55			30.75		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.85											
Intersection LOS	B											
Intersection V/C	0.569											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.759	2.880	2.209	2.529
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	629
d_b, Bicycle Delay [s]	20.06	20.06	17.86	16.46
l_b,int, Bicycle LOS Score for Intersection	1.946	2.650	1.847	2.035
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	1	2	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	291	19	135	797	46	22	230	28	35	145	76
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	79	5	37	218	13	6	63	8	10	40	21
Total Analysis Volume [veh/h]	48	318	21	147	870	50	24	251	31	38	158	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	31	31	41	33	33	15	7	7	15	8	8
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.23	0.11	0.11	0.23	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.06	0.09	0.09	0.12	0.25	0.25	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	783	1870	1830	1196	1870	1834	1335	1870	1799	1352	1870	1662
c, Capacity [veh/h]	564	891	872	874	962	944	408	216	207	405	245	218
d1, Uniform Delay [s]	5.30	9.69	9.69	4.62	10.08	10.08	19.26	27.23	27.27	19.45	25.99	26.10
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.48	0.49	0.09	1.73	1.77	0.06	3.43	3.75	0.10	1.61	2.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.19	0.19	0.17	0.48	0.48	0.06	0.66	0.67	0.09	0.51	0.54
d, Delay for Lane Group [s/veh]	5.60	10.16	10.19	4.71	11.82	11.85	19.32	30.66	31.02	19.55	27.61	28.15
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	1.19	1.18	0.47	3.58	3.52	0.25	2.09	2.06	0.40	1.70	1.62
50th-Percentile Queue Length [ft/ln]	4.60	29.82	29.50	11.72	89.46	88.00	6.32	52.21	51.59	10.10	42.39	40.60
95th-Percentile Queue Length [veh/ln]	0.33	2.15	2.12	0.84	6.44	6.34	0.46	3.76	3.71	0.73	3.05	2.92
95th-Percentile Queue Length [ft/ln]	8.28	53.67	53.10	21.09	161.03	158.40	11.38	93.99	92.87	18.18	76.31	73.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.60	10.17	10.19	4.71	11.83	11.85	19.32	30.82	31.02	19.55	27.72	28.15
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	9.61			10.85			29.94			26.74		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	15.65											
Intersection LOS	B											
Intersection V/C	0.475											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.723	0.000	2.592
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.879	2.440	1.812	1.790
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	48.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.055

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	3	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	238	1	306	130	110	0	0	232	135
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	90	38	32	0	0	68	40
Total Analysis Volume [veh/h]	0	1	0	279	1	359	152	129	0	0	272	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	459	639	456	487	513	532
Degree of Utilization, x	0.00	1.05	0.33	0.26	0.00	0.81

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.01	17.70	1.44	1.06	0.00	7.84
95th-Percentile Queue Length [ft]	0.16	442.48	36.12	26.41	0.00	195.94
Approach Delay [s/veh]	10.87	75.85	13.69		32.09	
Approach LOS	B	F	B		D	
Intersection Delay [s/veh]	48.94					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	178	44	0	68	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	545	44	0	990	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	12	0	261	0	0
Total Analysis Volume [veh/h]	574	46	0	1042	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.17
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.15
d_A, Approach Delay [s/veh]	0.00		0.00		12.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	222	0	0	68	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	589	0	0	990	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	155	0	0	261	0	0
Total Analysis Volume [veh/h]	620	0	0	1042	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.75	0.00	0.00	12.38
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		12.38	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	B					

Coachillin Industrial Park Parcels 30-31

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Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\PM EP Amphitheater.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.647	15.9	C
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Thru	0.923	30.1	D
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.053	15.2	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.020	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	1.651	390.3	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	4.330	1,729.6	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Thru	0.841	28.4	C
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.422	24.0	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.485	14.6	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.573	20.1	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.067	14.7	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.548	17.9	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.446	16.3	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.699	17.2	C
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	81.1	F
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.012	16.3	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.025	16.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	11	0	2	0	0	0	0	22	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	309	123	34	154	16	22	103	15	106	79	62
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	81	32	9	40	4	6	27	4	28	21	16
Total Analysis Volume [veh/h]	40	322	128	35	161	17	23	107	16	111	82	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	560	636	528	492	553	525
Degree of Utilization, x	0.65	0.20	0.40	0.26	0.03	0.49

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.62	0.75	1.93	1.05	0.09	2.68
95th-Percentile Queue Length [ft]	115.58	18.69	48.32	26.29	2.23	67.07
Approach Delay [s/veh]	17.43		14.35	12.26		16.30
Approach LOS	C		B	B		C
Intersection Delay [s/veh]	15.89					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	30.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.923

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	16	18	0	24	0	0	0	7	34	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	432	335	28	244	0	5	85	22	219	93	34
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	111	86	7	63	0	1	22	6	56	24	9
Total Analysis Volume [veh/h]	25	444	345	29	251	0	5	87	23	225	96	35
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	508	567	464	468	418	458	441	508
Degree of Utilization, x	0.92	0.61	0.60	0.00	0.22	0.05	0.73	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.05	4.07	3.89	0.00	0.83	0.16	5.79	0.22
95th-Percentile Queue Length [ft]	276.26	101.74	97.36	0.00	20.75	3.95	144.73	5.53
Approach Delay [s/veh]	36.33		21.52		13.18		27.86	
Approach LOS	E		C		B		D	
Intersection Delay [s/veh]	30.05							
Intersection LOS	D							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.053

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	5	10	55	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	780	5	10	495	0	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	205	1	3	130	0	5
Total Analysis Volume [veh/h]	821	5	11	521	0	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.01	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	9.54	0.00	0.00	15.16
Movement LOS	A	A	A	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.17
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.04	0.00	0.00	4.22
d_A, Approach Delay [s/veh]	0.00		0.20		15.16	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.30					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	15	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	4	0	0
Total Analysis Volume [veh/h]	20	0	0	16	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.63	8.42	0.00	0.00	7.25	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.51	1.51	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.79					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	390.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.651

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	95	12	43	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	770	95	12	483	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	203	25	3	127	63	4
Total Analysis Volume [veh/h]	811	100	13	508	251	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.01	1.65	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	9.90	0.00	390.34	376.79
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	18.98	18.98
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.22	1.22	474.42	474.42
d_A, Approach Delay [s/veh]	0.00		0.25		389.53	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	61.29					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,729.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.330

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	153	810	0	238	0	0	0	0	142	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	896	814	0	675	3	9	0	14	145	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	237	215	0	178	1	2	0	4	38	0	0
Total Analysis Volume [veh/h]	11	947	860	0	714	3	10	0	15	153	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

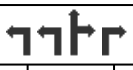
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.01	0.00	0.27	0.00	0.03	4.33	0.00	0.01
d_M, Delay for Movement [s/veh]	9.12	0.00	0.00	15.58	0.00	0.00	122.83	159.19	32.23	1729.55	1699.72	1647.97
Movement LOS	A	A	A	C	A	A	F	F	D	F	F	F
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.00	0.00	0.00	1.15	1.15	1.15	18.02	18.02	18.02
95th-Percentile Queue Length [ft/ln]	0.94	0.00	0.00	0.00	0.00	0.00	28.87	28.87	28.87	450.38	450.38	450.38
d_A, Approach Delay [s/veh]	0.06			0.00			68.47			1729.02		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	98.78											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	486	0	65	315	0	0	0	0	0	0	477
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1107	3	65	758	20	23	1	84	220	38	696
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	295	1	17	202	5	6	0	22	59	10	186
Total Analysis Volume [veh/h]	48	1181	3	69	809	21	25	1	90	235	41	743
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	18	0	14	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	22	22	5	23	23	3	14	14	7	18	18
g / C, Green / Cycle	0.06	0.35	0.35	0.08	0.36	0.36	0.04	0.22	0.22	0.11	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.03	0.33	0.00	0.04	0.15	0.15	0.01	0.00	0.06	0.07	0.24	0.25
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1846	1781	1870	1589	3459	1615	1589
c, Capacity [veh/h]	116	1236	552	142	1287	667	74	403	342	377	457	449
d1, Uniform Delay [s]	28.86	20.50	13.73	28.33	15.48	15.49	29.94	19.79	20.97	27.38	21.84	21.95
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	16.97	0.02	2.57	1.03	1.98	2.64	0.00	0.40	1.69	4.81	5.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.96	0.01	0.49	0.42	0.43	0.34	0.00	0.26	0.62	0.86	0.87
d, Delay for Lane Group [s/veh]	31.20	37.47	13.75	30.90	16.51	17.47	32.58	19.80	21.38	29.07	26.64	27.35
Lane Group LOS	C	D	B	C	B	B	C	B	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.70	9.62	0.03	0.99	2.55	2.83	0.41	0.01	1.10	1.73	5.72	5.82
50th-Percentile Queue Length [ft/ln]	17.49	240.62	0.64	24.78	63.79	70.70	10.37	0.28	27.41	43.19	143.11	145.38
95th-Percentile Queue Length [veh/ln]	1.26	14.71	0.05	1.78	4.59	5.09	0.75	0.02	1.97	3.11	9.65	9.77
95th-Percentile Queue Length [ft/ln]	31.48	367.82	1.15	44.60	114.83	127.26	18.66	0.51	49.34	77.75	241.20	244.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.20	37.47	13.75	30.90	16.82	17.47	32.58	19.80	21.38	29.07	26.64	27.01
Movement LOS	C	D	B	C	B	B	C	B	C	C	C	C
d_A, Approach Delay [s/veh]	37.17			17.92			23.78			27.47		
Approach LOS	D			B			C			C		
d_I, Intersection Delay [s/veh]	28.37											
Intersection LOS	C											
Intersection V/C	0.841											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.282	2.167	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	438	531
d_b, Bicycle Delay [s]	17.26	17.26	19.53	17.26
l_b,int, Bicycle LOS Score for Intersection	2.576	2.054	1.751	3.241
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.422

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	477	0	0	65	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	978	4	2	66	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	264	1	1	18	1	2
Total Analysis Volume [veh/h]	1057	4	2	71	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	36	1	41
g / C, Green / Cycle	0.35	0.35	0.48	0.01	0.54
(v / s)_i Volume / Saturation Flow Rate	0.31	0.00	0.05	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1596	1781	3560
c, Capacity [veh/h]	1211	557	765	19	1934
d1, Uniform Delay [s]	22.84	15.90	10.67	36.85	7.85
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.12	0.01	0.25	6.91	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.01	0.10	0.26	0.01
d, Delay for Lane Group [s/veh]	24.96	15.90	10.92	43.76	7.86
Lane Group LOS	C	B	B	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	8.48	0.04	0.66	0.13	0.03
50th-Percentile Queue Length [ft/ln]	212.00	1.09	16.52	3.15	0.86
95th-Percentile Queue Length [veh/ln]	13.26	0.08	1.19	0.23	0.06
95th-Percentile Queue Length [ft/ln]	331.39	1.96	29.74	5.67	1.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.96	15.90	10.92	10.92	43.76	7.86
Movement LOS	C	B	B	B	D	A
d_A, Approach Delay [s/veh]	24.93		10.92		19.83	
Approach LOS	C		B		B	
d_I, Intersection Delay [s/veh]	23.97					
Intersection LOS	C					
Intersection V/C	0.422					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.50	37.50	37.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.253	4.145
Bicycle LOS	D	E	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	430	0	0	0	0	224
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	638	11	10	68	56	321
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	190	3	3	20	17	96
Total Analysis Volume [veh/h]	760	13	12	81	67	383
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	63
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	63	63	63	63	63	63
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	18	1	38	32	54
g / C, Green / Cycle	0.28	0.28	0.02	0.60	0.51	0.85
(v / s)_i Volume / Saturation Flow Rate	0.22	0.01	0.01	0.04	0.04	0.24
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	962	442	41	1113	951	1351
d1, Uniform Delay [s]	21.09	16.59	30.34	5.41	7.90	0.93
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.50	0.03	3.86	0.13	0.14	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.03	0.29	0.07	0.07	0.28
d, Delay for Lane Group [s/veh]	22.58	16.62	34.20	5.54	8.05	1.05
Lane Group LOS	C	B	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.96	0.13	0.22	0.39	0.43	0.04
50th-Percentile Queue Length [ft/ln]	124.03	3.29	5.41	9.87	10.84	1.07
95th-Percentile Queue Length [veh/ln]	8.61	0.24	0.39	0.71	0.78	0.08
95th-Percentile Queue Length [ft/ln]	215.35	5.91	9.73	17.76	19.52	1.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.58	16.62	34.20	5.54	8.05	1.05
Movement LOS	C	B	C	A	A	A
d_A, Approach Delay [s/veh]	22.48		9.23		2.09	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	14.57					
Intersection LOS	B					
Intersection V/C	0.485					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.46	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.396	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.50	31.50	31.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.286	4.875
Bicycle LOS	D	E	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	0	0	27	224	430	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	918	16	148	410	336	590	17	98	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	235	4	38	105	86	151	4	25	2	2	3
Total Analysis Volume [veh/h]	48	940	16	151	420	344	604	17	100	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	72
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	12	22	0	18	27	27	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	72	72	72	72	72	72	72	72	72	72	72
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	8	36	36	14	15	23	1	2
g / C, Green / Cycle	0.06	0.45	0.45	0.11	0.49	0.49	0.19	0.21	0.32	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.08	0.12	0.22	0.17	0.01	0.06	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1854	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	110	1591	828	191	1752	782	673	387	515	32	50
d1, Uniform Delay [s]	32.67	13.43	13.43	31.46	10.57	11.90	28.39	22.94	17.61	35.02	34.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.68	0.74	1.41	7.15	0.32	1.80	4.59	0.05	0.18	4.75	3.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.40	0.40	0.79	0.24	0.44	0.90	0.04	0.19	0.28	0.34
d, Delay for Lane Group [s/veh]	35.35	14.16	14.84	38.61	10.89	13.69	32.98	22.99	17.79	39.77	38.25
Lane Group LOS	D	B	B	D	B	B	C	C	B	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.81	2.85	3.12	2.67	1.54	3.08	5.28	0.23	1.17	0.19	0.34
50th-Percentile Queue Length [ft/ln]	20.30	71.16	78.08	66.75	38.43	76.98	131.96	5.70	29.13	4.85	8.48
95th-Percentile Queue Length [veh/ln]	1.46	5.12	5.62	4.81	2.77	5.54	9.05	0.41	2.10	0.35	0.61
95th-Percentile Queue Length [ft/ln]	36.53	128.10	140.54	120.15	69.18	138.57	226.16	10.27	52.44	8.73	15.26

Movement, Approach, & Intersection Results

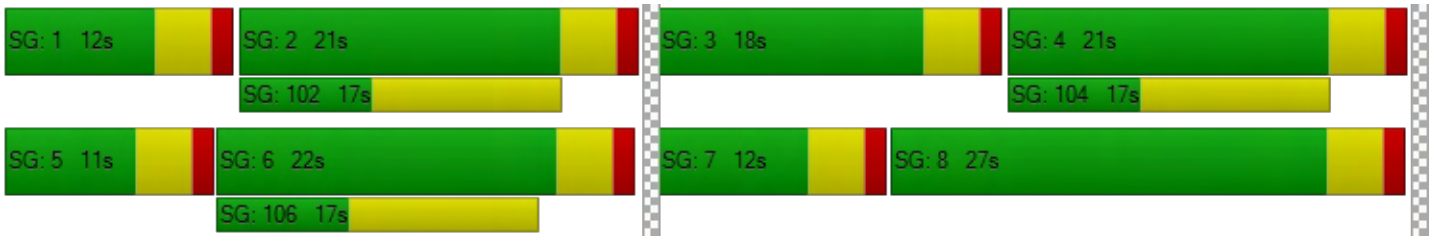
d_M, Delay for Movement [s/veh]	35.35	14.39	14.84	38.61	10.89	13.69	32.98	22.99	17.79	39.77	38.25	38.25
Movement LOS	D	B	B	D	B	B	C	C	B	D	D	D
d_A, Approach Delay [s/veh]	15.40			16.52			30.64			38.77		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	20.13											
Intersection LOS	C											
Intersection V/C	0.573											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	25.84	25.84	25.84
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.212	2.622	1.996
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	472	500	639	472
d_b, Bicycle Delay [s]	21.01	20.25	16.67	21.01
l_b,int, Bicycle LOS Score for Intersection	2.112	2.314	2.749	1.603
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.067

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	45	22	5	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	844	513	30	26	27
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	221	134	8	7	7
Total Analysis Volume [veh/h]	46	885	538	31	27	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.07	0.04
d_M, Delay for Movement [s/veh]	8.78	0.00	0.00	0.00	14.70	10.74
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.35	0.35
95th-Percentile Queue Length [ft/ln]	3.61	0.00	0.00	0.00	8.75	8.75
d_A, Approach Delay [s/veh]	0.43		0.00		12.68	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.71					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.548

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	6	16	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	676	26	112	436	51	69	58	24	23	79	220
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	183	7	30	118	14	19	16	6	6	21	59
Total Analysis Volume [veh/h]	49	731	28	121	471	55	75	63	26	25	85	238
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	71
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	26	0	13	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	71	71	71	71	71	71	71	71	71	71	71	71
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	32	32	23	16	16	23	13	13
g / C, Green / Cycle	0.57	0.42	0.42	0.57	0.45	0.45	0.32	0.22	0.22	0.32	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.20	0.20	0.13	0.14	0.14	0.05	0.03	0.02	0.02	0.05	0.15
s, saturation flow rate [veh/h]	1021	1870	1846	931	1870	1802	1469	1870	1589	1434	1870	1589
c, Capacity [veh/h]	646	790	780	571	843	812	570	414	352	574	344	292
d1, Uniform Delay [s]	7.15	14.92	14.92	8.13	12.55	12.56	17.35	22.36	21.96	16.83	24.87	27.91
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	2.11	2.14	0.18	0.99	1.03	0.10	0.17	0.09	0.03	0.37	5.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.48	0.48	0.21	0.32	0.32	0.13	0.15	0.07	0.04	0.25	0.81
d, Delay for Lane Group [s/veh]	7.38	17.03	17.06	8.31	13.54	13.59	17.46	22.53	22.05	16.87	25.24	33.41
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.29	4.21	4.16	0.67	2.49	2.42	0.87	0.85	0.35	0.25	1.14	3.90
50th-Percentile Queue Length [ft/ln]	7.21	105.19	104.03	16.65	62.30	60.54	21.64	21.25	8.63	6.28	28.38	97.56
95th-Percentile Queue Length [veh/ln]	0.52	7.57	7.49	1.20	4.49	4.36	1.56	1.53	0.62	0.45	2.04	7.02
95th-Percentile Queue Length [ft/ln]	12.97	189.29	187.25	29.98	112.13	108.98	38.96	38.25	15.54	11.31	51.08	175.61

Movement, Approach, & Intersection Results

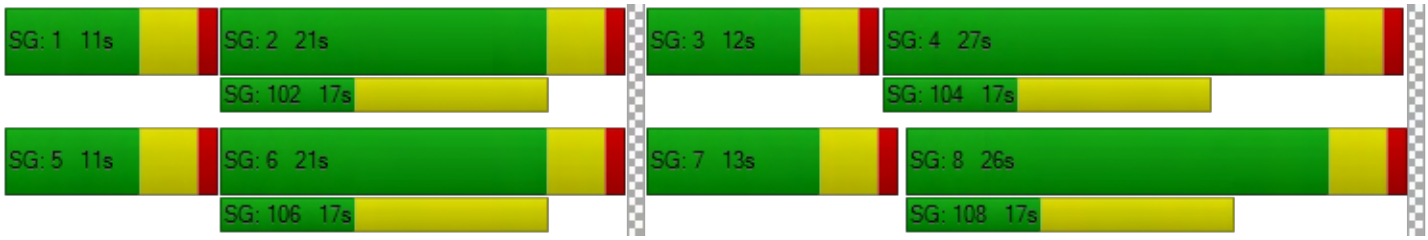
d_M, Delay for Movement [s/veh]	7.38	17.04	17.06	8.31	13.56	13.59	17.46	22.53	22.05	16.87	25.24	33.41
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	16.46			12.58			20.13			30.22		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.92											
Intersection LOS	B											
Intersection V/C	0.548											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	25.35	25.35	25.35	25.35
l_p,int, Pedestrian LOS Score for Intersection	2.685	2.804	2.223	2.423
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	479	479	620	648
d_b, Bicycle Delay [s]	20.54	20.54	16.91	16.23
l_b,int, Bicycle LOS Score for Intersection	2.226	2.093	1.830	2.134
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	0	6	10	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	628	18	95	377	20	40	136	20	15	231	114
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	165	5	25	99	5	10	36	5	4	61	30
Total Analysis Volume [veh/h]	58	658	19	100	395	21	42	143	21	16	242	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	29	29	39	31	31	17	11	11	17	9	9
g / C, Green / Cycle	0.61	0.46	0.46	0.61	0.48	0.48	0.26	0.17	0.17	0.26	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.05	0.18	0.18	0.10	0.11	0.11	0.03	0.04	0.05	0.01	0.10	0.10
s, saturation flow rate [veh/h]	1108	1870	1852	969	1870	1837	1281	1870	1788	1349	1870	1669
c, Capacity [veh/h]	773	850	842	660	888	872	408	326	311	481	268	239
d1, Uniform Delay [s]	5.24	11.68	11.68	5.81	9.98	9.99	18.07	22.94	22.97	17.53	26.20	26.32
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	1.40	1.42	0.11	0.62	0.64	0.11	0.41	0.44	0.03	3.26	4.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.40	0.40	0.15	0.24	0.24	0.10	0.25	0.26	0.03	0.70	0.73
d, Delay for Lane Group [s/veh]	5.43	13.08	13.10	5.91	10.61	10.62	18.18	23.35	23.41	17.56	29.46	30.50
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.24	2.87	2.85	0.38	1.51	1.49	0.42	1.00	0.99	0.16	2.68	2.55
50th-Percentile Queue Length [ft/ln]	6.05	71.77	71.20	9.38	37.74	37.31	10.58	25.07	24.72	3.95	66.92	63.78
95th-Percentile Queue Length [veh/ln]	0.44	5.17	5.13	0.68	2.72	2.69	0.76	1.80	1.78	0.28	4.82	4.59
95th-Percentile Queue Length [ft/ln]	10.89	129.19	128.16	16.89	67.94	67.16	19.04	45.12	44.50	7.10	120.45	114.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.43	13.09	13.10	5.91	10.61	10.62	18.18	23.37	23.41	17.56	29.70	30.50
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	12.48			9.70			22.32			29.44		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	16.29											
Intersection LOS	B											
Intersection V/C	0.446											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.682	0.000	2.537
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.166	1.985	1.730	1.871
Bicycle LOS	B	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.699

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	18	0	0	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	3	128	1	145	231	259	0	1	226	151
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	35	0	40	63	71	0	0	62	41
Total Analysis Volume [veh/h]	0	1	3	141	1	159	254	285	0	1	248	166
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	524	590	537	581	524	592
Degree of Utilization, x	0.01	0.51	0.47	0.49	0.00	0.70

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.02	2.90	2.51	2.69	0.01	5.57
95th-Percentile Queue Length [ft]	0.58	72.46	62.86	67.29	0.14	139.35
Approach Delay [s/veh]	9.91	15.31	14.98		21.64	
Approach LOS	A	C	B		C	
Intersection Delay [s/veh]	17.24					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	81.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	142	810	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	142	810	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	37	213	0	0	0
Total Analysis Volume [veh/h]	0	149	853	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.14	0.53	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	81.13	8.85	9.65	0.00	0.00	0.00
Movement LOS	F	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.48	0.48	2.91	2.91	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.89	11.89	72.64	72.64	0.00	0.00
d_A, Approach Delay [s/veh]	8.85		9.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	9.53					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	108	53	0	281	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	861	53	0	721	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	227	14	0	190	0	1
Total Analysis Volume [veh/h]	906	56	0	759	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	16.31
Movement LOS	A	A		A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.94
d_A, Approach Delay [s/veh]	0.00		0.00		16.31	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	153	0	43	238	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	906	0	43	678	0	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	238	0	11	178	0	2
Total Analysis Volume [veh/h]	954	0	45	714	0	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.01	0.00	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	10.33	0.00	0.00	16.77
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.19	0.19	0.00	0.08
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.75	4.75	0.00	1.96
d_A, Approach Delay [s/veh]	0.00		0.61		16.77	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	C					

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Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\SAT EP Amphitheater.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.384	11.8	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	0.610	15.6	C
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.020	11.2	B
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.012	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	0.692	45.2	E
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	6.217	2,410.0	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.641	19.1	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.456	26.0	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.564	17.7	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.695	17.0	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.043	12.1	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.304	14.3	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.286	16.6	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.423	11.4	B
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	25.0	C
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.008	12.1	B
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.091	12.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	23	0	2	0	0	0	0	7	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	162	70	26	151	26	12	80	24	62	104	35
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	45	20	7	42	7	3	22	7	17	29	10
Total Analysis Volume [veh/h]	19	181	78	29	169	29	13	89	27	69	116	39
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	596	681	597	559	634	583
Degree of Utilization, x	0.34	0.11	0.38	0.18	0.04	0.38

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.47	0.39	1.77	0.66	0.13	1.80
95th-Percentile Queue Length [ft]	36.79	9.65	44.37	16.58	3.33	44.96
Approach Delay [s/veh]	10.89		12.70	10.18		12.97
Approach LOS	B		B	B		B
Intersection Delay [s/veh]	11.80					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.610

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	26	36	0	9	0	0	0	6	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	237	204	21	225	3	4	58	27	205	84	19
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	63	54	6	59	1	1	15	7	54	22	5
Total Analysis Volume [veh/h]	17	251	216	22	238	3	4	61	29	217	89	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	549	618	531	597	483	537	502	590
Degree of Utilization, x	0.49	0.35	0.49	0.01	0.13	0.05	0.61	0.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.66	1.56	2.67	0.02	0.46	0.17	4.02	0.11
95th-Percentile Queue Length [ft]	66.57	39.04	66.70	0.38	11.55	4.27	100.58	2.63
Approach Delay [s/veh]	13.69		15.73		10.84		19.73	
Approach LOS	B		C		B		C	
Intersection Delay [s/veh]	15.61							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	59	5	8	19	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	447	5	8	450	0	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	118	1	2	118	0	3
Total Analysis Volume [veh/h]	471	5	8	474	0	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.34	0.00	0.00	11.20
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.00	0.00	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.56	0.00	0.00	1.55
d_A, Approach Delay [s/veh]	0.00		0.14		11.20	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.21					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	0	13	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	0	3	0	0
Total Analysis Volume [veh/h]	12	0	0	14	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	45.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	54	83	11	8	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	442	83	11	439	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	22	3	116	46	3
Total Analysis Volume [veh/h]	465	87	12	462	185	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.69	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.58	0.00	45.23	38.14
Movement LOS	A	A	A	A	E	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.03	4.94	4.94
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.82	0.82	123.60	123.60
d_A, Approach Delay [s/veh]	0.00		0.22		44.83	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	7.27					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	2,410.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	6.217

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	156	153	0	176	0	0	0	0	860	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	515	171	1	599	5	11	0	10	861	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	131	44	0	153	1	3	0	3	219	0	1
Total Analysis Volume [veh/h]	18	525	174	1	611	5	11	0	10	878	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

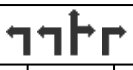
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.08	0.00	0.02	6.22	0.00	0.00
d_M, Delay for Movement [s/veh]	8.81	0.00	0.00	9.02	0.00	0.00	31.90	31.23	14.10	2409.99	2406.25	2391.80
Movement LOS	A	A	A	A	A	A	D	D	B	F	F	F
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32	95.76	95.76	95.76
95th-Percentile Queue Length [ft/ln]	1.43	0.00	0.00	0.08	0.08	0.08	7.96	7.96	7.96	2394.11	2394.11	2394.11
d_A, Approach Delay [s/veh]	0.22			0.01			23.42			2409.95		
Approach LOS	A			A			C			F		
d_I, Intersection Delay [s/veh]	949.18											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	145	0	408	628	0	0	0	0	0	0	164
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	421	9	414	1027	11	21	4	51	137	19	265
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	113	2	111	275	3	6	1	14	37	5	71
Total Analysis Volume [veh/h]	17	452	10	444	1102	12	23	4	55	147	20	284
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	22	22	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	20	20	18	36	36	2	5	5	7	9	9
g / C, Green / Cycle	0.03	0.31	0.31	0.27	0.55	0.55	0.04	0.07	0.07	0.10	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.01	0.25	0.21	0.21	0.01	0.00	0.03	0.04	0.09	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1860	1781	1870	1589	3459	1621	1589
c, Capacity [veh/h]	55	1089	486	489	1957	1022	69	136	116	351	220	215
d1, Uniform Delay [s]	30.96	18.02	15.83	22.87	8.33	8.33	30.54	28.12	29.06	27.51	26.95	26.95
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.17	1.17	0.08	7.09	0.55	1.05	2.76	0.09	3.00	0.79	3.99	4.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.42	0.02	0.91	0.37	0.37	0.33	0.03	0.48	0.42	0.70	0.70
d, Delay for Lane Group [s/veh]	34.13	19.18	15.91	29.97	8.88	9.38	33.30	28.21	32.07	28.31	30.94	31.02
Lane Group LOS	C	B	B	C	A	A	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.28	2.38	0.10	6.36	2.03	2.26	0.39	0.06	0.89	1.07	2.41	2.37
50th-Percentile Queue Length [ft/ln]	7.01	59.46	2.40	158.89	50.76	56.57	9.79	1.48	22.23	26.65	60.22	59.16
95th-Percentile Queue Length [veh/ln]	0.50	4.28	0.17	10.49	3.65	4.07	0.70	0.11	1.60	1.92	4.34	4.26
95th-Percentile Queue Length [ft/ln]	12.62	107.03	4.32	262.25	91.36	101.82	17.62	2.66	40.01	47.98	108.39	106.49

Movement, Approach, & Intersection Results

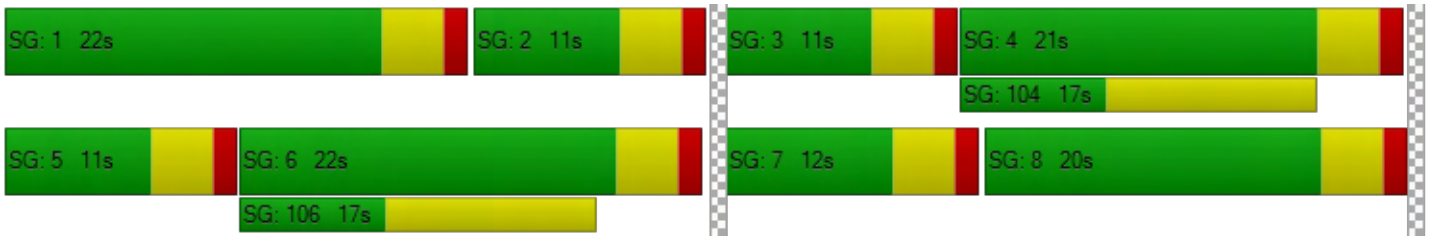
d_M, Delay for Movement [s/veh]	34.13	19.18	15.91	29.97	9.04	9.38	33.30	28.21	32.07	28.31	30.94	30.98
Movement LOS	C	B	B	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.65			15.01			32.22			30.11		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.07											
Intersection LOS	B											
Intersection V/C	0.641											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	22.43	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.125	2.145	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	215	554	492	523
d_b, Bicycle Delay [s]	25.88	16.99	18.47	17.72
l_b,int, Bicycle LOS Score for Intersection	1.955	2.417	1.695	2.304
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	164	0	0	408	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	423	2	5	409	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	112	1	1	108	0	3
Total Analysis Volume [veh/h]	447	2	5	432	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	104
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	104	104	104	104	104
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	76	0	80
g / C, Green / Cycle	0.16	0.16	0.73	0.00	0.77
(v / s)_i Volume / Saturation Flow Rate	0.13	0.00	0.27	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1592	1781	3560
c, Capacity [veh/h]	542	249	1157	2	2729
d1, Uniform Delay [s]	42.48	37.03	5.35	0.00	2.84
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.26	0.01	0.94	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.01	0.38	0.00	0.00
d, Delay for Lane Group [s/veh]	45.74	37.05	6.29	0.00	2.85
Lane Group LOS	D	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.76	0.04	3.31	0.00	0.02
50th-Percentile Queue Length [ft/ln]	143.98	1.10	82.65	0.00	0.56
95th-Percentile Queue Length [veh/ln]	9.69	0.08	5.95	0.00	0.04
95th-Percentile Queue Length [ft/ln]	242.37	1.98	148.77	0.00	1.00

Movement, Approach, & Intersection Results

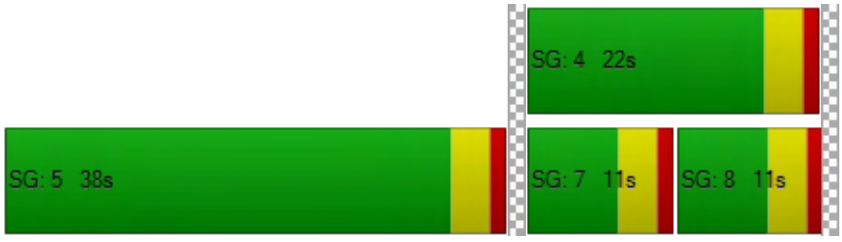
d_M, Delay for Movement [s/veh]	45.74	37.05	6.29	6.29	0.00	2.85
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	45.70		6.29		2.85	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	25.97					
Intersection LOS	C					
Intersection V/C	0.456					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.00	52.00	52.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.853	4.141
Bicycle LOS	D	E	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	124	0	0	0	0	520
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	324	8	12	31	33	607
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	91	2	3	9	9	170
Total Analysis Volume [veh/h]	362	9	13	35	37	678
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	82
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	13	0	26	47	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	82	82	82	82	82	82
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	9	9	2	65	59	72
g / C, Green / Cycle	0.11	0.11	0.02	0.79	0.72	0.88
(v / s)_i Volume / Saturation Flow Rate	0.10	0.01	0.01	0.02	0.02	0.43
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	383	176	41	1481	1346	1398
d1, Uniform Delay [s]	36.25	32.64	39.44	1.81	3.29	1.04
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.93	0.12	4.22	0.03	0.04	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.05	0.31	0.02	0.03	0.49
d, Delay for Lane Group [s/veh]	48.18	32.76	43.66	1.84	3.32	2.25
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.15	0.16	0.30	0.08	0.15	0.47
50th-Percentile Queue Length [ft/ln]	103.76	4.08	7.56	1.95	3.63	11.72
95th-Percentile Queue Length [veh/ln]	7.47	0.29	0.54	0.14	0.26	0.84
95th-Percentile Queue Length [ft/ln]	186.76	7.35	13.62	3.51	6.54	21.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.18	32.76	43.66	1.84	3.32	2.25
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	47.81		13.17		2.31	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	17.65					
Intersection LOS	B					
Intersection V/C	0.564					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	30.74	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.385	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	41.00	41.00	41.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.212	5.312
Bicycle LOS	D	D	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.695

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	21	0	0	58	520	124	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	369	20	115	368	605	252	11	93	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	99	5	31	98	162	67	3	25	2	2	3
Total Analysis Volume [veh/h]	47	394	21	123	393	646	269	12	99	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	20	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	6	35	35	7	8	16	1	2
g / C, Green / Cycle	0.06	0.51	0.51	0.10	0.55	0.55	0.11	0.13	0.26	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.08	0.08	0.07	0.11	0.41	0.08	0.01	0.06	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1822	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	115	1813	928	176	1935	864	379	243	408	23	56
d1, Uniform Delay [s]	28.90	8.39	8.40	28.03	7.53	11.28	27.63	24.48	18.94	31.41	30.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	0.18	0.35	4.93	0.24	5.87	2.47	0.08	0.31	5.66	3.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.15	0.15	0.70	0.20	0.75	0.71	0.05	0.24	0.26	0.34
d, Delay for Lane Group [s/veh]	31.23	8.57	8.75	32.97	7.76	17.15	30.10	24.57	19.25	37.07	33.88
Lane Group LOS	C	A	A	C	A	B	C	C	B	D	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.69	0.74	0.81	1.83	0.96	5.84	2.02	0.16	1.13	0.13	0.33
50th-Percentile Queue Length [ft/ln]	17.15	18.48	20.26	45.84	24.08	146.03	50.61	3.95	28.28	3.13	8.27
95th-Percentile Queue Length [veh/ln]	1.23	1.33	1.46	3.30	1.73	9.80	3.64	0.28	2.04	0.23	0.60
95th-Percentile Queue Length [ft/ln]	30.87	33.26	36.47	82.50	43.34	245.12	91.10	7.11	50.91	5.64	14.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.23	8.62	8.75	32.97	7.76	17.15	30.10	24.57	19.25	37.07	33.88	33.88
Movement LOS	C	A	A	C	A	B	C	C	B	D	C	C
d_A, Approach Delay [s/veh]	10.93			15.65			27.10			34.65		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.95											
Intersection LOS	B											
Intersection V/C	0.695											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.044	2.609	1.980
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	1.814	2.518	2.187	1.601
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	17	47	11	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	402	448	23	23	16
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	102	114	6	6	4
Total Analysis Volume [veh/h]	16	410	457	23	23	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.04	0.02
d_M, Delay for Movement [s/veh]	8.39	0.00	0.00	0.00	12.14	10.05
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	1.13	0.00	0.00	0.00	5.09	5.09
d_A, Approach Delay [s/veh]	0.32		0.00		11.28	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.61					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.304

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	0	12	35	0	0	0	0	0	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	333	17	121	375	55	49	64	33	24	74	118
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	87	4	31	98	14	13	17	9	6	19	31
Total Analysis Volume [veh/h]	36	347	18	126	390	57	51	67	34	25	77	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	69
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	69	69	69	69	69	69	69	69	69	69	69	69
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	45	35	35	45	38	38	16	9	9	16	7	7
g / C, Green / Cycle	0.65	0.50	0.50	0.65	0.54	0.54	0.23	0.13	0.13	0.23	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.10	0.11	0.12	0.12	0.03	0.04	0.02	0.02	0.04	0.08
s, saturation flow rate [veh/h]	1048	1870	1838	1160	1870	1788	1508	1870	1589	1468	1870	1589
c, Capacity [veh/h]	771	937	921	851	1014	969	459	250	212	457	203	173
d1, Uniform Delay [s]	4.45	9.57	9.57	4.64	8.27	8.28	21.07	26.97	26.57	20.75	28.69	29.81
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.47	0.48	0.08	0.51	0.54	0.11	0.57	0.35	0.05	1.16	5.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.20	0.20	0.15	0.22	0.23	0.11	0.27	0.16	0.05	0.38	0.71
d, Delay for Lane Group [s/veh]	4.57	10.03	10.05	4.72	8.78	8.82	21.18	27.54	26.92	20.80	29.84	35.13
Lane Group LOS	A	B	B	A	A	A	C	C	C	C	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	1.34	1.33	0.44	1.49	1.44	0.65	1.01	0.51	0.28	1.14	2.03
50th-Percentile Queue Length [ft/ln]	3.44	33.48	33.17	10.91	37.22	36.06	16.25	25.30	12.67	7.12	28.41	50.83
95th-Percentile Queue Length [veh/ln]	0.25	2.41	2.39	0.79	2.68	2.60	1.17	1.82	0.91	0.51	2.05	3.66
95th-Percentile Queue Length [ft/ln]	6.20	60.26	59.71	19.65	67.00	64.91	29.24	45.55	22.81	12.82	51.13	91.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.57	10.04	10.05	4.72	8.80	8.82	21.18	27.54	26.92	20.80	29.84	35.13
Movement LOS	A	B	B	A	A	A	C	C	C	C	C	D
d_A, Approach Delay [s/veh]	9.55			7.91			25.27			31.73		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	14.32											
Intersection LOS	B											
Intersection V/C	0.304											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.38	24.38	24.38	24.38
l_p,int, Pedestrian LOS Score for Intersection	2.540	2.615	2.211	2.389
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	493	493	493	493
d_b, Bicycle Delay [s]	19.59	19.59	19.59	19.59
l_b,int, Bicycle LOS Score for Intersection	1.890	2.032	1.810	1.931
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.286

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	0	12	23	0	0	0	0	0	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	304	27	83	354	34	29	137	40	33	172	75
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	81	7	22	94	9	8	36	11	9	46	20
Total Analysis Volume [veh/h]	70	323	29	88	377	36	31	146	43	35	183	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	47	37	37	47	38	38	15	7	7	15	8	8
g / C, Green / Cycle	0.67	0.53	0.53	0.67	0.54	0.54	0.21	0.11	0.11	0.21	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.06	0.10	0.10	0.08	0.11	0.11	0.02	0.05	0.05	0.02	0.07	0.08
s, saturation flow rate [veh/h]	1099	1870	1817	1155	1870	1814	1351	1870	1729	1413	1870	1684
c, Capacity [veh/h]	827	992	964	870	1006	976	365	199	184	400	206	186
d1, Uniform Delay [s]	4.11	8.55	8.56	4.11	8.44	8.44	22.22	29.57	29.65	22.18	29.97	30.08
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.40	0.41	0.05	0.47	0.49	0.10	1.81	2.14	0.09	3.49	4.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.18	0.18	0.10	0.21	0.21	0.08	0.48	0.51	0.09	0.65	0.69
d, Delay for Lane Group [s/veh]	4.31	8.94	8.97	4.16	8.90	8.93	22.32	31.39	31.80	22.27	33.46	34.54
Lane Group LOS	A	A	A	A	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.25	1.20	1.18	0.27	1.40	1.37	0.38	1.50	1.47	0.43	2.21	2.14
50th-Percentile Queue Length [ft/ln]	6.28	29.91	29.43	6.81	34.97	34.29	9.53	37.57	36.78	10.76	55.19	53.41
95th-Percentile Queue Length [veh/ln]	0.45	2.15	2.12	0.49	2.52	2.47	0.69	2.70	2.65	0.77	3.97	3.85
95th-Percentile Queue Length [ft/ln]	11.30	53.83	52.98	12.25	62.94	61.72	17.15	67.62	66.20	19.36	99.33	96.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.31	8.95	8.97	4.16	8.92	8.93	22.32	31.53	31.80	22.27	33.74	34.54
Movement LOS	A	A	A	A	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.19			8.08			30.28			32.61		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	16.57											
Intersection LOS	B											
Intersection V/C	0.286											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	24.86	0.00	24.86
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.566	0.000	2.520
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	457	486
d_b, Bicycle Delay [s]	20.06	20.06	20.83	20.06
l_b,int, Bicycle LOS Score for Intersection	1.908	1.973	1.741	1.805
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.423

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	36	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	83	1	135	101	209	0	1	190	56
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	23	0	38	28	59	0	0	53	16
Total Analysis Volume [veh/h]	0	0	0	93	1	151	113	234	0	1	213	63
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	599	691	592	647	582	653
Degree of Utilization, x	0.00	0.35	0.19	0.36	0.00	0.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.00	1.60	0.70	1.65	0.01	2.10
95th-Percentile Queue Length [ft]	0.00	40.02	17.48	41.26	0.13	52.57
Approach Delay [s/veh]	0.00	11.04	11.01		12.18	
Approach LOS	A	B	B		B	
Intersection Delay [s/veh]	11.39					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	860	153	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	860	153	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	40	0	0	0
Total Analysis Volume [veh/h]	0	905	161	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.83	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	24.99	22.36	7.46	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	10.34	10.34	0.31	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	258.40	258.40	7.79	7.79	0.00	0.00
d_A, Approach Delay [s/veh]	22.36		7.46		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	20.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	133	68	0	184	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	521	68	0	615	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	137	18	0	162	0	1
Total Analysis Volume [veh/h]	548	72	0	647	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.09
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.59
d_A, Approach Delay [s/veh]	0.00		0.00		12.09	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.091

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	156	0	8	176	0	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	544	0	8	607	0	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	0	2	160	0	12
Total Analysis Volume [veh/h]	573	0	8	639	0	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.01	0.00	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	8.63	0.00	0.00	12.63
Movement LOS	A	A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.00	0.30
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.60	0.60	0.00	7.43
d_A, Approach Delay [s/veh]	0.00		0.11		12.63	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.52					
Intersection LOS	B					

Coachillin Industrial Park Parcels 30-31

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Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\AM EP Amphitheater MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Left	0.702	16.9	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.626	5.4	A
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.641	3.3	A
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.751	20.9	C
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Right	0.000	8.3	A
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	SB Thru	0.597	1.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	2	3	0	10	0	0	0	11	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	203	127	18	436	17	4	81	63	372	75	19
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	35	5	122	5	1	23	18	104	21	5
Total Analysis Volume [veh/h]	21	226	142	20	486	19	4	90	70	415	84	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	61
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	40	0	0	40	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	61	61	61	61	61	61	61	61	61
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	29	29	29	29
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.12	0.09	0.02	0.27	0.00	0.09	0.34	0.06
s, saturation flow rate [veh/h]	894	1870	1589	1154	1858	1289	1736	1226	1806
c, Capacity [veh/h]	264	743	631	464	738	623	819	572	852
d1, Uniform Delay [s]	21.89	12.63	12.19	15.24	15.24	11.32	9.39	18.30	9.05
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.14	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	1.06	0.82	0.17	5.10	0.00	0.12	2.33	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.30	0.22	0.04	0.68	0.01	0.20	0.73	0.12
d, Delay for Lane Group [s/veh]	22.48	13.68	13.01	15.41	20.35	11.32	9.51	20.63	9.11
Lane Group LOS	C	B	B	B	C	B	A	C	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.26	1.82	1.11	0.18	5.36	0.03	0.89	4.54	0.56
50th-Percentile Queue Length [ft/ln]	6.55	45.41	27.86	4.57	133.96	0.65	22.34	113.39	14.10
95th-Percentile Queue Length [veh/ln]	0.47	3.27	2.01	0.33	9.15	0.05	1.61	8.03	1.02
95th-Percentile Queue Length [ft/ln]	11.80	81.74	50.14	8.22	228.87	1.16	40.22	200.71	25.38

Movement, Approach, & Intersection Results

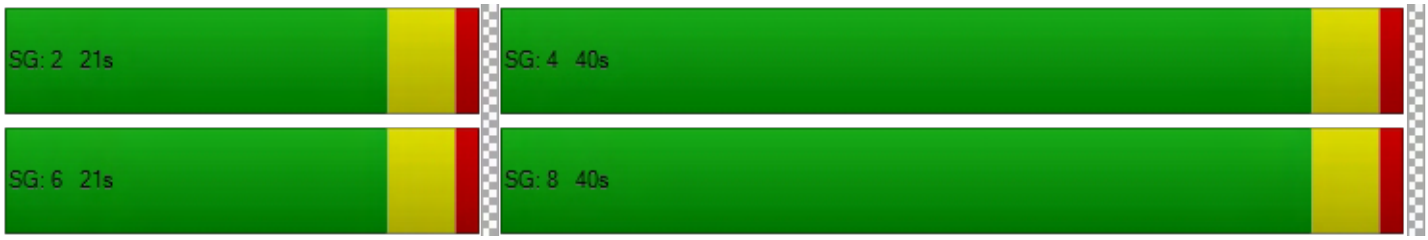
d_M, Delay for Movement [s/veh]	22.48	13.68	13.01	15.41	20.35	20.35	11.32	9.51	9.51	20.63	9.11	9.11
Movement LOS	C	B	B	B	C	C	B	A	A	C	A	A
d_A, Approach Delay [s/veh]	13.91			20.16			9.55			18.30		
Approach LOS	B			C			A			B		
d_I, Intersection Delay [s/veh]	16.94											
Intersection LOS	B											
Intersection V/C	0.702											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	557	557	1180	1180
d_b, Bicycle Delay [s]	15.87	15.87	5.12	5.12
l_b,int, Bicycle LOS Score for Intersection	2.201	2.426	1.830	2.418
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.626

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	168	16	0	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	378	168	16	922	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	44	4	243	18	1
Total Analysis Volume [veh/h]	398	177	17	971	72	3
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	78
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	66	0	0	66	12	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	78	78	78	78
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	64	64	64	6
g / C, Green / Cycle	0.82	0.82	0.82	0.07
(v / s)_i Volume / Saturation Flow Rate	0.32	0.02	0.52	0.04
s, saturation flow rate [veh/h]	1774	838	1870	1772
c, Capacity [veh/h]	1462	683	1541	130
d1, Uniform Delay [s]	1.78	3.45	2.51	34.96
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.80	0.07	1.97	4.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.02	0.63	0.58
d, Delay for Lane Group [s/veh]	2.58	3.52	4.47	38.98
Lane Group LOS	A	A	A	D
Critical Lane Group	No	No	Yes	Yes
50th-Percentile Queue Length [veh/ln]	0.32	0.06	0.84	1.49
50th-Percentile Queue Length [ft/ln]	8.08	1.43	21.04	37.30
95th-Percentile Queue Length [veh/ln]	0.58	0.10	1.51	2.69
95th-Percentile Queue Length [ft/ln]	14.55	2.58	37.87	67.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.58	2.58	3.52	4.47	38.98	38.98
Movement LOS	A	A	A	A	D	D
d_A, Approach Delay [s/veh]	2.58		4.46		38.98	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.38					
Intersection LOS	A					
Intersection V/C	0.626					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	39.00	39.00	39.00
l_b,int, Bicycle LOS Score for Intersection	5.081	5.763	4.256
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	3.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	222	0	0	68	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	578	17	4	973	14	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	162	5	1	272	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	21	647	19	4	1090	16	7	0	7	7	0	6
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	104	0	0	104	0	0	16	0	0	16	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	109	109	109	109	109	3	3	3	3
g / C, Green / Cycle	0.91	0.91	0.91	0.91	0.91	0.02	0.02	0.02	0.02
(v / s)_i Volume / Saturation Flow Rate	0.04	0.35	0.01	0.01	0.59	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	510	1870	1589	784	1865	1410	1589	2735	1589
c, Capacity [veh/h]	445	1704	1448	719	1700	65	35	67	35
d1, Uniform Delay [s]	3.72	0.72	0.48	1.52	1.16	59.82	57.58	59.79	57.55
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.65	0.02	0.01	1.95	0.73	2.73	0.67	2.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.38	0.01	0.01	0.65	0.11	0.20	0.10	0.17
d, Delay for Lane Group [s/veh]	3.92	1.37	0.50	1.53	3.11	60.55	60.32	60.46	59.81
Lane Group LOS	A	A	A	A	A	E	E	E	E
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.14	0.31	0.01	0.01	0.92	0.23	0.24	0.11	0.20
50th-Percentile Queue Length [ft/ln]	3.45	7.63	0.17	0.30	23.01	5.66	5.89	2.82	5.03
95th-Percentile Queue Length [veh/ln]	0.25	0.55	0.01	0.02	1.66	0.41	0.42	0.20	0.36
95th-Percentile Queue Length [ft/ln]	6.21	13.74	0.30	0.55	41.41	10.19	10.60	5.07	9.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	3.92	1.37	0.50	1.53	3.11	3.11	60.55	60.32	60.32	60.46	59.81	59.81
Movement LOS	A	A	A	A	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	1.42			3.11			60.43			60.16		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	3.32											
Intersection LOS	A											
Intersection V/C	0.641											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1667	1667	200	200
d_b, Bicycle Delay [s]	1.67	1.67	48.60	48.60
l_b,int, Bicycle LOS Score for Intersection	2.693	3.391	1.583	1.581
Bicycle LOS	B	C	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.751

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	3	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	238	1	306	130	110	0	0	232	135
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	70	0	90	38	32	0	0	68	40
Total Analysis Volume [veh/h]	0	1	0	279	1	359	152	129	0	0	272	158
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	68
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	27	0	0	27	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	68	68	68	68	68	68
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	28	28	28	28
g / C, Green / Cycle	0.48	0.48	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.00	0.42	0.16	0.07	0.00	0.24
s, saturation flow rate [veh/h]	1870	1529	958	1870	1261	1756
c, Capacity [veh/h]	945	805	288	758	531	712
d1, Uniform Delay [s]	9.31	15.78	26.47	12.91	0.00	15.91
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	7.92	1.49	0.11	0.00	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.79	0.53	0.17	0.00	0.60
d, Delay for Lane Group [s/veh]	9.31	23.70	27.97	13.01	0.00	16.74
Lane Group LOS	A	C	C	B	A	B
Critical Lane Group	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	8.12	2.16	1.02	0.00	4.28
50th-Percentile Queue Length [ft/ln]	0.19	203.03	53.94	25.57	0.00	106.92
95th-Percentile Queue Length [veh/ln]	0.01	12.79	3.88	1.84	0.00	7.67
95th-Percentile Queue Length [ft/ln]	0.34	319.87	97.10	46.03	0.00	191.71

Movement, Approach, & Intersection Results

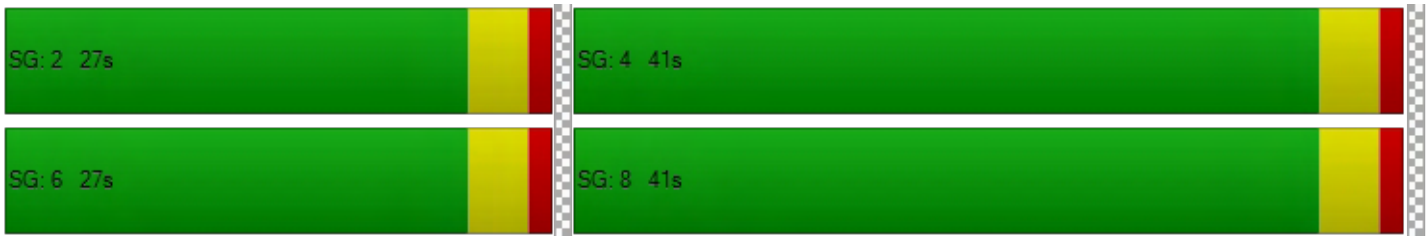
d_M, Delay for Movement [s/veh]	9.31	9.31	9.31	23.70	23.70	23.70	27.97	13.01	13.01	0.00	16.74	16.74
Movement LOS	A	A	A	C	C	C	C	B	B	A	B	B
d_A, Approach Delay [s/veh]	9.31			23.70			21.10			16.74		
Approach LOS	A			C			C			B		
d_I, Intersection Delay [s/veh]	20.93											
Intersection LOS	C											
Intersection V/C	0.751											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	676	676	1088	1088
d_b, Bicycle Delay [s]	14.89	14.89	7.07	7.07
l_b,int, Bicycle LOS Score for Intersection	1.561	2.614	2.023	2.269
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.32	7.22	0.00	0.00	0.00
Movement LOS		A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.32		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.98					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	1.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	222	0	0	68	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	589	0	0	990	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	155	0	0	261	0	0
Total Analysis Volume [veh/h]	620	0	0	1042	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	109	0	0	109	0	11
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	112	112	112	0
g / C, Green / Cycle	0.93	0.93	0.93	0.00
(v / s)_i Volume / Saturation Flow Rate	0.33	0.00	0.56	0.00
s, saturation flow rate [veh/h]	1870	804	1870	1589
c, Capacity [veh/h]	1744	764	1744	1
d1, Uniform Delay [s]	0.41	0.00	0.61	0.00
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	0.00	1.52	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.00	0.60	0.00
d, Delay for Lane Group [s/veh]	0.97	0.00	2.13	0.00
Lane Group LOS	A	A	A	A
Critical Lane Group	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.28	0.00	0.74	0.00
50th-Percentile Queue Length [ft/ln]	6.88	0.00	18.39	0.00
95th-Percentile Queue Length [veh/ln]	0.50	0.00	1.32	0.00
95th-Percentile Queue Length [ft/ln]	12.38	0.00	33.11	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.97	0.97	0.00	2.13	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	0.97		2.13		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.70					
Intersection LOS	A					
Intersection V/C	0.597					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	5.155	5.852	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\PM E MIT.vistro

Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\PM EP Amphitheater MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.476	11.7	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.745	11.4	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.664	7.8	A
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.526	14.4	B
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.526	9.6	A
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	WB Right	0.553	2.1	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	16	18	0	24	0	0	0	7	34	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	432	335	28	244	0	5	85	22	219	93	34
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	111	86	7	63	0	1	22	6	56	24	9
Total Analysis Volume [veh/h]	25	444	345	29	251	0	5	87	23	225	96	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	34	34	34	18	18	18	18
g / C, Green / Cycle	0.56	0.56	0.56	0.56	0.56	0.30	0.30	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.22	0.03	0.13	0.00	0.06	0.18	0.07
s, saturation flow rate [veh/h]	1128	1870	1589	945	1870	1259	1803	1283	1786
c, Capacity [veh/h]	660	1059	900	511	1059	373	542	391	537
d1, Uniform Delay [s]	8.36	7.41	7.22	10.67	6.53	19.22	15.64	22.63	15.85
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.22	1.24	0.21	0.53	0.01	0.18	1.34	0.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.42	0.38	0.06	0.24	0.01	0.20	0.58	0.24
d, Delay for Lane Group [s/veh]	8.46	8.63	8.45	10.88	7.05	19.24	15.82	23.97	16.08
Lane Group LOS	A	A	A	B	A	B	B	C	B
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.14	2.24	1.73	0.20	1.09	0.05	0.92	2.63	1.11
50th-Percentile Queue Length [ft/ln]	3.50	56.03	43.34	5.08	27.30	1.20	23.00	65.74	27.80
95th-Percentile Queue Length [veh/ln]	0.25	4.03	3.12	0.37	1.97	0.09	1.66	4.73	2.00
95th-Percentile Queue Length [ft/ln]	6.29	100.86	78.02	9.14	49.15	2.16	41.40	118.33	50.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.46	8.63	8.45	10.88	7.05	7.05	19.24	15.82	15.82	23.97	16.08	16.08
Movement LOS	A	A	A	B	A	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	8.55			7.45			15.97			21.06		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	11.75											
Intersection LOS	B											
Intersection V/C	0.476											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	500	1233	1233
d_b, Bicycle Delay [s]	16.88	16.88	4.41	4.41
l_b,int, Bicycle LOS Score for Intersection	2.903	2.022	1.749	2.147
Bicycle LOS	C	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.745

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	95	12	43	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	770	95	12	483	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	203	25	3	127	63	4
Total Analysis Volume [veh/h]	811	100	13	508	251	16
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	61
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	49	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	61	61	61	61
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	42	42	42	11
g / C, Green / Cycle	0.68	0.68	0.68	0.19
(v / s)_i Volume / Saturation Flow Rate	0.50	0.02	0.27	0.15
s, saturation flow rate [veh/h]	1834	612	1870	1768
c, Capacity [veh/h]	1249	311	1273	333
d1, Uniform Delay [s]	6.18	14.63	4.27	23.72
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.77	0.25	0.94	4.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.04	0.40	0.80
d, Delay for Lane Group [s/veh]	9.95	14.88	5.21	28.24
Lane Group LOS	A	B	A	C
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.79	0.12	1.29	3.85
50th-Percentile Queue Length [ft/ln]	94.77	3.06	32.20	96.18
95th-Percentile Queue Length [veh/ln]	6.82	0.22	2.32	6.92
95th-Percentile Queue Length [ft/ln]	170.59	5.51	57.97	173.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.95	9.95	14.88	5.21	28.24	28.24
Movement LOS	A	A	B	A	C	C
d_A, Approach Delay [s/veh]	9.95		5.45		28.24	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	11.44					
Intersection LOS	B					
Intersection V/C	0.745					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.50	30.50	30.50
l_b,int, Bicycle LOS Score for Intersection	5.636	4.992	4.573
Bicycle LOS	F	E	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	7.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.664

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	153	810	0	238	0	0	0	0	142	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	896	814	0	675	3	9	0	14	145	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	237	215	0	178	1	2	0	4	38	0	0
Total Analysis Volume [veh/h]	11	947	860	0	714	3	10	0	15	153	0	1
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	61	0	0	61	0	0	19	0	0	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	63	63	63	63	63	9	9	9	9
g / C, Green / Cycle	0.79	0.79	0.79	0.79	0.79	0.11	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.01	0.51	0.54	0.00	0.38	0.01	0.01	0.06	0.00
s, saturation flow rate [veh/h]	734	1870	1589	592	1869	1416	1589	2715	1589
c, Capacity [veh/h]	557	1473	1252	417	1472	209	178	297	178
d1, Uniform Delay [s]	5.38	3.65	3.92	0.00	2.92	33.79	31.83	36.18	31.55
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	2.17	3.08	0.00	1.16	0.09	0.20	1.39	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.64	0.69	0.00	0.49	0.05	0.08	0.52	0.01
d, Delay for Lane Group [s/veh]	5.44	5.82	7.01	0.00	4.08	33.89	32.03	37.56	31.56
Lane Group LOS	A	A	A	A	A	C	C	D	C
Critical Lane Group	No	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.06	2.24	2.40	0.00	1.29	0.18	0.26	1.49	0.02
50th-Percentile Queue Length [ft/ln]	1.39	56.05	59.89	0.00	32.34	4.53	6.62	37.16	0.44
95th-Percentile Queue Length [veh/ln]	0.10	4.04	4.31	0.00	2.33	0.33	0.48	2.68	0.03
95th-Percentile Queue Length [ft/ln]	2.50	100.90	107.80	0.00	58.21	8.16	11.92	66.90	0.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.44	5.82	7.01	0.00	4.08	4.08	33.89	32.03	32.03	37.56	31.56	31.56
Movement LOS	A	A	A	A	A	A	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	6.38			4.08			32.77			37.52		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	7.78											
Intersection LOS	A											
Intersection V/C	0.664											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1425	1425	375	375
d_b, Bicycle Delay [s]	3.31	3.31	26.41	26.41
l_b,int, Bicycle LOS Score for Intersection	4.559	2.743	1.601	1.814
Bicycle LOS	E	B	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	18	0	0	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	3	128	1	145	231	259	0	1	226	151
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	35	0	40	63	71	0	0	62	41
Total Analysis Volume [veh/h]	0	1	3	141	1	159	254	285	0	1	248	166
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	13	0	0	13	0	0	48	0	0	48	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	30	30	30	30
g / C, Green / Cycle	0.39	0.39	0.48	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.00	0.20	0.26	0.15	0.00	0.24
s, saturation flow rate [veh/h]	1651	1528	972	1870	1094	1746
c, Capacity [veh/h]	698	677	410	904	519	845
d1, Uniform Delay [s]	11.66	14.29	20.40	9.75	12.38	10.84
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	2.11	1.53	0.20	0.00	0.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.44	0.62	0.32	0.00	0.49
d, Delay for Lane Group [s/veh]	11.68	16.40	21.93	9.95	12.38	11.28
Lane Group LOS	B	B	C	A	B	B
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.03	2.81	2.92	1.69	0.01	2.75
50th-Percentile Queue Length [ft/ln]	0.84	70.34	72.97	42.17	0.18	68.64
95th-Percentile Queue Length [veh/ln]	0.06	5.06	5.25	3.04	0.01	4.94
95th-Percentile Queue Length [ft/ln]	1.51	126.61	131.35	75.90	0.32	123.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.68	11.68	11.68	16.40	16.40	16.40	21.93	9.95	9.95	12.38	11.28	11.28
Movement LOS	B	B	B	B	B	B	C	A	A	B	B	B
d_A, Approach Delay [s/veh]	11.68			16.40			15.60			11.28		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.35											
Intersection LOS	B											
Intersection V/C	0.526											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	290	290	1419	1419
d_b, Bicycle Delay [s]	22.65	22.65	2.61	2.61
l_b,int, Bicycle LOS Score for Intersection	1.566	2.056	2.449	2.244
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	142	810	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	142	810	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	37	213	0	0	0
Total Analysis Volume [veh/h]	0	149	853	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.14	0.53	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.85	9.65	0.00	0.00	0.00
Movement LOS		A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.48	2.91	2.91	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	11.89	72.64	72.64	0.00	0.00
d_A, Approach Delay [s/veh]	8.85		9.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	9.53					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	2.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.553

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	153	0	43	238	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	906	0	43	678	0	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	238	0	11	178	0	2
Total Analysis Volume [veh/h]	954	0	45	714	0	8
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	118
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	106	0	0	106	0	12
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	118	118	118	118
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	108	108	108	2
g / C, Green / Cycle	0.92	0.92	0.92	0.01
(v / s)_i Volume / Saturation Flow Rate	0.51	0.08	0.38	0.01
s, saturation flow rate [veh/h]	1870	588	1870	1589
c, Capacity [veh/h]	1717	536	1717	22
d1, Uniform Delay [s]	0.81	2.36	0.64	57.59
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.30	0.31	0.74	9.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.08	0.42	0.36
d, Delay for Lane Group [s/veh]	2.11	2.67	1.38	66.95
Lane Group LOS	A	A	A	E
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.62	0.22	0.36	0.29
50th-Percentile Queue Length [ft/ln]	15.53	5.54	8.88	7.37
95th-Percentile Queue Length [veh/ln]	1.12	0.40	0.64	0.53
95th-Percentile Queue Length [ft/ln]	27.96	9.98	15.98	13.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.11	2.11	2.67	1.38	0.00	66.95
Movement LOS	A	A	A	A		E
d_A, Approach Delay [s/veh]	2.11		1.46		66.95	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	2.13					
Intersection LOS	A					
Intersection V/C	0.553					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	59.00	59.00	59.00
l_b,int, Bicycle LOS Score for Intersection	5.707	5.385	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\SAT E MIT.vistro

Scenario 3 Existing (2021) Plus Project With Amphitheater Event

Report File: G:\...\SAT EP Amphitheater MIT.pdf

10/29/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	WB Left	0.348	11.7	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.477	8.2	A
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.752	17.0	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.361	15.8	B
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Right	0.834	22.4	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	WB Right	0.422	3.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.348

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	26	36	0	9	0	0	0	6	12	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	237	204	21	225	3	4	58	27	205	84	19
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	63	54	6	59	1	1	15	7	54	22	5
Total Analysis Volume [veh/h]	17	251	216	22	238	3	4	61	29	217	89	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	61
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	61	61	61	61	61	61	61	61	61
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	17	17	17	17
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.59	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.14	0.02	0.13	0.00	0.05	0.17	0.06
s, saturation flow rate [veh/h]	1139	1870	1589	1128	1866	1284	1769	1306	1811
c, Capacity [veh/h]	692	1099	934	684	1097	366	497	380	509
d1, Uniform Delay [s]	7.61	5.99	6.00	7.73	5.95	19.93	16.62	23.38	16.78
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	0.48	0.58	0.09	0.46	0.01	0.17	1.35	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.23	0.23	0.03	0.22	0.01	0.18	0.57	0.21
d, Delay for Lane Group [s/veh]	7.67	6.47	6.58	7.81	6.41	19.94	16.79	24.73	16.99
Lane Group LOS	A	A	A	A	A	B	B	C	B
Critical Lane Group	No	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.09	1.01	0.90	0.12	0.97	0.04	0.80	2.62	0.97
50th-Percentile Queue Length [ft/ln]	2.21	25.35	22.42	2.91	24.19	1.00	19.90	65.39	24.34
95th-Percentile Queue Length [veh/ln]	0.16	1.83	1.61	0.21	1.74	0.07	1.43	4.71	1.75
95th-Percentile Queue Length [ft/ln]	3.98	45.63	40.36	5.24	43.54	1.79	35.81	117.71	43.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.67	6.47	6.58	7.81	6.41	6.41	19.94	16.79	16.79	24.73	16.99	16.99
Movement LOS	A	A	A	A	A	A	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	6.56			6.53			16.92			22.14		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	11.74											
Intersection LOS	B											
Intersection V/C	0.348											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	230	230	1475	1475
d_b, Bicycle Delay [s]	23.90	23.90	2.10	2.10
l_b,int, Bicycle LOS Score for Intersection	2.358	1.994	1.715	2.098
Bicycle LOS	B	A	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.477

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	54	83	11	8	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	442	83	11	439	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	22	3	116	46	3
Total Analysis Volume [veh/h]	465	87	12	462	185	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	61
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	49	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	61	61	61	61
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	44	44	44	9
g / C, Green / Cycle	0.73	0.73	0.73	0.14
(v / s)_i Volume / Saturation Flow Rate	0.30	0.01	0.25	0.11
s, saturation flow rate [veh/h]	1819	856	1870	1769
c, Capacity [veh/h]	1320	598	1357	254
d1, Uniform Delay [s]	3.30	5.97	3.05	25.19
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.98	0.06	0.68	4.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.02	0.34	0.77
d, Delay for Lane Group [s/veh]	4.28	6.03	3.74	30.16
Lane Group LOS	A	A	A	C
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.85	0.05	0.64	2.92
50th-Percentile Queue Length [ft/ln]	21.20	1.29	15.92	72.96
95th-Percentile Queue Length [veh/ln]	1.53	0.09	1.15	5.25
95th-Percentile Queue Length [ft/ln]	38.16	2.33	28.66	131.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.28	4.28	6.03	3.74	30.16	30.16
Movement LOS	A	A	A	A	C	C
d_A, Approach Delay [s/veh]	4.28		3.79		30.16	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	8.24					
Intersection LOS	A					
Intersection V/C	0.477					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	30.50	30.50	30.50
l_b,int, Bicycle LOS Score for Intersection	5.043	4.915	4.456
Bicycle LOS	F	E	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	156	153	0	176	0	0	0	0	860	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	515	171	1	599	5	11	0	10	861	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	131	44	0	153	1	3	0	3	219	0	1
Total Analysis Volume [veh/h]	18	525	174	1	611	5	11	0	10	878	0	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	21	0	0	21	0	0	39	0	0	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	28	28	28	24	24	24	24
g / C, Green / Cycle	0.47	0.47	0.47	0.47	0.47	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.02	0.28	0.11	0.00	0.33	0.01	0.01	0.32	0.00
s, saturation flow rate [veh/h]	807	1870	1589	877	1867	1415	1589	2728	1589
c, Capacity [veh/h]	271	884	751	330	883	626	627	1087	627
d1, Uniform Delay [s]	20.30	11.61	9.38	17.40	12.46	12.49	11.09	18.46	11.04
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.47	2.93	0.72	0.02	4.56	0.01	0.01	1.48	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.59	0.23	0.00	0.70	0.02	0.02	0.81	0.00
d, Delay for Lane Group [s/veh]	20.78	14.54	10.10	17.41	17.02	12.50	11.10	19.94	11.04
Lane Group LOS	C	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.21	4.22	1.09	0.01	5.52	0.09	0.07	5.32	0.01
50th-Percentile Queue Length [ft/ln]	5.29	105.38	27.15	0.26	137.99	2.21	1.86	132.92	0.37
95th-Percentile Queue Length [veh/ln]	0.38	7.58	1.95	0.02	9.37	0.16	0.13	9.10	0.03
95th-Percentile Queue Length [ft/ln]	9.52	189.55	48.87	0.46	234.31	3.99	3.34	227.45	0.66

Movement, Approach, & Intersection Results

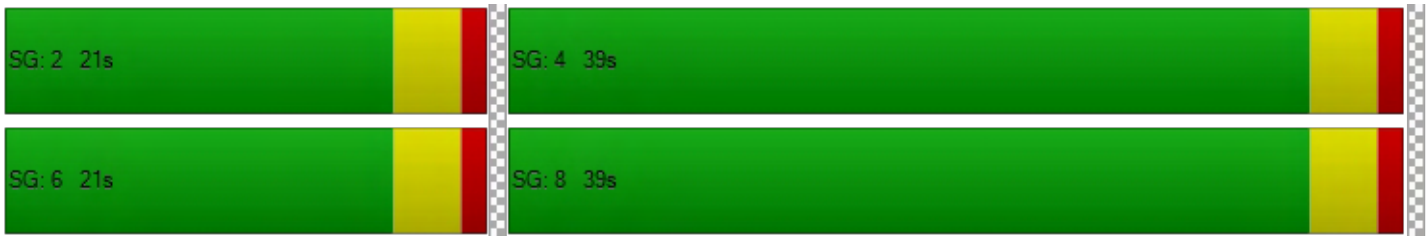
d_M, Delay for Movement [s/veh]	20.78	14.54	10.10	17.41	17.02	17.02	12.50	11.10	11.10	19.94	11.04	11.04
Movement LOS	C	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	13.62			17.02			11.84			19.92		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	17.02											
Intersection LOS	B											
Intersection V/C	0.752											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	567	1167	1167
d_b, Bicycle Delay [s]	15.41	15.41	5.21	5.21
l_b,int, Bicycle LOS Score for Intersection	2.743	2.578	1.594	3.012
Bicycle LOS	B	B	A	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.361

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	36	0	0	12	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	83	1	135	101	209	0	1	190	56
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	23	0	38	28	59	0	0	53	16
Total Analysis Volume [veh/h]	0	0	0	93	1	151	113	234	0	1	213	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	30	0	0	30	0	0	30	0	0	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	18	18	18	18
g / C, Green / Cycle	0.57	0.57	0.30	0.30	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.00	0.16	0.10	0.13	0.00	0.15
s, saturation flow rate [veh/h]	1870	1537	1103	1870	1146	1798
c, Capacity [veh/h]	1121	955	276	560	313	538
d1, Uniform Delay [s]	0.00	6.58	24.64	16.83	20.77	17.39
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.65	0.97	0.50	0.00	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.26	0.41	0.42	0.00	0.51
d, Delay for Lane Group [s/veh]	0.00	7.23	25.61	17.33	20.78	18.15
Lane Group LOS	A	A	C	B	C	B
Critical Lane Group	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.08	1.37	2.13	0.01	2.61
50th-Percentile Queue Length [ft/ln]	0.00	27.11	34.28	53.19	0.26	65.32
95th-Percentile Queue Length [veh/ln]	0.00	1.95	2.47	3.83	0.02	4.70
95th-Percentile Queue Length [ft/ln]	0.00	48.80	61.70	95.74	0.46	117.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.23	7.23	7.23	25.61	17.33	17.33	20.78	18.15	18.15
Movement LOS	A	A	A	A	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	0.00			7.23			20.02			18.16		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	15.82											
Intersection LOS	B											
Intersection V/C	0.361											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	867	867
d_b, Bicycle Delay [s]	9.63	9.63	9.63	9.63
l_b,int, Bicycle LOS Score for Intersection	1.560	1.964	2.132	2.017
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.834

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	860	153	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	860	153	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	40	0	0	0
Total Analysis Volume [veh/h]	0	905	161	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.83	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	22.36	7.46	0.00	0.00	0.00
Movement LOS		C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	10.34	0.31	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	258.40	7.79	7.79	0.00	0.00
d_A, Approach Delay [s/veh]	22.36		7.46		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	20.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	3.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.422

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	156	0	8	176	0	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	544	0	8	607	0	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	0	2	160	0	12
Total Analysis Volume [veh/h]	573	0	8	639	0	47
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	54	0	0	54	0	12
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	54	54	54	4
g / C, Green / Cycle	0.82	0.82	0.82	0.06
(v / s)_i Volume / Saturation Flow Rate	0.31	0.01	0.34	0.03
s, saturation flow rate [veh/h]	1870	839	1870	1589
c, Capacity [veh/h]	1526	693	1526	100
d1, Uniform Delay [s]	1.61	3.09	1.70	29.87
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.71	0.03	0.85	3.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.01	0.42	0.47
d, Delay for Lane Group [s/veh]	2.32	3.12	2.54	33.29
Lane Group LOS	A	A	A	C
Critical Lane Group	No	No	Yes	Yes
50th-Percentile Queue Length [veh/ln]	0.30	0.02	0.36	0.79
50th-Percentile Queue Length [ft/ln]	7.50	0.59	8.98	19.70
95th-Percentile Queue Length [veh/ln]	0.54	0.04	0.65	1.42
95th-Percentile Queue Length [ft/ln]	13.50	1.07	16.16	35.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.32	2.32	3.12	2.54	0.00	33.29
Movement LOS	A	A	A	A		C
d_A, Approach Delay [s/veh]	2.32		2.55		33.29	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.59					
Intersection LOS	A					
Intersection V/C	0.422					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	33.00	33.00	33.00
l_b,int, Bicycle LOS Score for Intersection	5.078	5.200	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Opening Year (2023) Without Project

Coachillin Industrial Park Parcels 30-31

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Report File: G:\...\AM OY.pdf

Scenario 1 Opening Year (2023) Without Project
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.376	93.5	F
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Right	2.339	425.6	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	0.681	552.0	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.574	17.3	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.285	24.9	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.464	16.1	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.614	21.1	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.323	33.7	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.603	16.6	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.509	15.9	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Left	2.359	489.3	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	93.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.376

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	10	10	99	34	0	0	120	21	17	41	32
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	155	109	151	302	31	23	217	56	154	97	54
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	46	33	45	90	9	7	65	17	46	29	16
Total Analysis Volume [veh/h]	14	185	130	181	361	37	28	260	67	184	116	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	406	442	579	413	451	421
Degree of Utilization, x	0.49	0.29	1.38	0.70	0.15	0.87

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.63	1.21	27.62	5.19	0.52	8.72
95th-Percentile Queue Length [ft]	65.63	30.31	690.49	129.76	12.93	218.04
Approach Delay [s/veh]	17.61		207.54	25.96		46.76
Approach LOS	C		F	D		E
Intersection Delay [s/veh]	93.52					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	425.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.339

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	14	811	40	31	0	0	100	6	302	32	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	223	940	59	474	18	4	184	60	676	110	29
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	62	262	16	132	5	1	51	17	188	31	8
Total Analysis Volume [veh/h]	22	249	1048	66	528	20	4	205	67	754	123	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	411	1048	594	446	378	408	877	445
Degree of Utilization, x	0.66	2.34	1.45	0.04	0.55	0.16	2.24	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.60	79.92	30.51	0.14	3.21	0.58	65.63	0.23
95th-Percentile Queue Length [ft]	114.92	1997.92	762.74	3.52	80.36	14.54	1640.74	5.78
Approach Delay [s/veh]	503.79		233.76		20.89		564.47	
Approach LOS	F		F		C		F	
Intersection Delay [s/veh]	425.56							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	552.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	866	0	0	279	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1236	18	4	1220	15	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	346	5	1	342	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	22	1384	20	4	1366	17	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

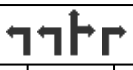
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.01	0.01	0.00	0.68	0.00	0.04	0.68	0.00	0.03
d_M, Delay for Movement [s/veh]	12.60	0.00	0.00	12.46	0.00	0.00	545.58	417.79	215.42	552.01	423.78	222.46
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.02	0.02	0.02	1.98	1.98	1.98	1.91	1.91	1.91
95th-Percentile Queue Length [ft/ln]	3.48	0.00	0.00	0.62	0.62	0.62	49.43	49.43	49.43	47.72	47.72	47.72
d_A, Approach Delay [s/veh]	0.19			0.04			380.50			399.91		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	3.82											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.574

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	549	0	0	279	0	0	0	0	0	0	317
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	843	6	3	1174	18	18	2	70	275	55	419
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	229	2	1	319	5	5	1	19	75	15	114
Total Analysis Volume [veh/h]	22	917	7	3	1277	20	20	2	76	299	60	456
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	11	0	21	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	33	33	0	31	31	2	7	7	8	13	13
g / C, Green / Cycle	0.04	0.51	0.51	0.01	0.48	0.48	0.03	0.11	0.11	0.12	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.26	0.00	0.00	0.24	0.24	0.01	0.00	0.05	0.09	0.16	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1855	1781	1870	1589	3459	1646	1589
c, Capacity [veh/h]	67	1799	803	14	1691	881	62	211	180	434	335	323
d1, Uniform Delay [s]	30.13	10.60	7.90	31.71	11.65	11.65	30.26	25.32	26.56	26.91	24.24	24.31
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	1.04	0.02	7.94	1.08	2.06	2.90	0.02	1.58	1.96	3.94	4.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.51	0.01	0.22	0.50	0.50	0.32	0.01	0.42	0.69	0.78	0.79
d, Delay for Lane Group [s/veh]	32.91	11.64	7.92	39.65	12.73	13.71	33.17	25.34	28.14	28.88	28.19	28.66
Lane Group LOS	C	B	A	D	B	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.34	3.19	0.04	0.07	3.22	3.59	0.34	0.03	1.11	2.20	3.87	3.84
50th-Percentile Queue Length [ft/ln]	8.62	79.86	0.95	1.78	80.44	89.84	8.50	0.67	27.78	54.99	96.84	95.90
95th-Percentile Queue Length [veh/ln]	0.62	5.75	0.07	0.13	5.79	6.47	0.61	0.05	2.00	3.96	6.97	6.90
95th-Percentile Queue Length [ft/ln]	15.51	143.76	1.70	3.20	144.79	161.72	15.31	1.21	50.01	98.98	174.31	172.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.91	11.64	7.92	39.65	13.05	13.71	33.17	25.34	28.14	28.88	28.19	28.45
Movement LOS	C	B	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	12.10			13.12			29.11			28.59		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.30											
Intersection LOS	B											
Intersection V/C	0.574											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.236	2.161	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	531	219	531
d_b, Bicycle Delay [s]	18.00	17.26	25.38	17.26
I_b,int, Bicycle LOS Score for Intersection	2.340	2.275	1.721	2.904
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.285

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	317	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	713	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	200	3	1	0	1	2
Total Analysis Volume [veh/h]	801	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	69
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	34	0	11	0	15	26
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	69	69	69	69	69
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	37	0	42
g / C, Green / Cycle	0.28	0.28	0.54	0.01	0.60
(v / s)_i Volume / Saturation Flow Rate	0.23	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	969	445	965	13	2151
d1, Uniform Delay [s]	23.31	18.02	7.37	34.11	5.43
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.87	0.02	0.01	8.48	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.02	0.00	0.23	0.00
d, Delay for Lane Group [s/veh]	25.18	18.04	7.37	42.59	5.43
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	5.95	0.11	0.03	0.08	0.02
50th-Percentile Queue Length [ft/ln]	148.81	2.81	0.65	1.99	0.43
95th-Percentile Queue Length [veh/ln]	9.95	0.20	0.05	0.14	0.03
95th-Percentile Queue Length [ft/ln]	248.84	5.06	1.16	3.59	0.78

Movement, Approach, & Intersection Results

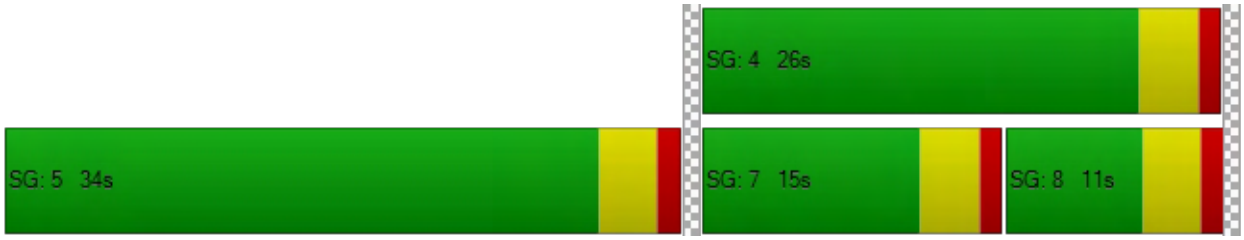
d_M, Delay for Movement [s/veh]	25.18	18.04	7.37	7.37	42.59	5.43
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	25.09		7.37		16.58	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.90					
Intersection LOS	C					
Intersection V/C	0.285					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	34.50	34.50	34.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.464

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	427	0	0	0	0	98
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	756	19	7	31	61	234
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	221	6	2	9	18	69
Total Analysis Volume [veh/h]	885	22	8	36	71	274
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	19	19	1	35	30	53
g / C, Green / Cycle	0.31	0.31	0.02	0.56	0.48	0.86
(v / s)_i Volume / Saturation Flow Rate	0.26	0.01	0.00	0.02	0.04	0.17
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	1068	491	29	1052	901	1359
d1, Uniform Delay [s]	19.96	15.06	30.19	6.06	8.68	0.79
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.73	0.04	4.84	0.06	0.17	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.04	0.27	0.03	0.08	0.20
d, Delay for Lane Group [s/veh]	21.68	15.10	35.03	6.12	8.85	0.86
Lane Group LOS	C	B	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.64	0.21	0.15	0.19	0.49	0.03
50th-Percentile Queue Length [ft/ln]	140.92	5.17	3.82	4.71	12.19	0.68
95th-Percentile Queue Length [veh/ln]	9.53	0.37	0.28	0.34	0.88	0.05
95th-Percentile Queue Length [ft/ln]	238.26	9.31	6.88	8.48	21.95	1.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.68	15.10	35.03	6.12	8.85	0.86
Movement LOS	C	B	D	A	A	A
d_A, Approach Delay [s/veh]	21.52		11.38		2.51	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.12					
Intersection LOS	B					
Intersection V/C	0.464					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	20.98	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.400	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	31.00	31.00	31.00
I_b,int, Bicycle LOS Score for Intersection	4.132	4.205	4.702
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	122	0	0	40	98	427	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	599	10	165	877	251	557	12	220	24	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	168	3	46	246	70	156	3	62	7	1	3
Total Analysis Volume [veh/h]	24	671	11	185	982	281	624	13	246	27	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	73
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	13	21	0	13	21	0	18	28	28	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	73	73	73	73	73	73	73	73	73	73	73
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	5	32	32	9	37	37	14	13	22	3	2
g / C, Green / Cycle	0.06	0.44	0.44	0.12	0.50	0.50	0.19	0.18	0.29	0.04	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.13	0.10	0.28	0.18	0.18	0.01	0.15	0.02	0.01
s, saturation flow rate [veh/h]	1781	3560	1855	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	112	1556	811	221	1774	792	664	333	470	76	48
d1, Uniform Delay [s]	32.60	13.27	13.28	31.36	12.74	11.20	29.17	24.92	21.50	34.10	34.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.94	0.47	0.90	8.18	1.25	1.25	7.21	0.05	0.91	2.83	4.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.29	0.29	0.84	0.55	0.35	0.94	0.04	0.52	0.36	0.33
d, Delay for Lane Group [s/veh]	33.54	13.74	14.18	39.54	13.99	12.45	36.39	24.97	22.41	36.93	38.92
Lane Group LOS	C	B	B	D	B	B	D	C	C	D	D
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.40	2.00	2.18	3.35	4.47	2.37	5.82	0.19	3.45	0.51	0.33
50th-Percentile Queue Length [ft/ln]	9.88	49.89	54.52	83.66	111.70	59.20	145.40	4.63	86.25	12.85	8.15
95th-Percentile Queue Length [veh/ln]	0.71	3.59	3.93	6.02	7.93	4.26	9.77	0.33	6.21	0.93	0.59
95th-Percentile Queue Length [ft/ln]	17.78	89.80	98.14	150.59	198.36	106.57	244.28	8.33	155.25	23.14	14.67

Movement, Approach, & Intersection Results

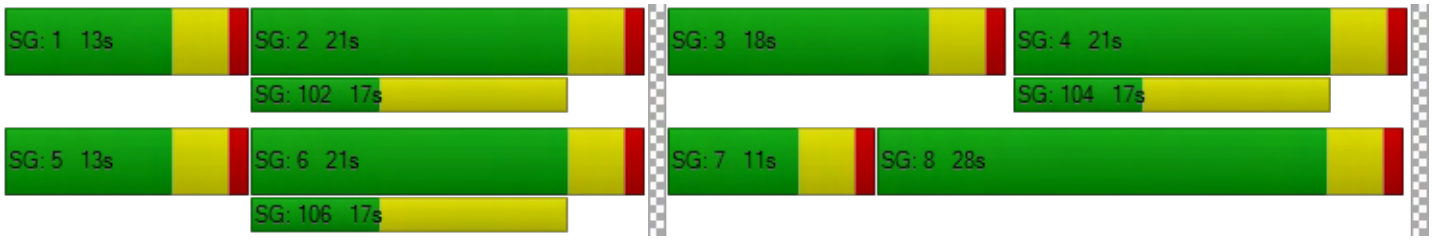
d_M, Delay for Movement [s/veh]	33.54	13.88	14.18	39.54	13.99	12.45	36.39	24.97	22.41	36.93	38.92	38.92
Movement LOS	C	B	B	D	B	B	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	14.56			16.95			32.33			37.67		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.10											
Intersection LOS	C											
Intersection V/C	0.614											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	26.33	26.33	26.33
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.285	2.635	2.011
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	466	466	658	466
d_b, Bicycle Delay [s]	21.48	21.48	16.45	21.48
l_b,int, Bicycle LOS Score for Intersection	1.948	2.754	3.017	1.631
Bicycle LOS	A	C	C	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	33.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.323

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	122	40	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	592	1102	26	61	67
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	168	312	7	17	19
Total Analysis Volume [veh/h]	28	671	1249	29	69	76
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.32	0.18
d_M, Delay for Movement [s/veh]	12.04	0.00	0.00	0.00	33.67	25.24
Movement LOS	B	A	A	A	D	D
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	2.62	2.62
95th-Percentile Queue Length [ft/ln]	4.10	0.00	0.00	0.00	65.61	65.61
d_A, Approach Delay [s/veh]	0.48		0.00		29.25	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	122	0	0	40	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	498	10	214	984	37	52	64	42	28	72	158
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	143	3	61	282	11	15	18	12	8	21	45
Total Analysis Volume [veh/h]	34	570	11	245	1127	42	60	73	48	32	82	181
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	24	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	32	32	43	35	35	19	12	12	19	10	10
g / C, Green / Cycle	0.61	0.46	0.46	0.61	0.51	0.51	0.27	0.17	0.17	0.27	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.24	0.31	0.31	0.04	0.04	0.03	0.02	0.04	0.11
s, saturation flow rate [veh/h]	648	1870	1858	1033	1870	1846	1483	1870	1589	1453	1870	1589
c, Capacity [veh/h]	431	848	842	693	940	929	516	319	271	514	277	235
d1, Uniform Delay [s]	7.72	12.44	12.44	6.77	12.65	12.67	19.12	25.16	24.93	18.80	26.67	28.78
k, delay calibration	0.50	0.50	0.50	0.12	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	1.11	1.12	0.35	3.13	3.19	0.10	0.36	0.31	0.05	0.59	5.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.34	0.34	0.35	0.62	0.63	0.12	0.23	0.18	0.06	0.30	0.77
d, Delay for Lane Group [s/veh]	8.07	13.55	13.56	7.12	15.78	15.86	19.21	25.53	25.24	18.85	27.26	34.04
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.18	2.69	2.68	1.20	6.02	5.98	0.73	1.06	0.69	0.34	1.15	2.96
50th-Percentile Queue Length [ft/ln]	4.53	67.34	67.01	30.08	150.44	149.42	18.18	26.48	17.31	8.61	28.63	74.07
95th-Percentile Queue Length [veh/ln]	0.33	4.85	4.82	2.17	10.04	9.99	1.31	1.91	1.25	0.62	2.06	5.33
95th-Percentile Queue Length [ft/ln]	8.16	121.21	120.61	54.14	251.02	249.66	32.72	47.66	31.16	15.50	51.53	133.32

Movement, Approach, & Intersection Results

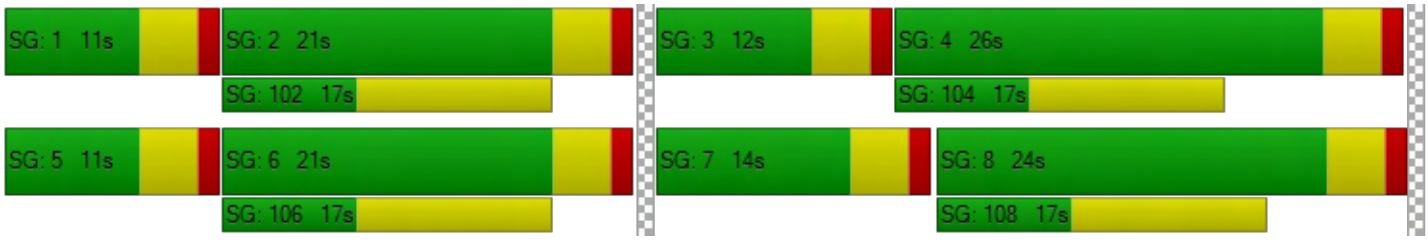
d_M, Delay for Movement [s/veh]	8.07	13.55	13.56	7.12	15.82	15.86	19.21	25.53	25.24	18.85	27.26	34.04
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	13.25			14.31			23.36			30.51		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.61											
Intersection LOS	B											
Intersection V/C	0.603											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.828	2.952	2.212	2.539
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	629
d_b, Bicycle Delay [s]	20.06	20.06	17.86	16.46
l_b,int, Bicycle LOS Score for Intersection	2.067	2.726	1.858	2.046
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	122	0	0	40	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	419	20	139	867	48	23	239	29	36	151	76
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	114	5	38	237	13	6	65	8	10	41	21
Total Analysis Volume [veh/h]	50	457	22	152	947	52	25	261	32	39	165	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	33	33	15	8	8	15	9	9
g / C, Green / Cycle	0.64	0.47	0.47	0.64	0.51	0.51	0.24	0.12	0.12	0.24	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.07	0.13	0.13	0.14	0.27	0.27	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	751	1870	1840	1098	1870	1836	1330	1870	1800	1344	1870	1667
c, Capacity [veh/h]	535	882	868	790	951	934	411	222	213	406	251	224
d1, Uniform Delay [s]	5.71	10.29	10.30	4.89	10.63	10.63	19.07	27.12	27.16	19.27	25.87	25.97
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.77	0.78	0.12	2.11	2.15	0.06	3.44	3.76	0.10	1.60	2.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.27	0.27	0.19	0.53	0.53	0.06	0.67	0.68	0.10	0.51	0.54
d, Delay for Lane Group [s/veh]	6.06	11.06	11.08	5.01	12.74	12.79	19.13	30.56	30.92	19.37	27.46	27.98
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.20	1.79	1.78	0.50	4.11	4.05	0.26	2.17	2.14	0.41	1.74	1.66
50th-Percentile Queue Length [ft/ln]	4.97	44.87	44.40	12.55	102.73	101.20	6.54	54.15	53.47	10.30	43.47	41.62
95th-Percentile Queue Length [veh/ln]	0.36	3.23	3.20	0.90	7.40	7.29	0.47	3.90	3.85	0.74	3.13	3.00
95th-Percentile Queue Length [ft/ln]	8.95	80.77	79.92	22.59	184.91	182.16	11.77	97.47	96.25	18.54	78.25	74.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.06	11.07	11.08	5.01	12.76	12.79	19.13	30.71	30.92	19.37	27.58	27.98
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.60			11.74			29.82			26.58		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.86											
Intersection LOS	B											
Intersection V/C	0.509											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.789	0.000	2.601
Crosswalk LOS	F	C	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.996	2.509	1.822	1.796
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	489.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.359

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	31	30	76	99	180	693	134	125	97	129	329
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	32	30	324	100	498	828	245	125	97	358	469
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	9	9	95	29	146	243	72	37	28	105	137
Total Analysis Volume [veh/h]	40	38	35	380	117	584	971	287	147	114	420	550
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	384	1081	971	450	407	970
Degree of Utilization, x	0.29	2.24	2.36	0.97	0.28	2.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.21	79.92	74.79	11.83	1.13	69.85
95th-Percentile Queue Length [ft]	30.21	1997.91	1869.67	295.87	28.29	1746.22
Approach Delay [s/veh]	16.24	582.34	460.04		483.89	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	489.34					
Intersection LOS	F					

Coachillin Industrial Park Parcels 30-31

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Report File: G:\...\PM OY.pdf

Scenario 1 Opening Year (2023) Without Project
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.014	47.5	E
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.512	350.8	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.479	247.2	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.551	16.8	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.253	24.2	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.428	14.6	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.515	16.6	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.046	15.4	C
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.580	18.0	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.463	16.3	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	2.502	396.5	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	47.5
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.014

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	21	13	50	8	0	0	55	4	9	98	88
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	337	129	85	166	17	23	162	20	96	180	152
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	88	34	22	43	4	6	42	5	25	47	40
Total Analysis Volume [veh/h]	59	351	135	89	173	18	24	169	21	100	188	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	439	485	412	400	437	446
Degree of Utilization, x	0.93	0.28	0.68	0.48	0.05	1.01

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	10.70	1.13	4.90	2.55	0.15	13.33
95th-Percentile Queue Length [ft]	267.42	28.22	122.59	63.69	3.78	333.34
Approach Delay [s/veh]	45.63		28.34	18.99		75.64
Approach LOS	E		D	C		F
Intersection Delay [s/veh]	47.55					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	350.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.512

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	21	387	8	13	0	0	40	1	658	80	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	454	717	37	242	0	5	128	17	850	177	65
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	117	184	10	62	0	1	33	4	219	46	17
Total Analysis Volume [veh/h]	15	467	738	38	249	0	5	132	17	874	182	67
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	482	738	418	421	392	425	1056	482
Degree of Utilization, x	1.06	1.47	0.69	0.00	0.35	0.04	2.51	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	15.11	37.01	5.05	0.00	1.54	0.12	84.17	0.48
95th-Percentile Queue Length [ft]	377.84	925.24	126.24	0.00	38.42	3.12	2104.18	11.98
Approach Delay [s/veh]	180.27		28.31		16.15		664.39	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	350.81							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	247.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.479

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	376	0	0	688	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1149	4	0	1142	3	9	0	15	3	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	304	1	0	302	1	2	0	4	1	0	0
Total Analysis Volume [veh/h]	11	1215	4	0	1207	3	10	0	16	3	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

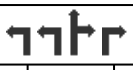
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.48	0.00	0.07	0.15	0.00	0.00
d_M, Delay for Movement [s/veh]	11.37	0.00	0.00	11.29	0.00	0.00	247.17	192.96	90.78	215.10	148.47	46.56
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	E
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.00	0.00	2.07	2.07	2.07	0.48	0.48	0.48
95th-Percentile Queue Length [ft/ln]	1.46	0.00	0.00	0.00	0.00	0.00	51.69	51.69	51.69	11.97	11.97	11.97
d_A, Approach Delay [s/veh]	0.10			0.00			150.93			172.96		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1.92											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.551

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	252	0	0	688	0	0	0	0	0	0	124
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	898	3	0	1149	21	24	1	87	229	40	352
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	240	1	0	307	6	6	0	23	61	11	94
Total Analysis Volume [veh/h]	50	958	3	0	1226	22	26	1	93	244	43	376
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	18	0	14	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	34	34	0	30	30	3	7	7	7	11	11
g / C, Green / Cycle	0.07	0.54	0.54	0.00	0.47	0.47	0.04	0.10	0.10	0.11	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.27	0.00	0.00	0.23	0.23	0.01	0.00	0.06	0.07	0.13	0.13
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1853	1781	1870	1589	3459	1639	1589
c, Capacity [veh/h]	119	1905	850	3	1673	871	76	196	167	378	281	272
d1, Uniform Delay [s]	28.80	9.51	6.96	0.00	11.73	11.73	29.88	25.76	27.35	27.44	25.36	25.37
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	0.95	0.01	0.00	1.03	1.97	2.60	0.01	2.89	1.85	4.14	4.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.50	0.00	0.00	0.49	0.49	0.34	0.01	0.56	0.65	0.76	0.76
d, Delay for Lane Group [s/veh]	31.14	10.46	6.97	0.00	12.76	13.71	32.48	25.77	30.24	29.29	29.49	29.69
Lane Group LOS	C	B	A	A	B	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.73	3.02	0.01	0.00	3.11	3.46	0.43	0.01	1.43	1.80	3.22	3.15
50th-Percentile Queue Length [ft/ln]	18.18	75.47	0.36	0.00	77.68	86.57	10.74	0.34	35.67	45.08	80.61	78.80
95th-Percentile Queue Length [veh/ln]	1.31	5.43	0.03	0.00	5.59	6.23	0.77	0.02	2.57	3.25	5.80	5.67
95th-Percentile Queue Length [ft/ln]	32.72	135.84	0.65	0.00	139.82	155.83	19.33	0.61	64.20	81.15	145.10	141.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.14	10.46	6.97	0.00	13.08	13.71	32.48	25.77	30.24	29.29	29.49	29.60
Movement LOS	C	B	A	A	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	11.47			13.09			30.69			29.48		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.82											
Intersection LOS	B											
Intersection V/C	0.551											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.211	2.170	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	438	531
d_b, Bicycle Delay [s]	17.26	17.26	19.53	17.26
l_b,int, Bicycle LOS Score for Intersection	2.394	2.246	1.758	2.654
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.253

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	124	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	645	4	2	1	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	174	1	1	0	1	2
Total Analysis Volume [veh/h]	697	4	2	1	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	36	1	41
g / C, Green / Cycle	0.25	0.25	0.55	0.01	0.62
(v / s)_i Volume / Saturation Flow Rate	0.20	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1766	1781	3560
c, Capacity [veh/h]	876	402	974	20	2222
d1, Uniform Delay [s]	22.75	18.21	6.57	31.94	4.62
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.70	0.01	0.01	6.43	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.01	0.00	0.25	0.00
d, Delay for Lane Group [s/veh]	24.45	18.22	6.57	38.37	4.62
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	4.84	0.04	0.02	0.11	0.02
50th-Percentile Queue Length [ft/ln]	121.12	1.09	0.43	2.77	0.52
95th-Percentile Queue Length [veh/ln]	8.45	0.08	0.03	0.20	0.04
95th-Percentile Queue Length [ft/ln]	211.37	1.97	0.77	4.99	0.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.45	18.22	6.57	6.57	38.37	4.62
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	24.41		6.57		15.87	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.16					
Intersection LOS	C					
Intersection V/C	0.253					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.50	32.50	32.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.137	4.145
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.428

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	209	0	0	0	0	250
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	425	11	10	71	58	351
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	3	3	21	17	105
Total Analysis Volume [veh/h]	507	13	12	85	69	418
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	71
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	28	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	71	71	71	71	71	71
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	14	14	2	49	43	62
g / C, Green / Cycle	0.20	0.20	0.02	0.69	0.61	0.87
(v / s)_i Volume / Saturation Flow Rate	0.15	0.01	0.01	0.05	0.04	0.26
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	696	320	40	1283	1136	1375
d1, Uniform Delay [s]	26.58	22.87	34.21	3.67	5.69	0.88
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.48	0.05	4.08	0.10	0.10	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.04	0.30	0.07	0.06	0.30
d, Delay for Lane Group [s/veh]	28.05	22.92	38.29	3.77	5.79	1.08
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.97	0.17	0.24	0.33	0.38	0.08
50th-Percentile Queue Length [ft/ln]	99.30	4.34	6.10	8.24	9.48	1.90
95th-Percentile Queue Length [veh/ln]	7.15	0.31	0.44	0.59	0.68	0.14
95th-Percentile Queue Length [ft/ln]	178.73	7.81	10.98	14.83	17.06	3.42

Movement, Approach, & Intersection Results

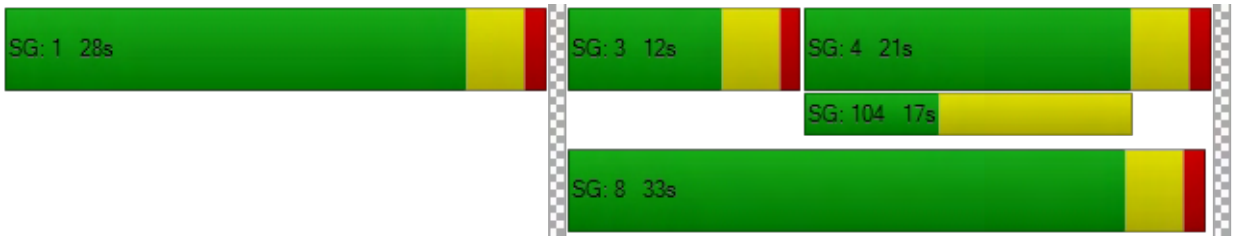
d_M, Delay for Movement [s/veh]	28.05	22.92	38.29	3.77	5.79	1.08
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	27.93		8.04		1.75	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	14.63					
Intersection LOS	B					
Intersection V/C	0.428					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	25.35	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.350	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	35.50	35.50	35.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.292	4.936
Bicycle LOS	D	E	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.515

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	43	0	0	91	250	209	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	939	17	154	489	366	375	18	102	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	240	4	39	125	94	96	5	26	2	2	3
Total Analysis Volume [veh/h]	50	961	17	158	501	375	384	18	104	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	13	22	22	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	7	35	35	9	10	18	1	2
g / C, Green / Cycle	0.06	0.49	0.49	0.11	0.53	0.53	0.14	0.15	0.27	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.09	0.14	0.24	0.11	0.01	0.07	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1853	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	117	1723	897	191	1869	835	474	279	438	32	51
d1, Uniform Delay [s]	29.74	10.77	10.77	29.00	8.70	9.78	27.76	24.21	18.60	32.10	31.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	0.62	1.19	8.89	0.35	1.75	3.37	0.10	0.28	4.55	3.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.37	0.37	0.83	0.27	0.45	0.81	0.06	0.24	0.28	0.33
d, Delay for Lane Group [s/veh]	32.17	11.39	11.96	37.89	9.05	11.53	31.13	24.31	18.88	36.66	35.19
Lane Group LOS	C	B	B	D	A	B	C	C	B	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.76	2.28	2.52	2.62	1.45	2.70	3.02	0.24	1.20	0.18	0.31
50th-Percentile Queue Length [ft/ln]	18.91	57.02	62.97	65.48	36.32	67.42	75.61	5.98	29.90	4.46	7.74
95th-Percentile Queue Length [veh/ln]	1.36	4.11	4.53	4.71	2.61	4.85	5.44	0.43	2.15	0.32	0.56
95th-Percentile Queue Length [ft/ln]	34.03	102.63	113.34	117.87	65.37	121.36	136.09	10.76	53.82	8.02	13.94

Movement, Approach, & Intersection Results

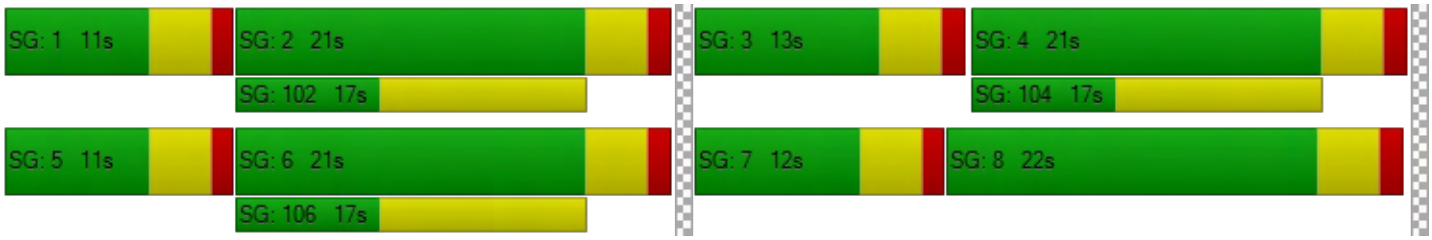
d_M, Delay for Movement [s/veh]	32.17	11.58	11.96	37.89	9.05	11.53	31.13	24.31	18.88	36.66	35.19	35.19
Movement LOS	C	B	B	D	A	B	C	C	B	D	D	D
d_A, Approach Delay [s/veh]	12.58			14.36			28.37			35.70		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	16.60											
Intersection LOS	B											
Intersection V/C	0.515											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.92	22.92	22.92
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.187	2.588	1.994
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	515	515	545	515
d_b, Bicycle Delay [s]	18.19	18.19	17.45	18.19
l_b,int, Bicycle LOS Score for Intersection	2.125	2.413	2.395	1.603
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	43	91	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	874	602	26	16	28
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	229	158	7	4	7
Total Analysis Volume [veh/h]	48	916	631	27	17	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	9.10	0.00	0.00	0.00	15.35	10.96
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.29	0.29
95th-Percentile Queue Length [ft/ln]	4.10	0.00	0.00	0.00	7.23	7.23
d_A, Approach Delay [s/veh]	0.45		0.00		12.58	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.61					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	43	0	0	91	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	712	27	110	528	53	72	60	25	24	82	216
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	192	7	30	143	14	19	16	7	6	22	58
Total Analysis Volume [veh/h]	51	770	29	119	571	57	78	65	27	26	89	234
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	35	25	25	35	27	27	21	14	14	21	12	12
g / C, Green / Cycle	0.55	0.39	0.39	0.55	0.42	0.42	0.33	0.22	0.22	0.33	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.21	0.22	0.13	0.17	0.17	0.05	0.03	0.02	0.02	0.05	0.15
s, saturation flow rate [veh/h]	975	1870	1846	940	1870	1811	1474	1870	1589	1436	1870	1589
c, Capacity [veh/h]	600	723	714	563	780	755	599	418	355	603	341	290
d1, Uniform Delay [s]	7.34	15.40	15.40	8.25	13.17	13.17	15.20	20.07	19.71	14.72	22.57	25.20
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	3.07	3.11	0.19	1.59	1.64	0.10	0.17	0.09	0.03	0.40	5.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.56	0.56	0.21	0.41	0.41	0.13	0.16	0.08	0.04	0.26	0.81
d, Delay for Lane Group [s/veh]	7.62	18.47	18.51	8.44	14.76	14.82	15.30	20.24	19.80	14.75	22.97	30.52
Lane Group LOS	A	B	B	A	B	B	B	C	B	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.28	4.37	4.32	0.60	2.95	2.87	0.78	0.77	0.32	0.22	1.05	3.39
50th-Percentile Queue Length [ft/ln]	7.05	109.25	108.08	15.03	73.76	71.86	19.43	19.32	7.90	5.53	26.16	84.70
95th-Percentile Queue Length [veh/ln]	0.51	7.80	7.73	1.08	5.31	5.17	1.40	1.39	0.57	0.40	1.88	6.10
95th-Percentile Queue Length [ft/ln]	12.69	194.96	193.33	27.05	132.76	129.34	34.97	34.78	14.22	9.95	47.08	152.46

Movement, Approach, & Intersection Results

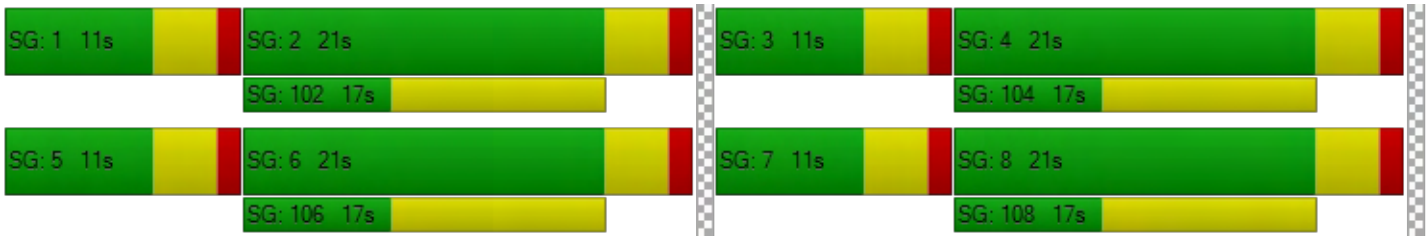
d_M, Delay for Movement [s/veh]	7.62	18.49	18.51	8.44	14.78	14.82	15.30	20.24	19.80	14.75	22.97	30.52
Movement LOS	A	B	B	A	B	B	B	C	B	B	C	C
d_A, Approach Delay [s/veh]	17.84			13.78			17.91			27.42		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	17.99											
Intersection LOS	B											
Intersection V/C	0.580											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.722	2.840	2.219	2.412
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	2.261	2.176	1.840	2.135
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	43	0	0	91	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	674	19	93	473	21	42	141	21	16	240	106
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	177	5	24	124	6	11	37	6	4	63	28
Total Analysis Volume [veh/h]	60	706	20	97	496	22	44	148	22	17	252	111
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	29	29	39	30	30	17	11	11	17	9	9
g / C, Green / Cycle	0.61	0.46	0.46	0.61	0.47	0.47	0.27	0.17	0.17	0.27	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.20	0.10	0.14	0.14	0.03	0.05	0.05	0.01	0.10	0.10
s, saturation flow rate [veh/h]	1038	1870	1852	941	1870	1842	1283	1870	1788	1346	1870	1682
c, Capacity [veh/h]	717	849	841	637	882	869	411	326	312	481	268	241
d1, Uniform Delay [s]	5.41	11.90	11.91	5.96	10.42	10.43	18.01	22.96	22.99	17.46	26.21	26.32
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	1.59	1.60	0.11	0.85	0.87	0.11	0.42	0.46	0.03	3.30	4.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.43	0.43	0.15	0.30	0.30	0.11	0.26	0.27	0.04	0.70	0.73
d, Delay for Lane Group [s/veh]	5.64	13.49	13.51	6.07	11.28	11.29	18.12	23.38	23.45	17.49	29.51	30.47
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	3.15	3.12	0.37	1.97	1.95	0.44	1.04	1.03	0.17	2.69	2.57
50th-Percentile Queue Length [ft/ln]	6.41	78.72	78.09	9.19	49.18	48.65	11.06	26.03	25.66	4.18	67.19	64.24
95th-Percentile Queue Length [veh/ln]	0.46	5.67	5.62	0.66	3.54	3.50	0.80	1.87	1.85	0.30	4.84	4.63
95th-Percentile Queue Length [ft/ln]	11.53	141.70	140.55	16.53	88.53	87.56	19.90	46.86	46.18	7.53	120.95	115.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.64	13.50	13.51	6.07	11.28	11.29	18.12	23.41	23.45	17.49	29.75	30.47
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	12.90			10.46			22.33			29.41		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.31											
Intersection LOS	B											
Intersection V/C	0.463											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.724	0.000	2.537
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.208	2.067	1.736	1.873
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	396.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.502

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	72	62	59	236	22	461	148	259	28	22	235	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	63	62	369	23	612	388	510	28	23	435	224
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	17	17	101	6	168	107	140	8	6	120	62
Total Analysis Volume [veh/h]	79	69	68	405	25	673	426	560	31	25	478	246
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	381	1103	426	591	384	724
Degree of Utilization, x	0.57	2.50	1.10	1.43	0.07	1.74

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.37	87.49	15.22	29.82	0.21	44.56
95th-Percentile Queue Length [ft]	84.36	2187.37	380.60	745.62	5.20	1113.89
Approach Delay [s/veh]	24.11	700.37	179.23		351.49	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	396.52					
Intersection LOS	F					

Coachillin Industrial Park Parcels 30-31

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Scenario 1 Opening Year (2023) Without Project
10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.864	29.0	D
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.236	331.9	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.302	131.1	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.452	14.4	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.180	25.5	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.406	16.5	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.484	19.6	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.039	12.3	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.334	13.9	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.310	15.7	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.932	277.8	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	29.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	3	9	93	6	0	0	95	5	7	81	83
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	168	58	120	161	27	12	178	30	64	189	119
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	47	16	33	45	8	3	50	8	18	53	33
Total Analysis Volume [veh/h]	26	188	65	134	180	30	13	199	33	71	211	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	440	487	455	441	486	480
Degree of Utilization, x	0.49	0.13	0.76	0.48	0.07	0.86

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.60	0.46	6.37	2.55	0.22	9.05
95th-Percentile Queue Length [ft]	64.96	11.45	159.17	63.76	5.44	226.28
Approach Delay [s/veh]	16.70		31.52	17.18		42.01
Approach LOS	C		D	C		E
Intersection Delay [s/veh]	28.95					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	331.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.236

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	610	9	9	0	0	64	1	576	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	230	785	31	234	3	4	124	23	777	142	27
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	61	207	8	62	1	1	33	6	205	38	7
Total Analysis Volume [veh/h]	8	243	830	33	247	3	4	131	24	821	150	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	463	830	429	471	404	439	971	501
Degree of Utilization, x	0.54	1.63	0.65	0.01	0.33	0.05	2.24	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.17	46.75	4.53	0.02	1.44	0.17	72.14	0.18
95th-Percentile Queue Length [ft]	79.27	1168.76	113.31	0.48	36.06	4.33	1803.41	4.60
Approach Delay [s/veh]	242.83		25.36		15.31		565.16	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	331.86							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	131.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.302

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	622	0	0	578	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	995	19	1	1018	5	11	0	10	1	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	254	5	0	259	1	3	0	3	0	0	1
Total Analysis Volume [veh/h]	19	1014	19	1	1038	5	11	0	10	1	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

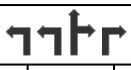
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.30	0.00	0.04	0.03	0.00	0.01
d_M, Delay for Movement [s/veh]	10.56	0.00	0.00	10.36	0.00	0.00	131.11	105.37	45.03	108.29	79.02	19.13
Movement LOS	B	A	A	B	A	A	F	F	E	F	F	C
95th-Percentile Queue Length [veh/ln]	0.09	0.00	0.00	0.00	0.00	0.00	1.24	1.24	1.24	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	2.20	0.00	0.00	0.11	0.11	0.11	30.89	30.89	30.89	2.71	2.71	2.71
d_A, Approach Delay [s/veh]	0.19			0.01			90.12			48.85		
Approach LOS	A			A			F			E		
d_I, Intersection Delay [s/veh]	1.06											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	423	0	0	578	0	0	0	0	0	0	199
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	710	9	6	993	11	22	4	53	142	20	304
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	190	2	2	266	3	6	1	14	38	5	82
Total Analysis Volume [veh/h]	18	762	10	6	1065	12	24	4	57	152	21	326
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	15	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	35	35	1	34	34	3	5	5	7	9	9
g / C, Green / Cycle	0.03	0.55	0.55	0.01	0.53	0.53	0.04	0.08	0.08	0.10	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.01	0.21	0.01	0.00	0.20	0.20	0.01	0.00	0.04	0.04	0.11	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1859	1781	1870	1589	3459	1619	1589
c, Capacity [veh/h]	58	1955	873	23	1887	986	72	159	135	358	240	236
d1, Uniform Delay [s]	30.41	8.31	6.57	31.41	8.86	8.86	30.00	26.95	27.90	27.02	26.14	26.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.05	0.59	0.02	5.66	0.57	1.09	2.68	0.06	2.07	0.80	4.21	4.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.39	0.01	0.26	0.37	0.37	0.33	0.03	0.42	0.42	0.73	0.73
d, Delay for Lane Group [s/veh]	33.46	8.90	6.60	37.07	9.43	9.95	32.68	27.02	29.97	27.82	30.35	30.43
Lane Group LOS	C	A	A	D	A	A	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.29	2.08	0.05	0.12	2.05	2.29	0.40	0.06	0.87	1.08	2.70	2.65
50th-Percentile Queue Length [ft/ln]	7.24	52.06	1.14	2.96	51.27	57.13	10.00	1.42	21.81	27.03	67.41	66.32
95th-Percentile Queue Length [veh/ln]	0.52	3.75	0.08	0.21	3.69	4.11	0.72	0.10	1.57	1.95	4.85	4.78
95th-Percentile Queue Length [ft/ln]	13.03	93.71	2.06	5.33	92.28	102.84	17.99	2.55	39.25	48.65	121.34	119.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.46	8.90	6.60	37.07	9.60	9.95	32.68	27.02	29.97	27.82	30.35	30.39
Movement LOS	C	A	A	D	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	9.43			9.76			30.59			29.61		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	14.40											
Intersection LOS	B											
Intersection V/C	0.452											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.088	2.145	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	531	344	531
d_b, Bicycle Delay [s]	18.00	17.26	21.95	17.26
l_b,int, Bicycle LOS Score for Intersection	2.211	2.155	1.700	2.383
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.180

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	199	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	468	2	5	1	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	124	1	1	0	0	3
Total Analysis Volume [veh/h]	494	2	5	1	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	40	0	44
g / C, Green / Cycle	0.19	0.19	0.62	0.00	0.69
(v / s)_i Volume / Saturation Flow Rate	0.14	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1817	1781	3560
c, Capacity [veh/h]	659	303	1127	3	2438
d1, Uniform Delay [s]	24.52	21.04	4.63	0.00	3.20
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.74	0.01	0.01	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.01	0.01	0.00	0.00
d, Delay for Lane Group [s/veh]	26.26	21.05	4.64	0.00	3.20
Lane Group LOS	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.48	0.02	0.03	0.00	0.02
50th-Percentile Queue Length [ft/ln]	87.08	0.60	0.65	0.00	0.40
95th-Percentile Queue Length [veh/ln]	6.27	0.04	0.05	0.00	0.03
95th-Percentile Queue Length [ft/ln]	156.75	1.07	1.16	0.00	0.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.26	21.05	4.64	4.64	0.00	3.20
Movement LOS	C	C	A	A	A	A
d_A, Approach Delay [s/veh]	26.24		4.64		3.20	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	25.49					
Intersection LOS	C					
Intersection V/C	0.180					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.00	32.00	32.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.142	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.406

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	367	0	0	0	0	180
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	575	8	12	32	34	270
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	161	2	3	9	9	75
Total Analysis Volume [veh/h]	642	9	13	36	38	302
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	16	16	2	41	36	56
g / C, Green / Cycle	0.24	0.24	0.02	0.64	0.55	0.85
(v / s)_i Volume / Saturation Flow Rate	0.19	0.01	0.01	0.02	0.02	0.19
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	833	383	44	1190	1030	1355
d1, Uniform Delay [s]	23.06	18.88	31.23	4.39	6.72	0.87
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.55	0.02	3.75	0.05	0.07	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.02	0.30	0.03	0.04	0.22
d, Delay for Lane Group [s/veh]	24.61	18.91	34.97	4.44	6.78	0.95
Lane Group LOS	C	B	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.46	0.10	0.24	0.15	0.22	0.03
50th-Percentile Queue Length [ft/ln]	111.42	2.52	5.97	3.76	5.53	0.77
95th-Percentile Queue Length [veh/ln]	7.92	0.18	0.43	0.27	0.40	0.06
95th-Percentile Queue Length [ft/ln]	197.97	4.54	10.74	6.78	9.96	1.39

Movement, Approach, & Intersection Results

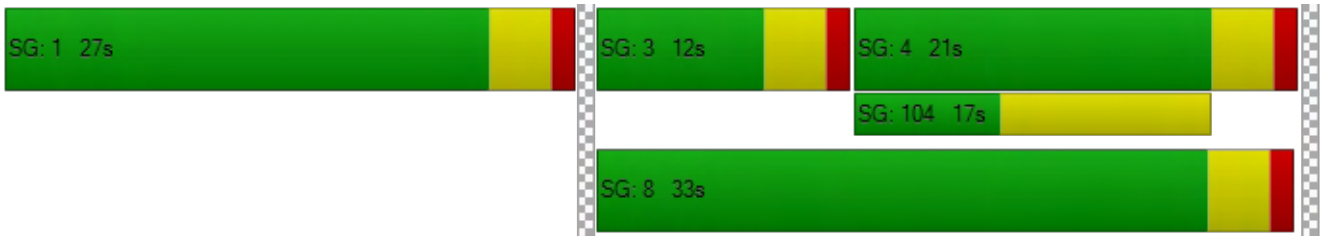
d_M, Delay for Movement [s/veh]	24.61	18.91	34.97	4.44	6.78	0.95
Movement LOS	C	B	C	A	A	A
d_A, Approach Delay [s/veh]	24.53		12.54		1.61	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.47					
Intersection LOS	B					
Intersection V/C	0.406					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.349	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.50	32.50	32.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.213	4.693
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	0	0	46	180	367	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	418	21	120	368	268	500	11	97	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	112	6	32	98	72	134	3	26	2	2	3
Total Analysis Volume [veh/h]	49	447	22	128	393	286	534	12	104	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	17	26	26	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	6	35	35	13	14	22	1	2
g / C, Green / Cycle	0.06	0.47	0.47	0.09	0.50	0.50	0.18	0.20	0.32	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.09	0.07	0.11	0.18	0.15	0.01	0.07	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1826	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	113	1653	848	166	1760	786	628	377	512	23	55
d1, Uniform Delay [s]	31.68	11.04	11.05	31.11	10.10	10.96	27.82	22.53	17.27	34.35	33.24
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.60	0.25	0.49	7.28	0.29	1.31	3.34	0.03	0.19	5.92	3.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.19	0.19	0.77	0.22	0.36	0.85	0.03	0.20	0.26	0.35
d, Delay for Lane Group [s/veh]	34.28	11.29	11.54	38.39	10.40	12.26	31.16	22.57	17.47	40.27	36.96
Lane Group LOS	C	B	B	D	B	B	C	C	B	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	1.14	1.23	2.22	1.35	2.30	4.42	0.16	1.18	0.14	0.36
50th-Percentile Queue Length [ft/ln]	19.98	28.39	30.85	55.49	33.76	57.59	110.47	3.92	29.49	3.40	9.09
95th-Percentile Queue Length [veh/ln]	1.44	2.04	2.22	4.00	2.43	4.15	7.87	0.28	2.12	0.25	0.65
95th-Percentile Queue Length [ft/ln]	35.97	51.10	55.53	99.89	60.76	103.66	196.66	7.05	53.09	6.13	16.36

Movement, Approach, & Intersection Results

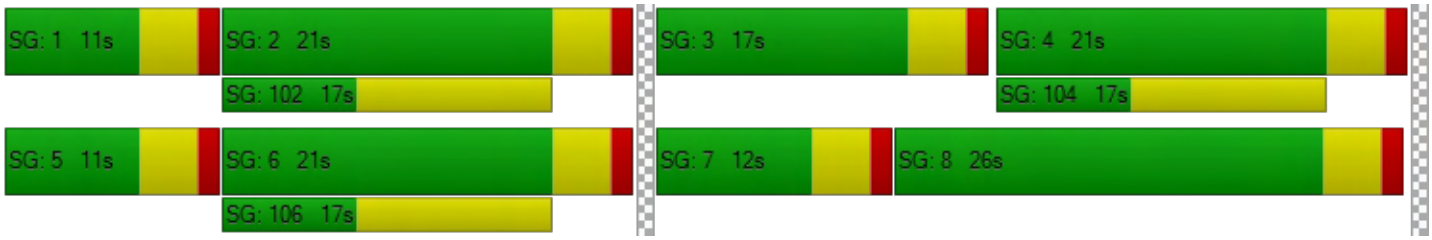
d_M, Delay for Movement [s/veh]	34.28	11.37	11.54	38.39	10.40	12.26	31.16	22.57	17.47	40.27	36.96	36.96
Movement LOS	C	B	B	D	B	B	C	C	B	D	D	D
d_A, Approach Delay [s/veh]	13.54			15.50			28.81			37.75		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	19.60											
Intersection LOS	B											
Intersection V/C	0.484											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.040	2.600	1.987
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	629	486
d_b, Bicycle Delay [s]	20.06	20.06	16.46	20.06
l_b,int, Bicycle LOS Score for Intersection	1.845	2.225	2.632	1.601
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.039

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	46	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	456	463	12	20	17
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	116	118	3	5	4
Total Analysis Volume [veh/h]	17	465	472	12	20	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.04	0.02
d_M, Delay for Movement [s/veh]	8.40	0.00	0.00	0.00	12.33	10.08
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.19	0.19
95th-Percentile Queue Length [ft/ln]	1.20	0.00	0.00	0.00	4.84	4.84
d_A, Approach Delay [s/veh]	0.30		0.00		11.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.334

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	0	0	46	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	390	18	113	400	57	51	67	34	25	77	118
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	101	5	29	104	15	13	17	9	7	20	31
Total Analysis Volume [veh/h]	37	406	19	118	416	59	53	70	35	26	80	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	33	33	15	9	9	15	7	7
g / C, Green / Cycle	0.63	0.48	0.48	0.63	0.52	0.52	0.24	0.14	0.14	0.24	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.04	0.11	0.11	0.10	0.13	0.13	0.04	0.04	0.02	0.02	0.04	0.08
s, saturation flow rate [veh/h]	1036	1870	1841	1129	1870	1790	1510	1870	1589	1468	1870	1589
c, Capacity [veh/h]	749	884	871	810	964	923	486	257	219	484	208	177
d1, Uniform Delay [s]	4.64	10.08	10.08	4.84	8.67	8.67	19.05	24.84	24.45	18.74	26.52	27.52
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.65	0.66	0.08	0.62	0.66	0.10	0.57	0.34	0.05	1.16	4.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.24	0.24	0.15	0.25	0.25	0.11	0.27	0.16	0.05	0.38	0.70
d, Delay for Lane Group [s/veh]	4.77	10.73	10.75	4.93	9.29	9.33	19.14	25.41	24.79	18.78	27.69	32.38
Lane Group LOS	A	B	B	A	A	A	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	1.55	1.54	0.39	1.56	1.51	0.61	0.97	0.48	0.26	1.07	1.85
50th-Percentile Queue Length [ft/ln]	3.43	38.87	38.52	9.77	39.06	37.85	15.17	24.14	11.90	6.57	26.87	46.15
95th-Percentile Queue Length [veh/ln]	0.25	2.80	2.77	0.70	2.81	2.73	1.09	1.74	0.86	0.47	1.93	3.32
95th-Percentile Queue Length [ft/ln]	6.18	69.97	69.33	17.59	70.30	68.14	27.31	43.46	21.42	11.83	48.37	83.07

Movement, Approach, & Intersection Results

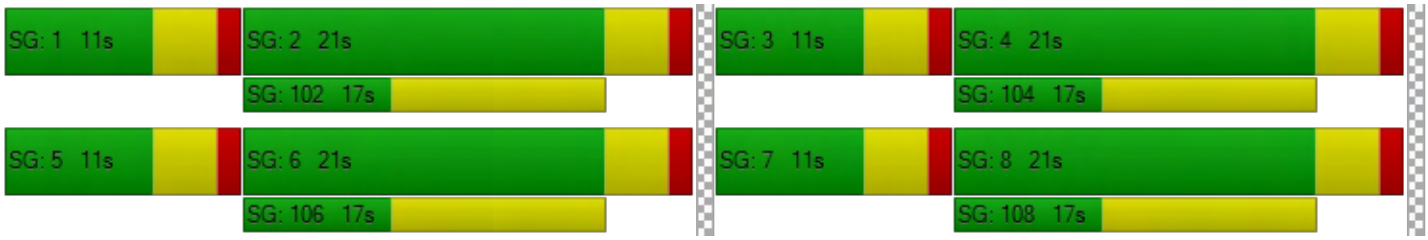
d_M, Delay for Movement [s/veh]	4.77	10.74	10.75	4.93	9.31	9.33	19.14	25.41	24.79	18.78	27.69	32.38
Movement LOS	A	B	B	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.26			8.44			23.17			29.20		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	13.93											
Intersection LOS	B											
Intersection V/C	0.334											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.562	2.635	2.209	2.374
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.941	2.049	1.820	1.937
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.310

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	0	0	46	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	365	28	74	390	35	30	142	42	34	179	73
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	97	7	20	104	9	8	38	11	9	48	19
Total Analysis Volume [veh/h]	73	388	30	79	415	37	32	151	45	36	190	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	33	33	43	33	33	15	7	7	15	7	7
g / C, Green / Cycle	0.65	0.51	0.51	0.65	0.51	0.51	0.22	0.11	0.11	0.22	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.11	0.07	0.12	0.12	0.02	0.05	0.06	0.03	0.07	0.08
s, saturation flow rate [veh/h]	1083	1870	1823	1111	1870	1817	1350	1870	1728	1409	1870	1691
c, Capacity [veh/h]	799	948	924	821	953	926	390	206	190	424	214	194
d1, Uniform Delay [s]	4.33	8.95	8.95	4.31	8.94	8.94	20.11	27.30	27.37	20.07	27.63	27.73
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.54	0.56	0.05	0.59	0.62	0.09	1.75	2.07	0.08	3.21	4.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.22	0.22	0.10	0.24	0.24	0.08	0.48	0.51	0.08	0.64	0.67
d, Delay for Lane Group [s/veh]	4.55	9.49	9.52	4.36	9.53	9.56	20.20	29.05	29.44	20.15	30.84	31.77
Lane Group LOS	A	A	A	A	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	1.41	1.39	0.23	1.53	1.50	0.35	1.42	1.39	0.40	2.04	1.98
50th-Percentile Queue Length [ft/ln]	6.40	35.18	34.63	5.87	38.20	37.48	8.78	35.53	34.76	9.88	51.10	49.47
95th-Percentile Queue Length [veh/ln]	0.46	2.53	2.49	0.42	2.75	2.70	0.63	2.56	2.50	0.71	3.68	3.56
95th-Percentile Queue Length [ft/ln]	11.52	63.32	62.34	10.57	68.76	67.46	15.81	63.95	62.56	17.78	91.98	89.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.55	9.50	9.52	4.36	9.54	9.56	20.20	29.18	29.44	20.15	31.10	31.77
Movement LOS	A	A	A	A	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.77			8.77			27.97			29.98		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.74											
Intersection LOS	B											
Intersection V/C	0.310											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.43	0.00	22.43
I_p,int, Pedestrian LOS Score for Intersection	0.000	2.589	0.000	2.508
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	523	523
d_b, Bicycle Delay [s]	17.72	17.72	17.72	17.72
I_b,int, Bicycle LOS Score for Intersection	1.965	1.998	1.748	1.810
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	277.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.932

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	6	8	63	13	131	153	512	18	13	497	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	8	149	14	271	258	692	18	14	682	130
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	2	42	4	76	72	194	5	4	191	36
Total Analysis Volume [veh/h]	11	7	9	167	16	303	289	775	20	16	764	146
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	392	526	444	795	436	910
Degree of Utilization, x	0.07	0.92	0.65	1.68	0.04	1.93

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.22	11.23	4.54	46.52	0.11	60.52
95th-Percentile Queue Length [ft]	5.53	280.64	113.48	1163.00	2.85	1512.95
Approach Delay [s/veh]	12.87	48.73	250.55		437.62	
Approach LOS	B	E	F		F	
Intersection Delay [s/veh]	277.79					
Intersection LOS	F					

Opening Year (2023) With Project Without Amphitheater Event

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

Report File: G:\...\AM OYP.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.399	97.9	F
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Right	2.353	433.3	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.016	24.0	C
4	Project Dwy (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.003	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	3.820	1,686.5	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	1.209	1,132.5	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.674	19.6	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.338	25.3	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.507	16.4	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.634	21.9	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.334	34.5	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.607	16.7	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.509	15.9	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Left	2.359	493.2	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.007	30.0	D
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	30.6	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	97.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.399

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	11	11	99	38	0	0	120	21	23	41	32
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	156	110	151	306	31	23	217	56	160	97	54
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	47	33	45	92	9	7	65	17	48	29	16
Total Analysis Volume [veh/h]	14	187	132	181	366	37	28	260	67	191	116	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	403	440	584	411	449	420
Degree of Utilization, x	0.50	0.30	1.40	0.70	0.15	0.89

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.70	1.25	28.50	5.25	0.52	9.22
95th-Percentile Queue Length [ft]	67.40	31.21	712.38	131.27	13.03	230.42
Approach Delay [s/veh]	17.89		217.42	26.32		49.99
Approach LOS	C		F	D		E
Intersection Delay [s/veh]	97.85					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	433.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.353

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	16	814	40	41	0	0	100	17	314	32	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	225	943	59	484	18	4	184	71	688	110	29
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	63	263	16	135	5	1	51	20	192	31	8
Total Analysis Volume [veh/h]	25	251	1051	66	540	20	4	205	79	767	123	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	410	1051	606	444	378	408	890	444
Degree of Utilization, x	0.67	2.35	1.49	0.05	0.55	0.19	2.28	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.81	80.44	31.95	0.14	3.21	0.71	67.33	0.23
95th-Percentile Queue Length [ft]	120.21	2011.08	798.85	3.53	80.37	17.71	1683.15	5.80
Approach Delay [s/veh]	507.41		247.60		20.68		581.55	
Approach LOS	F		F		C		F	
Intersection Delay [s/veh]	433.28							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	24.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	870	10	17	295	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1252	10	17	1254	0	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	329	3	4	330	0	1
Total Analysis Volume [veh/h]	1318	11	18	1320	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.01	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	12.18	0.00	0.00	24.02
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.00	0.00	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.69	0.00	0.00	1.19
d_A, Approach Delay [s/veh]	0.00		0.16		24.02	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	27	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	0
Total Analysis Volume [veh/h]	3	0	0	28	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.27	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,686.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.820

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	877	168	16	279	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1259	168	16	1238	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	331	44	4	326	18	1
Total Analysis Volume [veh/h]	1325	177	17	1303	72	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.01	3.82	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	13.39	0.00	1686.50	1516.83
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.11	9.80	9.80
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.78	2.78	245.04	245.04
d_A, Approach Delay [s/veh]	0.00		0.17		1679.72	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	43.56					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,132.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.209

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1088	0	0	347	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1458	18	4	1288	15	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	408	5	1	361	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	22	1633	20	4	1442	17	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

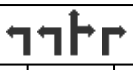
V/C, Movement V/C Ratio	0.05	0.02	0.00	0.01	0.01	0.00	1.22	0.00	0.04	1.21	0.00	0.05
d_M, Delay for Movement [s/veh]	13.16	0.00	0.00	14.32	0.00	0.00	1127.55	872.25	521.67	1132.51	882.90	539.95
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.03	0.03	0.03	2.48	2.48	2.48	2.38	2.38	2.38
95th-Percentile Queue Length [ft/ln]	3.73	0.00	0.00	0.78	0.78	0.78	62.05	62.05	62.05	59.52	59.52	59.52
d_A, Approach Delay [s/veh]	0.17			0.04			824.61			859.02		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	7.29											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	625	0	0	347	0	0	0	0	0	0	463
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	919	6	3	1242	18	18	2	70	275	55	565
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	250	2	1	338	5	5	1	19	75	15	154
Total Analysis Volume [veh/h]	22	1000	7	3	1351	20	20	2	76	299	60	615
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	11	0	21	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	29	29	0	27	27	2	10	10	8	16	16
g / C, Green / Cycle	0.04	0.46	0.46	0.01	0.43	0.43	0.03	0.16	0.16	0.12	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.28	0.00	0.00	0.25	0.25	0.01	0.00	0.05	0.09	0.21	0.21
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1856	1781	1870	1589	3459	1633	1589
c, Capacity [veh/h]	67	1619	723	14	1511	788	62	306	260	434	414	403
d1, Uniform Delay [s]	30.13	13.29	9.60	31.71	14.25	14.25	30.26	22.52	23.62	26.91	22.57	22.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	1.78	0.02	7.94	1.74	3.31	2.90	0.01	0.62	1.96	3.94	4.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.62	0.01	0.22	0.60	0.60	0.32	0.01	0.29	0.69	0.81	0.84
d, Delay for Lane Group [s/veh]	32.91	15.07	9.62	39.65	15.99	17.57	33.17	22.53	24.24	28.88	26.51	27.38
Lane Group LOS	C	B	A	D	B	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.34	4.34	0.04	0.07	4.10	4.62	0.34	0.02	1.00	2.20	4.89	4.99
50th-Percentile Queue Length [ft/ln]	8.62	108.40	1.12	1.78	102.59	115.56	8.50	0.62	25.12	54.99	122.15	124.65
95th-Percentile Queue Length [veh/ln]	0.62	7.75	0.08	0.13	7.39	8.15	0.61	0.04	1.81	3.96	8.51	8.65
95th-Percentile Queue Length [ft/ln]	15.51	193.77	2.01	3.20	184.66	203.71	15.31	1.12	45.21	98.98	212.78	216.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.91	15.07	9.62	39.65	16.52	17.57	33.17	22.53	24.24	28.88	26.51	26.99
Movement LOS	C	B	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.41			16.58			26.03			27.54		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.57											
Intersection LOS	B											
Intersection V/C	0.674											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.330	2.161	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	531	219	531
d_b, Bicycle Delay [s]	18.00	17.26	25.38	17.26
l_b,int, Bicycle LOS Score for Intersection	2.409	2.315	1.721	3.167
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.338

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	463	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	859	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	241	3	1	0	1	2
Total Analysis Volume [veh/h]	965	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	74
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	36	0	11	0	13	24
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	74	74	74	74	74
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	38	0	42
g / C, Green / Cycle	0.32	0.32	0.51	0.01	0.57
(v / s)_i Volume / Saturation Flow Rate	0.28	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	1123	516	907	13	2020
d1, Uniform Delay [s]	23.44	17.01	9.06	36.58	6.95
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.05	0.01	0.01	8.85	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.02	0.00	0.23	0.00
d, Delay for Lane Group [s/veh]	25.49	17.02	9.07	45.43	6.95
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.69	0.11	0.03	0.08	0.02
50th-Percentile Queue Length [ft/ln]	192.33	2.83	0.78	2.11	0.55
95th-Percentile Queue Length [veh/ln]	12.24	0.20	0.06	0.15	0.04
95th-Percentile Queue Length [ft/ln]	306.05	5.09	1.41	3.80	0.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.49	17.02	9.07	9.07	45.43	6.95
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	25.41		9.07		18.49	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	25.27					
Intersection LOS	C					
Intersection V/C	0.338					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.00	37.00	37.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	490	0	0	0	0	138
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	819	19	7	31	61	274
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	240	6	2	9	18	80
Total Analysis Volume [veh/h]	959	22	8	36	71	321
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	21	21	1	35	30	55
g / C, Green / Cycle	0.32	0.32	0.02	0.55	0.47	0.86
(v / s)_i Volume / Saturation Flow Rate	0.28	0.01	0.00	0.02	0.04	0.20
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	1118	514	29	1032	885	1365
d1, Uniform Delay [s]	20.32	14.89	31.17	6.56	9.25	0.80
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.03	0.03	4.91	0.06	0.18	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.04	0.27	0.03	0.08	0.24
d, Delay for Lane Group [s/veh]	22.36	14.93	36.08	6.63	9.43	0.89
Lane Group LOS	C	B	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.40	0.21	0.16	0.20	0.52	0.03
50th-Percentile Queue Length [ft/ln]	160.02	5.24	3.94	5.11	13.02	0.83
95th-Percentile Queue Length [veh/ln]	10.55	0.38	0.28	0.37	0.94	0.06
95th-Percentile Queue Length [ft/ln]	263.74	9.42	7.09	9.21	23.44	1.49

Movement, Approach, & Intersection Results

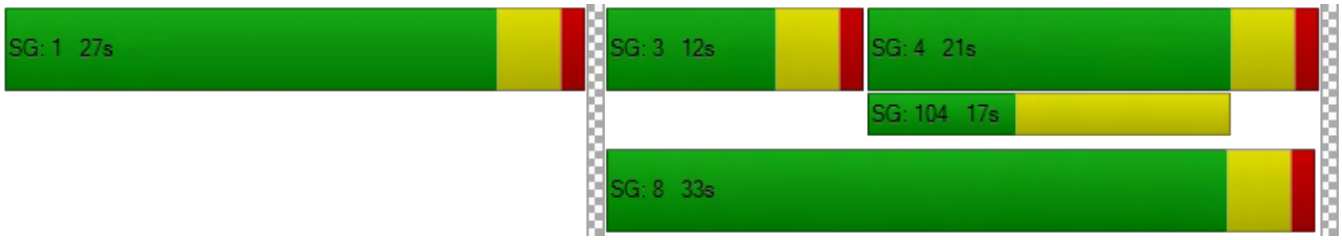
d_M, Delay for Movement [s/veh]	22.36	14.93	36.08	6.63	9.43	0.89
Movement LOS	C	B	D	A	A	A
d_A, Approach Delay [s/veh]	22.19		11.98		2.44	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.41					
Intersection LOS	B					
Intersection V/C	0.507					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.432	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.00	32.00	32.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.205	4.779
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.634

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	135	0	0	44	138	490	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	612	10	165	881	291	620	12	220	24	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	171	3	46	247	81	174	3	62	7	1	3
Total Analysis Volume [veh/h]	24	685	11	185	987	326	694	13	246	27	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	76
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	13	21	0	13	21	0	21	31	31	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	76	76	76	76	76	76	76	76	76	76	76
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	5	32	32	9	36	36	17	16	25	3	2
g / C, Green / Cycle	0.06	0.42	0.42	0.12	0.48	0.48	0.22	0.21	0.32	0.04	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.13	0.10	0.28	0.21	0.20	0.01	0.15	0.02	0.01
s, saturation flow rate [veh/h]	1781	3560	1855	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	111	1494	778	212	1697	757	772	392	515	75	48
d1, Uniform Delay [s]	33.99	14.74	14.74	33.00	14.45	13.14	28.77	23.98	20.60	35.53	36.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.97	0.53	1.02	10.55	1.46	1.78	4.11	0.03	0.69	2.93	4.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.31	0.31	0.87	0.58	0.43	0.90	0.03	0.48	0.36	0.34
d, Delay for Lane Group [s/veh]	34.96	15.27	15.76	43.55	15.91	14.92	32.88	24.02	21.29	38.45	40.44
Lane Group LOS	C	B	B	D	B	B	C	C	C	D	D
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.42	2.27	2.47	3.64	5.13	3.25	6.32	0.18	3.43	0.54	0.34
50th-Percentile Queue Length [ft/ln]	10.38	56.69	61.85	90.96	128.18	81.19	158.05	4.62	85.66	13.44	8.49
95th-Percentile Queue Length [veh/ln]	0.75	4.08	4.45	6.55	8.84	5.85	10.45	0.33	6.17	0.97	0.61
95th-Percentile Queue Length [ft/ln]	18.68	102.05	111.33	163.72	221.02	146.15	261.13	8.32	154.19	24.19	15.29

Movement, Approach, & Intersection Results

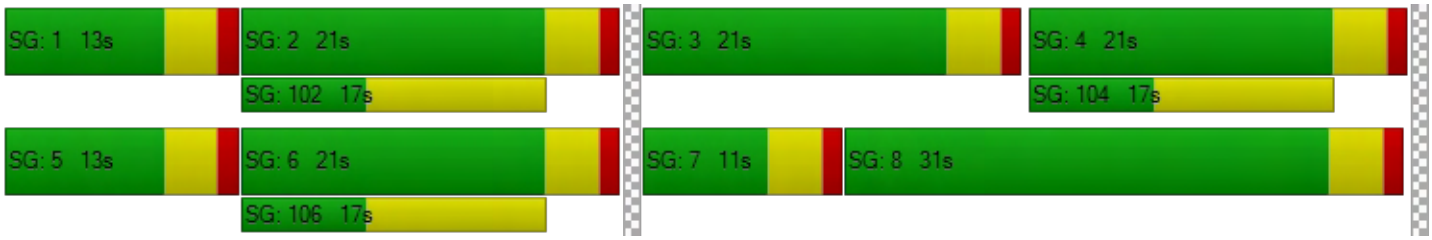
d_M, Delay for Movement [s/veh]	34.96	15.43	15.76	43.55	15.91	14.92	32.88	24.02	21.29	38.45	40.44	40.44
Movement LOS	C	B	B	D	B	B	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	16.09			19.11			29.77			39.19		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.86											
Intersection LOS	C											
Intersection V/C	0.634											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	27.80	27.80	27.80
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.322	2.656	2.013
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	447	447	711	447
d_b, Bicycle Delay [s]	22.90	22.90	15.80	22.90
l_b,int, Bicycle LOS Score for Intersection	1.956	2.795	3.132	1.631
Bicycle LOS	A	C	C	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.334

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	133	44	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	603	1106	26	63	67
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	171	313	7	18	19
Total Analysis Volume [veh/h]	28	684	1254	29	71	76
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.33	0.18
d_M, Delay for Movement [s/veh]	12.08	0.00	0.00	0.00	34.46	25.94
Movement LOS	B	A	A	A	D	D
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	2.73	2.73
95th-Percentile Queue Length [ft/ln]	4.12	0.00	0.00	0.00	68.25	68.25
d_A, Approach Delay [s/veh]	0.47		0.00		30.06	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.22					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	130	0	1	43	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	506	10	215	987	37	52	64	42	28	72	161
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	145	3	62	283	11	15	18	12	8	21	46
Total Analysis Volume [veh/h]	34	580	11	246	1131	42	60	73	48	32	82	184
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	24	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	32	32	43	35	35	19	12	12	19	10	10
g / C, Green / Cycle	0.61	0.45	0.45	0.61	0.50	0.50	0.28	0.17	0.17	0.28	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.24	0.32	0.32	0.04	0.04	0.03	0.02	0.04	0.12
s, saturation flow rate [veh/h]	647	1870	1858	1027	1870	1847	1482	1870	1589	1453	1870	1589
c, Capacity [veh/h]	429	844	838	687	937	925	518	322	274	516	280	238
d1, Uniform Delay [s]	7.81	12.57	12.57	6.86	12.77	12.79	19.01	25.05	24.82	18.70	26.55	28.71
k, delay calibration	0.50	0.50	0.50	0.13	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	1.15	1.16	0.37	3.20	3.26	0.10	0.35	0.30	0.05	0.57	5.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.35	0.35	0.36	0.63	0.63	0.12	0.23	0.18	0.06	0.29	0.77
d, Delay for Lane Group [s/veh]	8.17	13.72	13.73	7.24	15.97	16.05	19.11	25.40	25.12	18.75	27.13	33.98
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.18	2.77	2.75	1.22	6.09	6.05	0.72	1.06	0.69	0.34	1.14	3.01
50th-Percentile Queue Length [ft/ln]	4.57	69.13	68.79	30.57	152.28	151.27	18.12	26.39	17.25	8.58	28.52	75.22
95th-Percentile Queue Length [veh/ln]	0.33	4.98	4.95	2.20	10.14	10.08	1.30	1.90	1.24	0.62	2.05	5.42
95th-Percentile Queue Length [ft/ln]	8.23	124.44	123.83	55.03	253.47	252.12	32.62	47.51	31.06	15.44	51.34	135.40

Movement, Approach, & Intersection Results

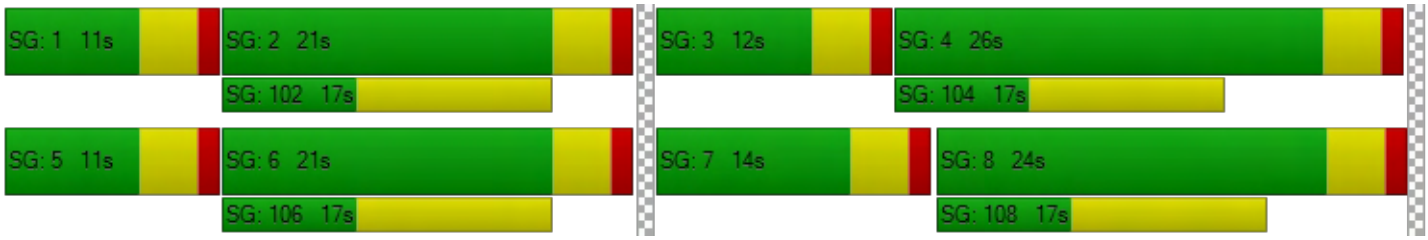
d_M, Delay for Movement [s/veh]	8.17	13.72	13.73	7.24	16.01	16.05	19.11	25.40	25.12	18.75	27.13	33.98
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	13.42			14.49			23.24			30.46		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.74											
Intersection LOS	B											
Intersection V/C	0.607											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.832	2.957	2.212	2.541
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	629
d_b, Bicycle Delay [s]	20.06	20.06	17.86	16.46
l_b,int, Bicycle LOS Score for Intersection	2.075	2.730	1.858	2.051
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	127	0	1	42	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	424	20	140	869	48	23	239	29	36	151	79
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	116	5	38	237	13	6	65	8	10	41	22
Total Analysis Volume [veh/h]	50	463	22	153	949	52	25	261	32	39	165	86
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	33	33	15	8	8	15	9	9
g / C, Green / Cycle	0.64	0.47	0.47	0.64	0.51	0.51	0.24	0.12	0.12	0.24	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.07	0.13	0.13	0.14	0.27	0.27	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	750	1870	1840	1094	1870	1836	1328	1870	1800	1344	1870	1663
c, Capacity [veh/h]	534	882	868	787	951	934	410	222	213	406	251	223
d1, Uniform Delay [s]	5.72	10.32	10.32	4.91	10.64	10.64	19.07	27.12	27.16	19.27	25.89	26.00
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.78	0.79	0.12	2.12	2.16	0.06	3.44	3.76	0.10	1.64	2.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.28	0.28	0.19	0.53	0.53	0.06	0.67	0.68	0.10	0.52	0.55
d, Delay for Lane Group [s/veh]	6.07	11.10	11.12	5.03	12.76	12.80	19.13	30.56	30.92	19.37	27.53	28.08
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.20	1.82	1.80	0.51	4.12	4.06	0.26	2.17	2.14	0.41	1.76	1.69
50th-Percentile Queue Length [ft/ln]	4.97	45.55	45.07	12.64	103.03	101.50	6.54	54.15	53.47	10.30	44.12	42.18
95th-Percentile Queue Length [veh/ln]	0.36	3.28	3.24	0.91	7.42	7.31	0.47	3.90	3.85	0.74	3.18	3.04
95th-Percentile Queue Length [ft/ln]	8.95	81.98	81.12	22.76	185.45	182.70	11.78	97.47	96.25	18.54	79.41	75.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.07	11.11	11.12	5.03	12.78	12.80	19.13	30.71	30.92	19.37	27.65	28.08
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.64			11.75			29.82			26.66		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.88											
Intersection LOS	B											
Intersection V/C	0.509											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.792	0.000	2.603
Crosswalk LOS	F	C	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	2.001	2.512	1.822	1.799
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	493.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.359

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	31	30	76	99	180	693	137	125	97	141	329
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	32	30	324	100	498	828	248	125	97	370	469
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	9	9	95	29	146	243	73	37	28	108	137
Total Analysis Volume [veh/h]	40	38	35	380	117	584	971	291	147	114	434	550
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	384	1081	971	450	407	984
Degree of Utilization, x	0.29	2.24	2.36	0.98	0.28	2.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.21	79.92	74.79	12.13	1.13	71.59
95th-Percentile Queue Length [ft]	30.21	1997.91	1869.68	303.36	28.30	1789.86
Approach Delay [s/veh]	16.24	582.34	459.58		497.69	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	493.20					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1044	44	0	347	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1426	44	0	1306	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	375	12	0	344	0	0
Total Analysis Volume [veh/h]	1501	46	0	1375	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	29.98
Movement LOS	A	A		A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.52
d_A, Approach Delay [s/veh]	0.00		0.00		29.98	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1088	0	0	347	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1470	0	0	1306	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	387	0	0	344	0	0
Total Analysis Volume [veh/h]	1547	0	0	1375	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	13.40	0.00	0.00	30.60
Movement LOS	A	A	B	A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		30.60	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	D					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

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10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.030	49.7	E
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.547	361.2	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.094	23.6	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.020	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	8.705	3,761.7	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.964	632.7	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.642	18.7	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.286	24.4	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.541	14.7	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.658	17.8	B
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.052	15.6	C
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.584	18.1	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.468	16.4	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	2.502	400.9	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.022	25.1	D
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	25.4	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	49.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.030

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	26	21	50	10	0	0	55	4	14	98	88
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	342	137	85	168	17	23	162	20	101	180	152
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	89	36	22	44	4	6	42	5	26	47	40
Total Analysis Volume [veh/h]	59	357	143	89	175	18	24	169	21	105	188	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	439	485	411	399	435	451
Degree of Utilization, x	0.95	0.30	0.69	0.48	0.05	1.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.12	1.22	5.00	2.56	0.15	13.84
95th-Percentile Queue Length [ft]	278.07	30.53	124.92	64.02	3.79	346.04
Approach Delay [s/veh]	47.51		28.78	19.08		79.96
Approach LOS	E		D	C		F
Intersection Delay [s/veh]	49.68					
Intersection LOS	E					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	361.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.547

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	34	400	8	20	0	0	40	8	666	80	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	467	730	37	249	0	5	128	24	858	177	65
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	120	188	10	64	0	1	33	6	221	46	17
Total Analysis Volume [veh/h]	28	480	751	38	256	0	5	132	25	883	182	67
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	508	751	416	419	391	424	1065	480
Degree of Utilization, x	1.12	1.51	0.71	0.00	0.35	0.06	2.55	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	17.64	38.84	5.35	0.00	1.54	0.19	85.53	0.48
95th-Percentile Queue Length [ft]	441.09	971.01	133.82	0.00	38.61	4.69	2138.26	12.06
Approach Delay [s/veh]	196.91		29.67		16.02		679.40	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	361.19							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	23.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	395	5	10	700	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1178	5	10	1158	0	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	310	1	3	305	0	5
Total Analysis Volume [veh/h]	1240	5	11	1219	0	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.01	0.00	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	11.57	0.00	0.00	23.58
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.00	0.00	0.31
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.50	0.00	0.00	7.65
d_A, Approach Delay [s/veh]	0.00		0.10		23.58	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.24					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	15	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	4	0	0
Total Analysis Volume [veh/h]	20	0	0	16	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.63	8.42	0.00	0.00	7.25	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.51	1.51	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.79					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	3,761.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	8.705

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	385	95	12	688	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1168	95	12	1146	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	307	25	3	302	63	4
Total Analysis Volume [veh/h]	1229	100	13	1206	251	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.01	8.71	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	12.11	0.00	3761.75	3654.65
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.07	32.64	32.64
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.77	1.77	816.07	816.07
d_A, Approach Delay [s/veh]	0.00		0.13		3755.33	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	356.25					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	632.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.964

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	529	0	0	926	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1302	4	0	1380	3	9	0	15	3	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	344	1	0	365	1	2	0	4	1	0	0
Total Analysis Volume [veh/h]	11	1376	4	0	1459	3	10	0	16	3	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

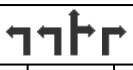
V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.96	0.00	0.10	0.32	0.00	0.01
d_M, Delay for Movement [s/veh]	12.98	0.00	0.00	12.25	0.00	0.00	632.72	506.25	308.51	493.29	330.15	130.16
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.00	0.00	0.00	3.22	3.22	3.22	0.81	0.81	0.81
95th-Percentile Queue Length [ft/ln]	1.83	0.00	0.00	0.00	0.00	0.00	80.57	80.57	80.57	20.28	20.28	20.28
d_A, Approach Delay [s/veh]	0.10			0.00			433.21			402.51		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	4.51											
Intersection LOS	F											

Intersection Level Of Service Report

Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	311	0	0	926	0	0	0	0	0	0	218
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	957	3	0	1387	21	24	1	87	229	40	446
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	255	1	0	370	6	6	0	23	61	11	119
Total Analysis Volume [veh/h]	50	1021	3	0	1480	22	26	1	93	244	43	476
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	18	0	14	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	0	28	28	3	9	9	7	13	13
g / C, Green / Cycle	0.07	0.50	0.50	0.00	0.44	0.44	0.04	0.14	0.14	0.11	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.03	0.29	0.00	0.00	0.28	0.28	0.01	0.00	0.06	0.07	0.16	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1856	1781	1870	1589	3459	1630	1589
c, Capacity [veh/h]	119	1789	799	3	1557	812	76	257	219	378	332	324
d1, Uniform Delay [s]	28.80	11.16	7.97	0.00	14.07	14.07	29.88	23.92	25.39	27.44	24.27	24.30
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.34	1.33	0.01	0.00	1.98	3.75	2.60	0.01	1.31	1.85	4.17	4.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.57	0.00	0.00	0.63	0.63	0.34	0.00	0.43	0.65	0.79	0.79
d, Delay for Lane Group [s/veh]	31.14	12.48	7.98	0.00	16.05	17.83	32.48	23.93	26.70	29.29	28.43	28.71
Lane Group LOS	C	B	A	A	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.73	3.77	0.02	0.00	4.50	5.09	0.43	0.01	1.31	1.80	3.91	3.87
50th-Percentile Queue Length [ft/ln]	18.18	94.23	0.41	0.00	112.46	127.27	10.74	0.32	32.87	45.08	97.82	96.70
95th-Percentile Queue Length [veh/ln]	1.31	6.78	0.03	0.00	7.98	8.79	0.77	0.02	2.37	3.25	7.04	6.96
95th-Percentile Queue Length [ft/ln]	32.72	169.61	0.73	0.00	199.42	219.77	19.33	0.58	59.16	81.15	176.07	174.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.14	12.48	7.98	0.00	16.64	17.83	32.48	23.93	26.70	29.29	28.43	28.58
Movement LOS	C	B	A	A	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	13.34			16.66			27.93			28.80		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.70											
Intersection LOS	B											
Intersection V/C	0.642											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.335	2.170	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	438	531
d_b, Bicycle Delay [s]	17.26	17.26	19.53	17.26
l_b,int, Bicycle LOS Score for Intersection	2.446	2.386	1.758	2.819
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.286

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	218	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	739	4	2	1	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	200	1	1	0	1	2
Total Analysis Volume [veh/h]	799	4	2	1	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	68
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	68	68	68	68	68
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	36	1	41
g / C, Green / Cycle	0.28	0.28	0.53	0.01	0.60
(v / s)_i Volume / Saturation Flow Rate	0.23	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1766	1781	3560
c, Capacity [veh/h]	975	448	938	20	2139
d1, Uniform Delay [s]	22.85	17.61	7.51	33.41	5.45
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.77	0.01	0.01	6.58	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.01	0.00	0.25	0.00
d, Delay for Lane Group [s/veh]	24.62	17.62	7.51	39.99	5.45
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	5.80	0.04	0.02	0.12	0.02
50th-Percentile Queue Length [ft/ln]	145.05	1.10	0.49	2.89	0.61
95th-Percentile Queue Length [veh/ln]	9.75	0.08	0.04	0.21	0.04
95th-Percentile Queue Length [ft/ln]	243.81	1.98	0.88	5.19	1.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.62	17.62	7.51	7.51	39.99	5.45
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	24.59		7.51		16.96	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	24.39					
Intersection LOS	C					
Intersection V/C	0.286					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	34.00	34.00	34.00
I_b,int, Bicycle LOS Score for Intersection	4.132	4.137	4.145
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.541

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	256	0	0	0	0	406
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	472	11	10	71	58	507
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	141	3	3	21	17	151
Total Analysis Volume [veh/h]	563	13	12	85	69	604
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	78
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	78	78	78	78	78	78
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	17	17	2	53	48	68
g / C, Green / Cycle	0.22	0.22	0.02	0.68	0.61	0.88
(v / s)_i Volume / Saturation Flow Rate	0.16	0.01	0.01	0.05	0.04	0.38
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	746	343	39	1275	1138	1392
d1, Uniform Delay [s]	28.69	24.22	37.60	4.14	6.21	0.98
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.44
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.58	0.04	4.29	0.10	0.10	0.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.04	0.31	0.07	0.06	0.43
d, Delay for Lane Group [s/veh]	30.27	24.26	41.89	4.24	6.31	1.85
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.91	0.19	0.27	0.39	0.43	0.34
50th-Percentile Queue Length [ft/ln]	122.86	4.74	6.71	9.81	10.80	8.47
95th-Percentile Queue Length [veh/ln]	8.55	0.34	0.48	0.71	0.78	0.61
95th-Percentile Queue Length [ft/ln]	213.75	8.53	12.08	17.65	19.43	15.24

Movement, Approach, & Intersection Results

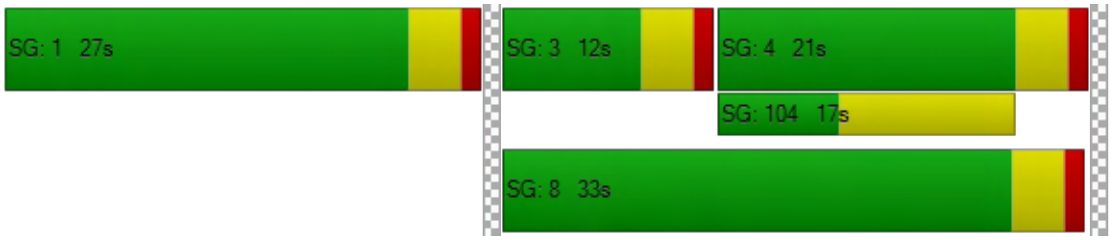
d_M, Delay for Movement [s/veh]	30.27	24.26	41.89	4.24	6.31	1.85
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	30.14		8.90		2.31	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	14.69					
Intersection LOS	B					
Intersection V/C	0.541					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	28.78	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.414	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	39.00	39.00	39.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.292	5.243
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	0	0	109	406	256	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	951	17	154	507	522	422	18	102	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	243	4	39	130	134	108	5	26	2	2	3
Total Analysis Volume [veh/h]	50	973	17	158	519	534	432	18	104	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	13	23	23	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	7	35	35	9	10	18	1	2
g / C, Green / Cycle	0.06	0.49	0.49	0.11	0.53	0.53	0.14	0.15	0.27	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.09	0.15	0.34	0.12	0.01	0.07	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1854	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	117	1723	897	191	1869	835	474	279	438	32	51
d1, Uniform Delay [s]	29.74	10.79	10.80	29.00	8.75	11.26	28.20	24.21	18.60	32.10	31.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	0.63	1.21	8.89	0.37	3.75	7.16	0.10	0.28	4.55	3.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.38	0.38	0.83	0.28	0.64	0.91	0.06	0.24	0.28	0.33
d, Delay for Lane Group [s/veh]	32.17	11.43	12.01	37.89	9.12	15.00	35.36	24.31	18.88	36.66	35.19
Lane Group LOS	C	B	B	D	A	B	D	C	B	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.76	2.32	2.56	2.62	1.51	4.62	3.67	0.24	1.20	0.18	0.31
50th-Percentile Queue Length [ft/ln]	18.91	57.89	63.95	65.48	37.86	115.58	91.86	5.98	29.90	4.46	7.74
95th-Percentile Queue Length [veh/ln]	1.36	4.17	4.60	4.71	2.73	8.15	6.61	0.43	2.15	0.32	0.56
95th-Percentile Queue Length [ft/ln]	34.03	104.20	115.10	117.87	68.15	203.73	165.34	10.76	53.82	8.02	13.94

Movement, Approach, & Intersection Results

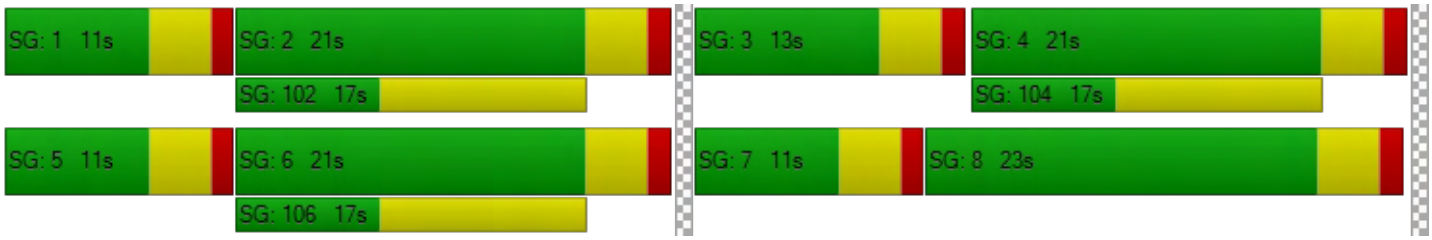
d_M, Delay for Movement [s/veh]	32.17	11.62	12.01	37.89	9.12	15.00	35.36	24.31	18.88	36.66	35.19	35.19
Movement LOS	C	B	B	D	A	B	D	C	B	D	D	D
d_A, Approach Delay [s/veh]	12.61			15.47			31.91			35.70		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	17.82											
Intersection LOS	B											
Intersection V/C	0.658											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.92	22.92	22.92
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.248	2.622	1.994
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	515	515	576	515
d_b, Bicycle Delay [s]	18.19	18.19	16.73	18.19
l_b,int, Bicycle LOS Score for Intersection	2.132	2.559	2.474	1.603
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.052

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	53	106	3	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	884	617	29	18	28
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	232	162	8	5	7
Total Analysis Volume [veh/h]	48	927	647	30	19	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	9.17	0.00	0.00	0.00	15.59	11.10
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.17	0.00	0.00	0.00	0.31	0.31
95th-Percentile Queue Length [ft/ln]	4.17	0.00	0.00	0.00	7.84	7.84
d_A, Approach Delay [s/veh]	0.45		0.00		12.88	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.62					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	50	0	4	102	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	719	27	114	539	53	72	60	25	24	82	219
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	194	7	31	146	14	19	16	7	6	22	59
Total Analysis Volume [veh/h]	51	777	29	123	583	57	78	65	27	26	89	237
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	22	0	11	22	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	36	26	26	36	28	28	21	15	15	21	12	12
g / C, Green / Cycle	0.55	0.39	0.39	0.55	0.42	0.42	0.33	0.22	0.22	0.33	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.22	0.13	0.17	0.17	0.05	0.03	0.02	0.02	0.05	0.15
s, saturation flow rate [veh/h]	966	1870	1846	934	1870	1812	1472	1870	1589	1436	1870	1589
c, Capacity [veh/h]	593	729	719	559	786	761	597	421	357	601	344	293
d1, Uniform Delay [s]	7.42	15.53	15.53	8.38	13.28	13.29	15.43	20.31	19.95	14.94	22.81	25.53
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.29	3.06	3.10	0.20	1.61	1.66	0.10	0.17	0.09	0.03	0.39	5.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.56	0.56	0.22	0.41	0.41	0.13	0.15	0.08	0.04	0.26	0.81
d, Delay for Lane Group [s/veh]	7.71	18.58	18.63	8.57	14.89	14.95	15.53	20.48	20.04	14.97	23.20	30.86
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.29	4.47	4.43	0.64	3.06	2.98	0.79	0.79	0.32	0.23	1.06	3.49
50th-Percentile Queue Length [ft/ln]	7.19	111.84	110.65	15.89	76.44	74.48	19.80	19.64	8.03	5.65	26.59	87.29
95th-Percentile Queue Length [veh/ln]	0.52	7.94	7.88	1.14	5.50	5.36	1.43	1.41	0.58	0.41	1.91	6.28
95th-Percentile Queue Length [ft/ln]	12.94	198.56	196.91	28.61	137.60	134.07	35.65	35.36	14.46	10.17	47.87	157.12

Movement, Approach, & Intersection Results

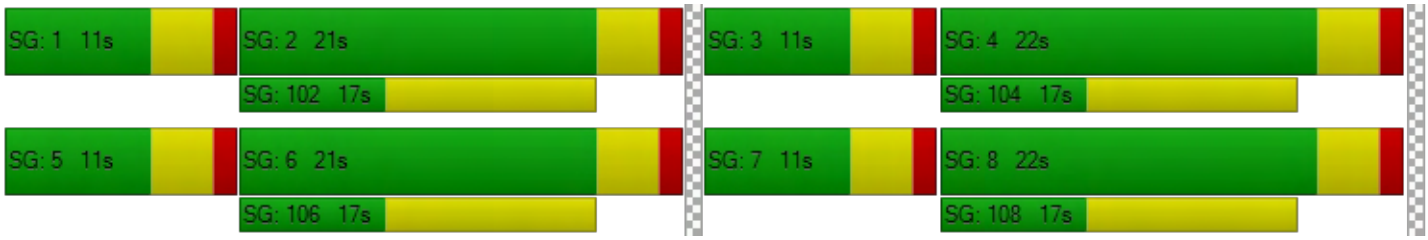
d_M, Delay for Movement [s/veh]	7.71	18.60	18.63	8.57	14.92	14.95	15.53	20.48	20.04	14.97	23.20	30.86
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	17.96			13.90			18.14			27.75		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	18.13											
Intersection LOS	B											
Intersection V/C	0.584											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.43	22.43	22.43	22.43
l_p,int, Pedestrian LOS Score for Intersection	2.728	2.848	2.221	2.418
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	523	523	554	554
d_b, Bicycle Delay [s]	17.72	17.72	16.99	16.99
l_b,int, Bicycle LOS Score for Intersection	2.267	2.189	1.840	2.140
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	4	98	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	678	19	97	480	21	42	141	21	16	240	109
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	178	5	25	126	6	11	37	6	4	63	29
Total Analysis Volume [veh/h]	60	711	20	102	503	22	44	148	22	17	252	114
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	29	29	39	30	30	17	11	11	17	9	9
g / C, Green / Cycle	0.61	0.45	0.45	0.61	0.47	0.47	0.27	0.17	0.17	0.27	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.20	0.11	0.14	0.14	0.03	0.05	0.05	0.01	0.10	0.11
s, saturation flow rate [veh/h]	1034	1870	1852	942	1870	1843	1281	1870	1788	1346	1870	1679
c, Capacity [veh/h]	712	844	836	635	880	867	410	328	314	482	270	243
d1, Uniform Delay [s]	5.45	12.04	12.04	6.03	10.49	10.49	17.96	22.90	22.93	17.41	26.17	26.29
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	1.63	1.65	0.12	0.87	0.89	0.11	0.42	0.45	0.03	3.29	4.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.44	0.44	0.16	0.30	0.30	0.11	0.26	0.27	0.04	0.70	0.73
d, Delay for Lane Group [s/veh]	5.68	13.67	13.69	6.15	11.36	11.38	18.08	23.32	23.39	17.44	29.47	30.45
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	3.20	3.18	0.39	2.01	1.98	0.44	1.04	1.02	0.17	2.71	2.59
50th-Percentile Queue Length [ft/ln]	6.44	80.06	79.42	9.74	50.13	49.58	11.04	25.98	25.61	4.17	67.75	64.69
95th-Percentile Queue Length [veh/ln]	0.46	5.76	5.72	0.70	3.61	3.57	0.79	1.87	1.84	0.30	4.88	4.66
95th-Percentile Queue Length [ft/ln]	11.60	144.11	142.96	17.54	90.24	89.25	19.87	46.77	46.10	7.51	121.96	116.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.68	13.68	13.69	6.15	11.37	11.38	18.08	23.35	23.39	17.44	29.71	30.45
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	13.07			10.52			22.27			29.38		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.36											
Intersection LOS	B											
Intersection V/C	0.468											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.730	0.000	2.542
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	500	531
d_b, Bicycle Delay [s]	17.26	17.26	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.212	2.077	1.736	1.876
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	400.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.502

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	72	62	59	236	22	461	148	272	28	22	243	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	63	62	369	23	612	388	523	28	23	443	224
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	17	17	101	6	168	107	144	8	6	122	62
Total Analysis Volume [veh/h]	79	69	68	405	25	673	426	575	31	25	487	246
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	381	1103	426	606	384	733
Degree of Utilization, x	0.57	2.50	1.10	1.47	0.07	1.76

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.37	87.49	15.22	31.49	0.21	45.63
95th-Percentile Queue Length [ft]	84.36	2187.37	380.60	787.26	5.20	1140.72
Approach Delay [s/veh]	24.11	700.37	189.06		361.03	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	400.93					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	25.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	476	53	0	926	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1259	53	0	1384	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	331	14	0	364	0	1
Total Analysis Volume [veh/h]	1325	56	0	1457	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	25.08
Movement LOS	A	A		A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.67
d_A, Approach Delay [s/veh]	0.00		0.00		25.08	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	25.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	529	0	0	926	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1312	0	0	1384	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	345	0	0	364	0	0
Total Analysis Volume [veh/h]	1381	0	0	1457	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	12.25	0.00	0.00	25.40
Movement LOS	A	A	B	A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		25.40	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	D					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

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10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.882	30.3	D
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.270	338.7	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.046	19.5	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.012	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	4.173	1,629.5	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.533	271.2	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.528	15.8	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.212	25.9	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.483	16.6	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.598	20.5	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.043	12.5	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.340	14.0	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.312	15.9	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.949	284.2	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.018	21.5	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	21.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	30.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.882

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	14	93	8	0	0	95	5	11	81	83
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	171	63	120	163	27	12	178	30	68	189	119
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	48	18	33	45	8	3	50	8	19	53	33
Total Analysis Volume [veh/h]	26	191	70	134	182	30	13	199	33	76	211	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	437	483	451	437	480	476
Degree of Utilization, x	0.50	0.15	0.77	0.49	0.07	0.88

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.70	0.50	6.59	2.60	0.22	9.53
95th-Percentile Queue Length [ft]	67.46	12.60	164.68	64.88	5.51	238.24
Approach Delay [s/veh]	17.01		32.79	17.46		44.96
Approach LOS	C		D	C		E
Intersection Delay [s/veh]	30.34					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	338.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.270

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	19	619	9	15	0	0	64	7	583	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	238	794	31	240	3	4	124	29	784	142	27
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	63	210	8	63	1	1	33	8	207	38	7
Total Analysis Volume [veh/h]	17	252	839	33	254	3	4	131	31	829	150	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	460	839	428	470	403	437	979	497
Degree of Utilization, x	0.59	1.66	0.67	0.01	0.34	0.07	2.27	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.67	48.14	4.80	0.02	1.45	0.23	73.45	0.19
95th-Percentile Queue Length [ft]	91.70	1203.48	119.98	0.48	36.28	5.70	1836.30	4.63
Approach Delay [s/veh]	249.42		26.44		15.25		580.01	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	338.73							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	636	5	8	589	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1040	5	8	1037	0	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	274	1	2	273	0	3
Total Analysis Volume [veh/h]	1095	5	8	1092	0	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.01	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	10.75	0.00	0.00	19.53
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.96	0.00	0.00	3.61
d_A, Approach Delay [s/veh]	0.00		0.08		19.53	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	0	13	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	0	3	0	0
Total Analysis Volume [veh/h]	12	0	0	14	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,629.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.173

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	631	83	11	578	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1035	83	11	1026	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	272	22	3	270	46	3
Total Analysis Volume [veh/h]	1089	87	12	1080	185	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.01	4.17	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	11.19	0.00	1629.49	1562.85
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.06	22.03	22.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.41	1.41	550.70	550.70
d_A, Approach Delay [s/veh]	0.00		0.12		1625.75	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	129.38					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	271.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.533

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	778	0	0	754	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	1151	19	1	1194	5	11	0	10	1	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	293	5	0	304	1	3	0	3	0	0	1
Total Analysis Volume [veh/h]	19	1173	19	1	1217	5	11	0	10	1	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

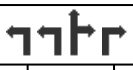
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.53	0.00	0.05	0.05	0.00	0.01
d_M, Delay for Movement [s/veh]	11.53	0.00	0.00	11.16	0.00	0.00	271.18	217.81	113.13	190.25	129.20	24.97
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	C
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.01	0.01	2.01	2.01	2.01	0.18	0.18	0.18
95th-Percentile Queue Length [ft/ln]	2.58	0.00	0.00	0.13	0.13	0.13	50.21	50.21	50.21	4.56	4.56	4.56
d_A, Approach Delay [s/veh]	0.18			0.01			195.92			80.06		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	1.87											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	487	0	0	754	0	0	0	0	0	0	291
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	774	9	6	1169	11	22	4	53	142	20	396
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	208	2	2	314	3	6	1	14	38	5	106
Total Analysis Volume [veh/h]	18	830	10	6	1254	12	24	4	57	152	21	425
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	15	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	33	33	1	32	32	3	7	7	7	12	12
g / C, Green / Cycle	0.03	0.52	0.52	0.01	0.50	0.50	0.04	0.12	0.12	0.10	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.01	0.23	0.01	0.00	0.23	0.23	0.01	0.00	0.04	0.04	0.14	0.14
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1861	1781	1870	1589	3459	1612	1589
c, Capacity [veh/h]	58	1839	821	23	1771	925	72	221	188	358	292	288
d1, Uniform Delay [s]	30.41	9.80	7.56	31.41	10.60	10.60	30.00	25.06	25.93	27.02	25.04	25.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.05	0.80	0.03	5.66	0.90	1.71	2.68	0.03	0.90	0.80	4.26	4.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.45	0.01	0.26	0.47	0.47	0.33	0.02	0.30	0.42	0.77	0.77
d, Delay for Lane Group [s/veh]	33.46	10.60	7.59	37.07	11.49	12.31	32.68	25.09	26.84	27.82	29.30	29.37
Lane Group LOS	C	B	A	D	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.29	2.67	0.05	0.12	2.87	3.21	0.40	0.05	0.81	1.08	3.40	3.36
50th-Percentile Queue Length [ft/ln]	7.24	66.71	1.30	2.96	71.84	80.33	10.00	1.34	20.17	27.03	85.06	84.06
95th-Percentile Queue Length [veh/ln]	0.52	4.80	0.09	0.21	5.17	5.78	0.72	0.10	1.45	1.95	6.12	6.05
95th-Percentile Queue Length [ft/ln]	13.03	120.07	2.34	5.33	129.31	144.59	17.99	2.41	36.31	48.65	153.10	151.30

Movement, Approach, & Intersection Results

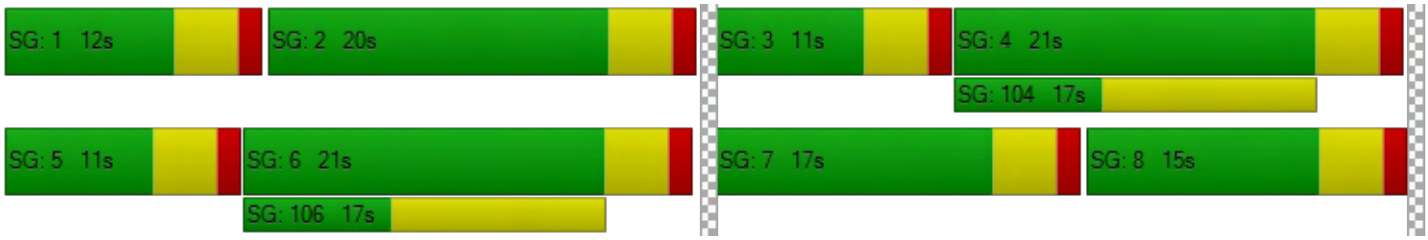
d_M, Delay for Movement [s/veh]	33.46	10.60	7.59	37.07	11.77	12.31	32.68	25.09	26.84	27.82	29.30	29.34
Movement LOS	C	B	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	11.05			11.89			28.41			28.95		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.76											
Intersection LOS	B											
Intersection V/C	0.528											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.194	2.145	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	531	344	531
d_b, Bicycle Delay [s]	18.00	17.26	21.95	17.26
l_b,int, Bicycle LOS Score for Intersection	2.267	2.259	1.700	2.546
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.212

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	291	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	560	2	5	1	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	148	1	1	0	0	3
Total Analysis Volume [veh/h]	591	2	5	1	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	67
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	67	67	67	67	67
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	40	0	44
g / C, Green / Cycle	0.22	0.22	0.60	0.00	0.66
(v / s)_i Volume / Saturation Flow Rate	0.17	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1817	1781	3560
c, Capacity [veh/h]	756	348	1091	3	2357
d1, Uniform Delay [s]	24.71	20.52	5.37	0.00	3.84
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.80	0.01	0.01	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.01	0.01	0.00	0.00
d, Delay for Lane Group [s/veh]	26.52	20.52	5.38	0.00	3.85
Lane Group LOS	C	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.35	0.02	0.03	0.00	0.02
50th-Percentile Queue Length [ft/ln]	108.83	0.60	0.75	0.00	0.50
95th-Percentile Queue Length [veh/ln]	7.78	0.04	0.05	0.00	0.04
95th-Percentile Queue Length [ft/ln]	194.38	1.08	1.35	0.00	0.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.52	20.52	5.38	5.38	0.00	3.85
Movement LOS	C	C	A	A	A	A
d_A, Approach Delay [s/veh]	26.50		5.38		3.85	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	25.88					
Intersection LOS	C					
Intersection V/C	0.212					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	33.50	33.50	33.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.142	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	419	0	0	0	0	293
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	627	8	12	32	34	383
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	175	2	3	9	9	107
Total Analysis Volume [veh/h]	701	9	13	36	38	428
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	72
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	29	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	72	72	72	72	72	72
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	18	2	46	40	62
g / C, Green / Cycle	0.26	0.26	0.02	0.63	0.55	0.87
(v / s)_i Volume / Saturation Flow Rate	0.20	0.01	0.01	0.02	0.02	0.27
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	886	407	43	1183	1035	1375
d1, Uniform Delay [s]	25.02	20.06	34.60	4.96	7.34	0.90
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.63	0.02	3.94	0.05	0.07	0.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.02	0.30	0.03	0.04	0.31
d, Delay for Lane Group [s/veh]	26.65	20.08	38.54	5.00	7.41	1.12
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.48	0.11	0.26	0.18	0.25	0.09
50th-Percentile Queue Length [ft/ln]	137.06	2.78	6.62	4.48	6.32	2.17
95th-Percentile Queue Length [veh/ln]	9.32	0.20	0.48	0.32	0.46	0.16
95th-Percentile Queue Length [ft/ln]	233.05	5.00	11.92	8.07	11.38	3.90

Movement, Approach, & Intersection Results

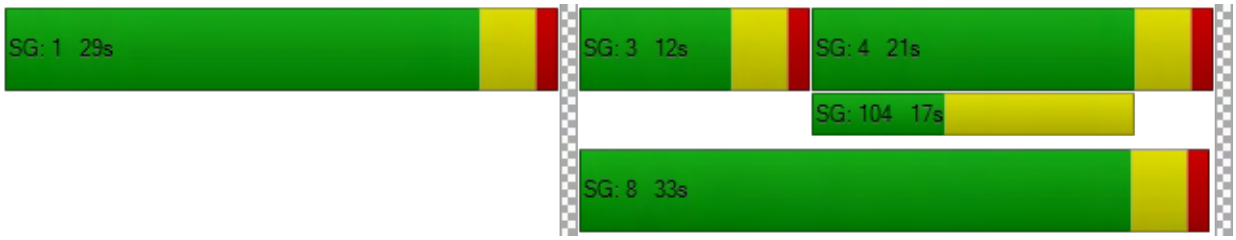
d_M, Delay for Movement [s/veh]	26.65	20.08	38.54	5.00	7.41	1.12
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	26.57		13.90		1.64	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.58					
Intersection LOS	B					
Intersection V/C	0.483					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	25.84	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.399	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	36.00	36.00	36.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.213	4.901
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.598

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	68	0	0	59	293	419	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	430	21	120	381	381	552	11	97	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	115	6	32	102	102	147	3	26	2	2	3
Total Analysis Volume [veh/h]	49	459	22	128	407	407	590	12	104	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	72
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	12	22	0	18	27	27	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	72	72	72	72	72	72	72	72	72	72	72
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	7	35	35	14	15	24	1	2
g / C, Green / Cycle	0.06	0.46	0.46	0.09	0.49	0.49	0.19	0.21	0.33	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.09	0.07	0.11	0.26	0.17	0.01	0.07	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1827	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	112	1632	837	166	1739	776	673	401	529	23	55
d1, Uniform Delay [s]	32.63	11.64	11.65	32.02	10.67	12.70	28.25	22.43	17.22	35.33	34.19
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	0.27	0.52	7.44	0.32	2.52	3.83	0.03	0.18	6.00	3.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.19	0.20	0.77	0.23	0.52	0.88	0.03	0.20	0.26	0.35
d, Delay for Lane Group [s/veh]	35.32	11.90	12.17	39.46	10.99	15.23	32.09	22.46	17.40	41.33	37.96
Lane Group LOS	D	B	B	D	B	B	C	C	B	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.83	1.24	1.35	2.30	1.50	3.93	5.07	0.16	1.20	0.14	0.37
50th-Percentile Queue Length [ft/ln]	20.70	31.06	33.69	57.42	37.47	98.30	126.84	3.97	29.90	3.49	9.36
95th-Percentile Queue Length [veh/ln]	1.49	2.24	2.43	4.13	2.70	7.08	8.77	0.29	2.15	0.25	0.67
95th-Percentile Queue Length [ft/ln]	37.26	55.91	60.63	103.36	67.45	176.93	219.19	7.14	53.82	6.29	16.85

Movement, Approach, & Intersection Results

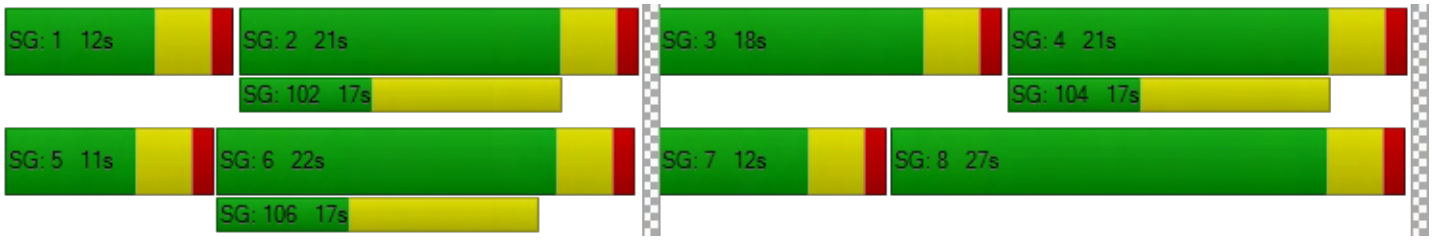
d_M, Delay for Movement [s/veh]	35.32	11.99	12.17	39.46	10.99	15.23	32.09	22.46	17.40	41.33	37.96	37.96
Movement LOS	D	B	B	D	B	B	C	C	B	D	D	D
d_A, Approach Delay [s/veh]	14.15			16.69			29.76			38.77		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	20.52											
Intersection LOS	C											
Intersection V/C	0.598											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	25.84	25.84	25.84
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.093	2.630	1.989
Crosswalk LOS	F	C	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	472	500	639	472
d_b, Bicycle Delay [s]	21.01	20.25	16.67	21.01
l_b,int, Bicycle LOS Score for Intersection	1.851	2.337	2.725	1.601
Bicycle LOS	A	B	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	66	57	2	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	466	474	14	22	17
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	119	121	4	6	4
Total Analysis Volume [veh/h]	17	475	483	14	22	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.04	0.02
d_M, Delay for Movement [s/veh]	8.44	0.00	0.00	0.00	12.46	10.16
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.21	0.21
95th-Percentile Queue Length [ft/ln]	1.22	0.00	0.00	0.00	5.23	5.23
d_A, Approach Delay [s/veh]	0.29		0.00		11.46	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.340

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	63	0	3	54	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	397	18	116	408	57	51	67	34	25	77	121
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	103	5	30	106	15	13	17	9	7	20	31
Total Analysis Volume [veh/h]	37	413	19	121	425	59	53	70	35	26	80	126
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	33	33	16	9	9	16	7	7
g / C, Green / Cycle	0.63	0.47	0.47	0.63	0.52	0.52	0.24	0.14	0.14	0.24	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12	0.12	0.11	0.13	0.13	0.04	0.04	0.02	0.02	0.04	0.08
s, saturation flow rate [veh/h]	1030	1870	1841	1125	1870	1791	1508	1870	1589	1467	1870	1589
c, Capacity [veh/h]	742	879	866	804	960	920	489	261	222	487	212	180
d1, Uniform Delay [s]	4.70	10.20	10.21	4.91	8.76	8.77	18.95	24.73	24.34	18.64	26.40	27.45
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	0.67	0.68	0.09	0.65	0.68	0.10	0.55	0.33	0.05	1.11	4.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.25	0.25	0.15	0.26	0.26	0.11	0.27	0.16	0.05	0.38	0.70
d, Delay for Lane Group [s/veh]	4.83	10.87	10.89	5.00	9.41	9.45	19.04	25.27	24.67	18.69	27.52	32.32
Lane Group LOS	A	B	B	A	A	A	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	1.60	1.58	0.41	1.61	1.56	0.60	0.96	0.47	0.26	1.07	1.89
50th-Percentile Queue Length [ft/ln]	3.47	39.93	39.57	10.16	40.19	38.96	15.12	24.06	11.86	6.55	26.75	47.22
95th-Percentile Queue Length [veh/ln]	0.25	2.87	2.85	0.73	2.89	2.81	1.09	1.73	0.85	0.47	1.93	3.40
95th-Percentile Queue Length [ft/ln]	6.25	71.87	71.22	18.29	72.35	70.13	27.22	43.30	21.34	11.79	48.15	84.99

Movement, Approach, & Intersection Results

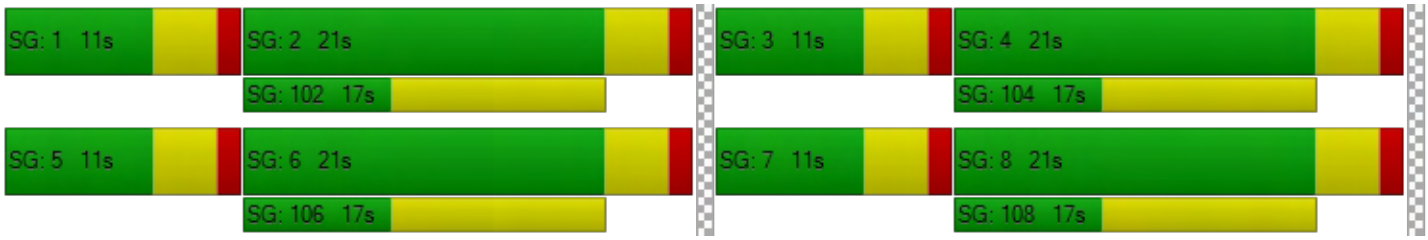
d_M, Delay for Movement [s/veh]	4.83	10.88	10.89	5.00	9.42	9.45	19.04	25.27	24.67	18.69	27.52	32.32
Movement LOS	A	B	B	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.40			8.54			23.05			29.14		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	13.97											
Intersection LOS	B											
Intersection V/C	0.340											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	21.95	21.95	21.95
l_p,int, Pedestrian LOS Score for Intersection	2.567	2.642	2.209	2.379
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	1.947	2.059	1.820	1.942
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.312

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	60	0	3	51	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	369	28	77	395	35	30	142	42	34	179	76
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	98	7	20	105	9	8	38	11	9	48	20
Total Analysis Volume [veh/h]	73	393	30	82	420	37	32	151	45	36	190	81
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	34	34	43	34	34	15	7	7	15	8	8
g / C, Green / Cycle	0.66	0.51	0.51	0.66	0.52	0.52	0.22	0.11	0.11	0.22	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.11	0.07	0.12	0.12	0.02	0.05	0.06	0.03	0.07	0.08
s, saturation flow rate [veh/h]	1077	1870	1824	1107	1870	1817	1346	1870	1728	1408	1870	1687
c, Capacity [veh/h]	796	953	930	819	961	934	385	207	191	420	215	194
d1, Uniform Delay [s]	4.33	8.99	9.00	4.33	8.94	8.94	20.46	27.68	27.75	20.41	28.05	28.16
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.54	0.56	0.05	0.59	0.61	0.09	1.73	2.04	0.09	3.27	4.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.22	0.23	0.10	0.24	0.24	0.08	0.48	0.50	0.09	0.65	0.68
d, Delay for Lane Group [s/veh]	4.56	9.54	9.56	4.38	9.53	9.56	20.55	29.41	29.79	20.50	31.31	32.29
Lane Group LOS	A	A	A	A	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	1.45	1.42	0.25	1.56	1.53	0.36	1.45	1.41	0.40	2.11	2.04
50th-Percentile Queue Length [ft/ln]	6.50	36.14	35.58	6.22	39.05	38.31	8.97	36.13	35.33	10.09	52.69	50.95
95th-Percentile Queue Length [veh/ln]	0.47	2.60	2.56	0.45	2.81	2.76	0.65	2.60	2.54	0.73	3.79	3.67
95th-Percentile Queue Length [ft/ln]	11.70	65.06	64.05	11.19	70.28	68.96	16.14	65.03	63.60	18.16	94.85	91.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.56	9.55	9.56	4.38	9.54	9.56	20.55	29.54	29.79	20.50	31.57	32.29
Movement LOS	A	A	A	A	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.81			8.76			28.33			30.46		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.86											
Intersection LOS	B											
Intersection V/C	0.312											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	22.92	0.00	22.92
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.595	0.000	2.513
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	515	515	515	515
d_b, Bicycle Delay [s]	18.19	18.19	18.19	18.19
l_b,int, Bicycle LOS Score for Intersection	1.969	2.004	1.748	1.813
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	284.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.949

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	6	8	63	13	131	153	521	18	13	504	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	8	149	14	271	258	701	18	14	689	130
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	2	42	4	76	72	196	5	4	193	36
Total Analysis Volume [veh/h]	11	7	9	167	16	303	289	785	20	16	772	146
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	392	526	444	805	436	918
Degree of Utilization, x	0.07	0.92	0.65	1.70	0.04	1.95

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.22	11.23	4.54	47.69	0.11	61.49
95th-Percentile Queue Length [ft]	5.53	280.64	113.48	1192.33	2.85	1537.15
Approach Delay [s/veh]	12.87	48.73	258.10		445.19	
Approach LOS	B	E	F		F	
Intersection Delay [s/veh]	284.22					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	21.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	710	68	0	754	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1114	68	0	1202	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	293	18	0	316	0	1
Total Analysis Volume [veh/h]	1173	72	0	1265	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	21.45
Movement LOS	A	A		A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.37
d_A, Approach Delay [s/veh]	0.00		0.00		21.45	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.03					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	778	0	0	754	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1182	0	0	1202	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	311	0	0	316	0	0
Total Analysis Volume [veh/h]	1244	0	0	1265	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	11.43	0.00	0.00	21.94
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		21.94	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	C					

Coachillin Industrial Park Parcels 30-31

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Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

Report File: G:\...\AM OYP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.462	14.6	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Thru	0.600	32.5	C
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.924	13.5	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.038	16.9	C
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	1.014	35.9	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	11	11	99	38	0	0	120	21	23	41	32
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	156	110	151	306	31	23	217	56	160	97	54
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	47	33	45	92	9	7	65	17	48	29	16
Total Analysis Volume [veh/h]	14	187	132	181	366	37	28	260	67	191	116	65
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	15	0	0	15	0	0	45	0	0	45	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	23	23	23	23
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.38	0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.17	0.22	0.02	0.18	0.18	0.10
s, saturation flow rate [veh/h]	982	1743	1060	1840	1203	1805	1053	1759
c, Capacity [veh/h]	409	839	464	885	467	696	356	678
d1, Uniform Delay [s]	15.16	9.88	16.53	10.34	15.56	13.84	22.08	12.63
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	1.31	2.46	1.69	0.05	0.49	1.26	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.38	0.39	0.46	0.06	0.47	0.54	0.27
d, Delay for Lane Group [s/veh]	15.32	11.20	19.00	12.03	15.62	14.33	23.34	12.84
Lane Group LOS	B	B	B	B	B	B	C	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	2.11	1.90	2.79	0.23	2.59	2.26	1.34
50th-Percentile Queue Length [ft/ln]	3.19	52.63	47.38	69.83	5.81	64.68	56.56	33.60
95th-Percentile Queue Length [veh/ln]	0.23	3.79	3.41	5.03	0.42	4.66	4.07	2.42
95th-Percentile Queue Length [ft/ln]	5.74	94.74	85.28	125.69	10.45	116.42	101.81	60.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.32	11.20	11.20	19.00	12.03	12.03	15.62	14.33	14.33	23.34	12.84	12.84
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	11.37			14.19			14.43			18.23		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.58											
Intersection LOS	B											
Intersection V/C	0.462											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	367	1367	1367
d_b, Bicycle Delay [s]	20.01	20.01	3.01	3.01
l_b,int, Bicycle LOS Score for Intersection	2.109	2.523	2.145	2.173
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	32.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.600

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	16	814	40	41	0	0	100	17	314	32	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	225	943	59	484	18	4	184	71	688	110	29
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	63	263	16	135	5	1	51	20	192	31	8
Total Analysis Volume [veh/h]	25	251	1051	66	540	20	4	205	79	767	123	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	88
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	36	36	11	28	0	30	14	0	27	11	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	88	88	88	88	88	88	88	88	88	88	88
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	33	60	6	36	36	1	10	10	23	32
g / C, Green / Cycle	0.04	0.38	0.69	0.06	0.41	0.41	0.01	0.11	0.11	0.26	0.37
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.66	0.04	0.29	0.01	0.00	0.11	0.05	0.22	0.09
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1804
c, Capacity [veh/h]	66	711	1092	115	762	648	14	210	179	904	660
d1, Uniform Delay [s]	41.42	19.54	12.75	40.04	21.75	15.66	43.43	38.96	36.50	30.89	19.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.53	1.38	19.62	4.50	5.52	0.09	10.00	23.19	1.71	2.34	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.35	0.96	0.58	0.71	0.03	0.28	0.97	0.44	0.85	0.23
d, Delay for Lane Group [s/veh]	44.94	20.92	32.37	44.54	27.26	15.75	53.43	62.15	38.21	33.23	19.57
Lane Group LOS	D	C	C	D	C	B	D	E	D	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.56	3.50	17.25	1.44	9.12	0.23	0.12	5.42	1.55	7.21	1.98
50th-Percentile Queue Length [ft/ln]	14.00	87.57	431.32	35.91	228.08	5.70	3.03	135.62	38.85	180.37	49.46
95th-Percentile Queue Length [veh/ln]	1.01	6.30	24.06	2.59	14.08	0.41	0.22	9.24	2.80	11.62	3.56
95th-Percentile Queue Length [ft/ln]	25.21	157.62	601.61	64.64	351.92	10.27	5.46	231.11	69.93	290.50	89.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.94	20.92	32.37	44.54	27.26	15.75	53.43	62.15	38.21	33.23	19.57	19.57
Movement LOS	D	C	C	D	C	B	D	E	D	C	B	B
d_A, Approach Delay [s/veh]	30.44			28.72			55.46			30.93		
Approach LOS	C			C			E			C		
d_I, Intersection Delay [s/veh]	32.52											
Intersection LOS	C											
Intersection V/C	0.600											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	727	545	227	159
d_b, Bicycle Delay [s]	17.82	23.27	34.57	37.28
l_b,int, Bicycle LOS Score for Intersection	3.749	2.593	2.035	3.081
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.924

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	877	168	16	279	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1259	168	16	1238	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	331	44	4	326	18	1
Total Analysis Volume [veh/h]	1325	177	17	1303	72	3
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	109	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	105	105	105	7
g / C, Green / Cycle	0.88	0.88	0.88	0.05
(v / s)_i Volume / Saturation Flow Rate	0.82	0.05	0.70	0.04
s, saturation flow rate [veh/h]	1832	349	1870	1772
c, Capacity [veh/h]	1609	164	1642	98
d1, Uniform Delay [s]	4.93	31.19	2.93	55.90
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.39	1.27	4.03	11.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.10	0.79	0.77
d, Delay for Lane Group [s/veh]	16.32	32.47	6.96	67.82
Lane Group LOS	B	C	A	E
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.36	0.40	1.98	2.56
50th-Percentile Queue Length [ft/ln]	133.98	10.12	49.49	64.07
95th-Percentile Queue Length [veh/ln]	9.16	0.73	3.56	4.61
95th-Percentile Queue Length [ft/ln]	228.90	18.21	89.08	115.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.32	16.32	32.47	6.96	67.82	67.82
Movement LOS	B	B	C	A	E	E
d_A, Approach Delay [s/veh]	16.32		7.29		67.82	
Approach LOS	B		A		E	
d_I, Intersection Delay [s/veh]	13.54					
Intersection LOS	B					
Intersection V/C	0.924					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
I_b,int, Bicycle LOS Score for Intersection	6.611	6.310	4.256
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	0	0	12	0	0	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1088	0	0	347	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1458	18	4	1288	15	0	0	12	0	0	11
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	408	5	1	361	4	0	0	3	0	0	3
Total Analysis Volume [veh/h]	22	1633	20	4	1442	17	0	0	13	0	0	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.04	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	13.23	0.00	0.00	14.41	0.00	0.00	0.00	0.00	15.23	0.00	0.00	16.94
Movement LOS	B	A	A	B	A	A			C			C
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.12
95th-Percentile Queue Length [ft/ln]	3.76	0.00	0.00	0.78	0.00	0.00	0.00	0.00	2.76	0.00	0.00	2.98
d_A, Approach Delay [s/veh]	0.17			0.04			15.23			16.94		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.24											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.014

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	31	30	76	99	180	693	137	125	97	141	329
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	32	30	324	100	498	828	248	125	97	370	469
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	9	9	95	29	146	243	73	37	28	108	137
Total Analysis Volume [veh/h]	40	38	35	380	117	584	971	291	147	114	434	550
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	11	0	22	22	22	28	25	0	27	24	24
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	4	7	18	21	49	24	37	7	20	42
g / C, Green / Cycle	0.05	0.08	0.21	0.24	0.57	0.28	0.43	0.08	0.23	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.21	0.06	0.37	0.28	0.25	0.06	0.23	0.35
s, saturation flow rate [veh/h]	1781	1724	1781	1870	1589	3459	1765	1781	1870	1589
c, Capacity [veh/h]	91	145	377	458	912	976	764	148	438	783
d1, Uniform Delay [s]	39.19	37.28	33.54	25.89	12.22	30.48	18.19	38.21	32.51	16.74
k, delay calibration	0.11	0.50	0.16	0.50	0.48	0.11	0.14	0.11	0.20	0.44
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	11.98	28.12	1.35	3.32	12.28	0.89	8.14	25.31	4.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.50	1.01	0.26	0.64	1.00	0.57	0.77	0.99	0.70
d, Delay for Lane Group [s/veh]	42.49	49.26	61.65	27.24	15.53	42.77	19.09	46.36	57.82	21.32
Lane Group LOS	D	D	F	C	B	D	B	D	E	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.88	1.91	9.93	1.90	6.43	10.40	5.64	2.48	11.02	7.68
50th-Percentile Queue Length [ft/ln]	22.08	47.83	248.32	47.44	160.73	259.91	140.90	62.11	275.60	192.03
95th-Percentile Queue Length [veh/ln]	1.59	3.44	15.16	3.42	10.59	15.68	9.53	4.47	16.47	12.23
95th-Percentile Queue Length [ft/ln]	39.74	86.09	379.03	85.39	264.69	392.11	238.23	111.80	411.73	305.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.49	49.26	49.26	61.65	27.24	15.53	42.77	19.09	19.09	46.36	57.82	21.32
Movement LOS	D	D	D	F	C	B	D	B	B	D	E	C
d_A, Approach Delay [s/veh]	46.86			33.01			35.40			38.35		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	35.93											
Intersection LOS	D											
Intersection V/C	1.014											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	165	424	494	471
d_b, Bicycle Delay [s]	35.79	26.41	24.09	24.85
l_b,int, Bicycle LOS Score for Intersection	1.746	3.343	3.884	3.371
Bicycle LOS	A	C	D	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\PM OY MIT.vistro

Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

Report File: G:\...\PM OYP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	EB Left	0.555	14.0	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.872	22.0	C
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.941	24.6	C
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Right	0.069	15.7	C
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	NB Thru	1.018	32.6	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	26	21	50	10	0	0	55	4	14	98	88
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	342	137	85	168	17	23	162	20	101	180	152
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	89	36	22	44	4	6	42	5	26	47	40
Total Analysis Volume [veh/h]	59	357	143	89	175	18	24	169	21	105	188	158
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.28	0.10	0.10	0.02	0.10	0.09	0.20
s, saturation flow rate [veh/h]	1190	1780	898	1840	1035	1834	1193	1731
c, Capacity [veh/h]	731	1051	483	1086	178	507	305	479
d1, Uniform Delay [s]	7.46	7.01	11.83	5.63	27.34	17.52	23.50	19.63
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	1.55	0.84	0.36	0.34	0.46	0.67	2.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.48	0.18	0.18	0.13	0.37	0.34	0.72
d, Delay for Lane Group [s/veh]	7.68	8.56	12.67	5.99	27.68	17.98	24.17	21.71
Lane Group LOS	A	A	B	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.30	2.40	0.70	0.71	0.30	1.77	1.24	3.86
50th-Percentile Queue Length [ft/ln]	7.42	59.99	17.40	17.81	7.61	44.25	31.08	96.39
95th-Percentile Queue Length [veh/ln]	0.53	4.32	1.25	1.28	0.55	3.19	2.24	6.94
95th-Percentile Queue Length [ft/ln]	13.36	107.98	31.32	32.05	13.71	79.65	55.94	173.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.68	8.56	8.56	12.67	5.99	5.99	27.68	17.98	17.98	24.17	21.71	21.71
Movement LOS	A	A	A	B	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	8.46			8.10			19.06			22.29		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.04											
Intersection LOS	B											
Intersection V/C	0.555											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	233	1500	1500
d_b, Bicycle Delay [s]	23.41	23.41	1.88	1.88
l_b,int, Bicycle LOS Score for Intersection	2.482	2.025	1.913	2.304
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.872

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	34	400	8	20	0	0	40	8	666	80	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	467	730	37	249	0	5	128	24	858	177	65
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	120	188	10	64	0	1	33	6	221	46	17
Total Analysis Volume [veh/h]	28	480	751	38	256	0	5	132	25	883	182	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	68
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	22	22	11	22	0	20	11	0	24	15	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	68	68	68	68	68	68	68	68	68	68	68
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	22	46	4	23	23	1	7	7	20	26
g / C, Green / Cycle	0.04	0.32	0.67	0.05	0.33	0.33	0.01	0.10	0.10	0.29	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.47	0.02	0.14	0.00	0.00	0.07	0.02	0.26	0.14
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1785
c, Capacity [veh/h]	79	599	1069	98	619	526	20	181	154	1015	677
d1, Uniform Delay [s]	31.66	21.21	6.94	31.15	17.71	0.00	33.47	29.96	28.29	22.88	15.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.65	10.80	3.87	2.50	2.04	0.00	6.45	5.55	0.49	2.45	0.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.80	0.70	0.39	0.41	0.00	0.25	0.73	0.16	0.87	0.37
d, Delay for Lane Group [s/veh]	34.31	32.01	10.80	33.65	19.75	0.00	39.92	35.52	28.78	25.33	15.63
Lane Group LOS	C	C	B	C	B	A	D	D	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.46	7.51	4.24	0.61	2.91	0.00	0.11	2.13	0.35	5.89	2.29
50th-Percentile Queue Length [ft/ln]	11.48	187.73	106.02	15.18	72.87	0.00	2.73	53.37	8.82	147.15	57.26
95th-Percentile Queue Length [veh/ln]	0.83	12.00	7.62	1.09	5.25	0.00	0.20	3.84	0.64	9.86	4.12
95th-Percentile Queue Length [ft/ln]	20.66	300.09	190.46	27.32	131.17	0.00	4.92	96.06	15.88	246.62	103.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.31	32.01	10.80	33.65	19.75	0.00	39.92	35.52	28.78	25.33	15.63	15.63
Movement LOS	C	C	B	C	B	A	D	D	C	C	B	B
d_A, Approach Delay [s/veh]	19.41			21.54			34.62			23.20		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	22.00											
Intersection LOS	C											
Intersection V/C	0.872											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	529	529	206	324
d_b, Bicycle Delay [s]	18.38	18.38	27.36	23.89
l_b,int, Bicycle LOS Score for Intersection	3.637	2.045	1.827	3.427
Bicycle LOS	D	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.941

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	385	95	12	688	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1168	95	12	1146	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	307	25	3	302	63	4
Total Analysis Volume [veh/h]	1229	100	13	1206	251	16
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	108
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	21	0	0	21	87	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	108	108	108	108
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	81	81	81	18
g / C, Green / Cycle	0.75	0.75	0.75	0.17
(v / s)_i Volume / Saturation Flow Rate	0.72	0.03	0.64	0.15
s, saturation flow rate [veh/h]	1845	412	1870	1768
c, Capacity [veh/h]	1394	115	1413	301
d1, Uniform Delay [s]	11.50	43.34	9.07	43.67
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.25	1.98	6.74	8.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.11	0.85	0.89
d, Delay for Lane Group [s/veh]	26.76	45.32	15.81	52.33
Lane Group LOS	C	D	B	D
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	21.68	0.36	13.93	7.63
50th-Percentile Queue Length [ft/ln]	542.00	9.11	348.17	190.72
95th-Percentile Queue Length [veh/ln]	29.32	0.66	20.05	12.16
95th-Percentile Queue Length [ft/ln]	732.90	16.39	501.17	303.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.76	26.76	45.32	15.81	52.33	52.33
Movement LOS	C	C	D	B	D	D
d_A, Approach Delay [s/veh]	26.76		16.12		52.33	
Approach LOS	C		B		D	
d_I, Intersection Delay [s/veh]	24.58					
Intersection LOS	C					
Intersection V/C	0.941					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	54.00	54.00	54.00
l_b,int, Bicycle LOS Score for Intersection	6.325	6.144	4.573
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.069

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	0	0	22	0	0	4
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	529	0	0	926	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1302	4	0	1380	3	0	0	24	0	0	4
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	344	1	0	365	1	0	0	6	0	0	1
Total Analysis Volume [veh/h]	11	1376	4	0	1459	3	0	0	25	0	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	2	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.07	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	13.05	0.00	0.00	12.31	0.00	0.00	0.00	0.00	15.66	0.00	0.00	14.39
Movement LOS	B	A	A	B	A	A			C			B
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.52	0.00	0.00	0.78
d_A, Approach Delay [s/veh]	0.10			0.00			15.66			14.39		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	0.21											
Intersection LOS	C											

Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	32.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.018

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	72	62	59	236	22	461	148	272	28	22	243	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	63	62	369	23	612	388	523	28	23	443	224
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	17	17	101	6	168	107	144	8	6	122	62
Total Analysis Volume [veh/h]	79	69	68	405	25	673	426	575	31	25	487	246
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	63
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	11	0	19	19	19	12	22	0	11	21	21
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	63	63	63	63	63	63	63	63	63	63
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	7	15	17	29	8	22	2	17	36
g / C, Green / Cycle	0.08	0.11	0.24	0.27	0.46	0.13	0.36	0.04	0.27	0.57
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.23	0.01	0.42	0.12	0.33	0.01	0.26	0.15
s, saturation flow rate [veh/h]	1781	1719	1781	1870	1589	3459	1853	1781	1870	1589
c, Capacity [veh/h]	149	195	424	501	729	440	658	71	500	905
d1, Uniform Delay [s]	27.70	26.91	23.68	17.12	16.03	27.39	19.49	29.48	22.86	6.92
k, delay calibration	0.11	0.50	0.11	0.50	0.37	0.11	0.22	0.11	0.12	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.92	19.04	12.19	0.19	15.27	13.91	10.86	2.97	14.24	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.70	0.96	0.05	0.92	0.97	0.92	0.35	0.97	0.27
d, Delay for Lane Group [s/veh]	30.61	45.95	35.87	17.31	31.29	41.30	30.35	32.45	37.10	7.09
Lane Group LOS	C	D	D	B	C	D	C	C	D	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.21	2.92	6.32	0.25	9.48	3.58	8.51	0.38	7.76	1.06
50th-Percentile Queue Length [ft/ln]	30.21	72.89	157.98	6.24	237.02	89.61	212.81	9.57	194.04	26.50
95th-Percentile Queue Length [veh/ln]	2.18	5.25	10.44	0.45	14.53	6.45	13.30	0.69	12.33	1.91
95th-Percentile Queue Length [ft/ln]	54.38	131.20	261.04	11.23	363.26	161.29	332.43	17.22	308.26	47.70

Movement, Approach, & Intersection Results

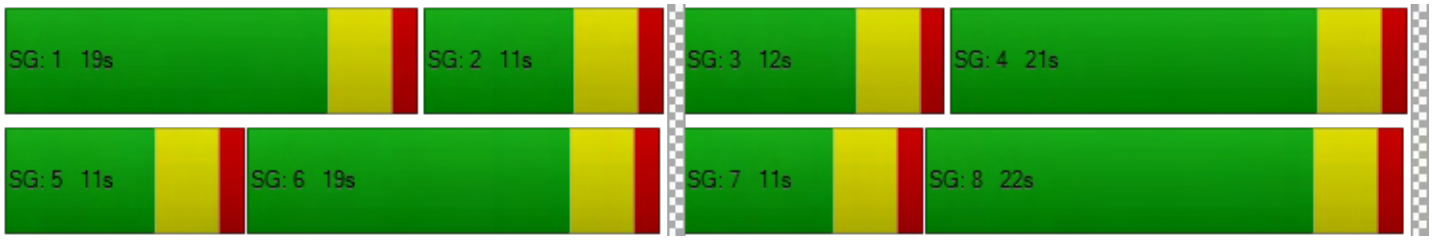
d_M, Delay for Movement [s/veh]	30.61	45.95	45.95	35.87	17.31	31.29	41.30	30.35	30.35	32.45	37.10	7.09
Movement LOS	C	D	D	D	B	C	D	C	C	C	D	A
d_A, Approach Delay [s/veh]	40.34			32.66			34.87			27.21		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	32.60											
Intersection LOS	C											
Intersection V/C	1.018											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	222	476	571	540
d_b, Bicycle Delay [s]	24.89	18.29	16.07	16.79
l_b,int, Bicycle LOS Score for Intersection	1.916	3.380	3.262	2.810
Bicycle LOS	A	C	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\SAT OY MIT.vistro

Scenario 2 Opening Year (2023) Plus Project Without Amphitheater Event

Report File: G:\...\SAT OYP MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	EB Left	0.395	14.4	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.837	19.0	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.827	13.0	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Right	0.053	13.7	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.884	27.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.395

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	14	93	8	0	0	95	5	11	81	83
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	171	63	120	163	27	12	178	30	68	189	119
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	48	18	33	45	8	3	50	8	19	53	33
Total Analysis Volume [veh/h]	26	191	70	134	182	30	13	199	33	76	211	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	16	16	16	16
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.27	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.12	0.12	0.01	0.13	0.07	0.20
s, saturation flow rate [veh/h]	1169	1785	1118	1824	1036	1824	1148	1751
c, Capacity [veh/h]	726	1069	682	1093	171	488	261	469
d1, Uniform Delay [s]	7.13	5.65	8.44	5.46	27.46	18.43	24.74	20.02
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.54	0.64	0.40	0.19	0.72	0.61	2.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.24	0.20	0.19	0.08	0.48	0.29	0.73
d, Delay for Lane Group [s/veh]	7.22	6.19	9.08	5.86	27.64	19.15	25.35	22.27
Lane Group LOS	A	A	A	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.13	0.98	0.77	0.76	0.16	2.27	0.93	3.89
50th-Percentile Queue Length [ft/ln]	3.13	24.40	19.32	18.99	4.11	56.81	23.14	97.34
95th-Percentile Queue Length [veh/ln]	0.23	1.76	1.39	1.37	0.30	4.09	1.67	7.01
95th-Percentile Queue Length [ft/ln]	5.64	43.92	34.78	34.18	7.40	102.26	41.66	175.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.22	6.19	6.19	9.08	5.86	5.86	27.64	19.15	19.15	25.35	22.27	22.27
Movement LOS	A	A	A	A	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	6.29			7.11			19.60			22.83		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.37											
Intersection LOS	B											
Intersection V/C	0.395											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	233	1500	1500
d_b, Bicycle Delay [s]	23.41	23.41	1.88	1.88
l_b,int, Bicycle LOS Score for Intersection	2.033	2.131	1.964	2.253
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.837

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	19	619	9	15	0	0	64	7	583	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	238	794	31	240	3	4	124	29	784	142	27
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	63	210	8	63	1	1	33	8	207	38	7
Total Analysis Volume [veh/h]	17	252	839	33	254	3	4	131	31	829	150	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	11	11	11	0	31	11	0	31	11	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	15	42	3	17	17	1	7	7	23	29
g / C, Green / Cycle	0.03	0.24	0.66	0.05	0.26	0.26	0.01	0.10	0.10	0.36	0.45
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.53	0.02	0.14	0.00	0.00	0.07	0.02	0.24	0.10
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1818
c, Capacity [veh/h]	55	444	1045	91	482	410	17	196	166	1237	824
d1, Uniform Delay [s]	30.48	21.59	7.98	29.49	20.49	17.74	31.60	27.70	26.27	17.44	10.67
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.14	5.17	6.53	2.42	4.08	0.03	6.99	3.91	0.53	0.64	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.57	0.80	0.36	0.53	0.01	0.24	0.67	0.19	0.67	0.22
d, Delay for Lane Group [s/veh]	33.62	26.76	14.51	31.91	24.57	17.77	38.60	31.61	26.81	18.07	10.80
Lane Group LOS	C	C	B	C	C	B	D	C	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.28	3.42	5.54	0.50	3.25	0.03	0.09	1.90	0.40	4.15	1.16
50th-Percentile Queue Length [ft/ln]	6.89	85.50	138.62	12.38	81.21	0.78	2.19	47.38	10.06	103.73	29.09
95th-Percentile Queue Length [veh/ln]	0.50	6.16	9.41	0.89	5.85	0.06	0.16	3.41	0.72	7.47	2.09
95th-Percentile Queue Length [ft/ln]	12.40	153.89	235.17	22.28	146.17	1.41	3.94	85.28	18.10	186.72	52.36

Movement, Approach, & Intersection Results

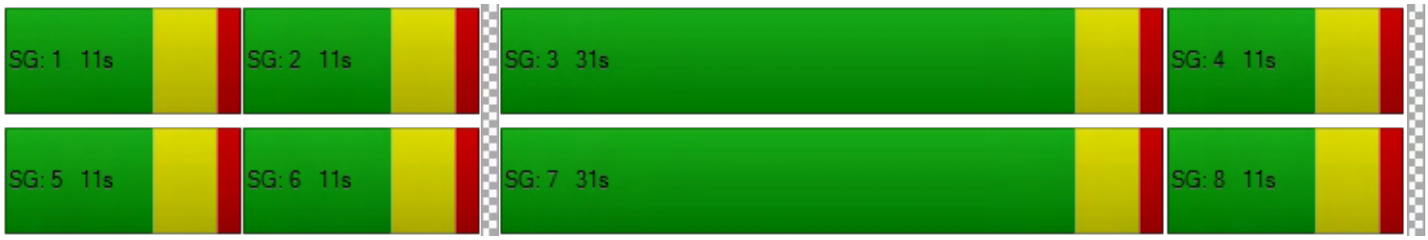
d_M, Delay for Movement [s/veh]	33.62	26.76	14.51	31.91	24.57	17.77	38.60	31.61	26.81	18.07	10.80	10.80
Movement LOS	C	C	B	C	C	B	D	C	C	B	B	B
d_A, Approach Delay [s/veh]	17.59			25.34			30.88			16.78		
Approach LOS	B			C			C			B		
d_I, Intersection Delay [s/veh]	19.00											
Intersection LOS	B											
Intersection V/C	0.837											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	219	219	219	219
d_b, Bicycle Delay [s]	25.38	25.38	25.38	25.38
l_b,int, Bicycle LOS Score for Intersection	3.388	2.038	1.834	3.223
Bicycle LOS	C	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	631	83	11	578	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1035	83	11	1026	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	272	22	3	270	46	3
Total Analysis Volume [veh/h]	1089	87	12	1080	185	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	84
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	73	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	84	84	84	84
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	65	65	65	11
g / C, Green / Cycle	0.77	0.77	0.77	0.14
(v / s)_i Volume / Saturation Flow Rate	0.64	0.03	0.58	0.11
s, saturation flow rate [veh/h]	1846	477	1870	1769
c, Capacity [veh/h]	1420	242	1438	240
d1, Uniform Delay [s]	6.16	19.44	5.29	35.24
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.70	0.39	3.65	6.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.05	0.75	0.82
d, Delay for Lane Group [s/veh]	11.86	19.83	8.95	41.96
Lane Group LOS	B	B	A	D
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.66	0.17	4.94	4.25
50th-Percentile Queue Length [ft/ln]	166.40	4.23	123.45	106.36
95th-Percentile Queue Length [veh/ln]	10.89	0.30	8.58	7.64
95th-Percentile Queue Length [ft/ln]	272.18	7.62	214.56	190.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.86	11.86	19.83	8.95	41.96	41.96
Movement LOS	B	B	B	A	D	D
d_A, Approach Delay [s/veh]	11.86		9.07		41.96	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	13.02					
Intersection LOS	B					
Intersection V/C	0.827					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	42.00	42.00	42.00
l_b,int, Bicycle LOS Score for Intersection	6.073	5.934	4.456
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.053

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	0	0	21	0	0	3
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	778	0	0	754	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	1151	19	1	1194	5	0	0	23	0	0	3
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	293	5	0	304	1	0	0	6	0	0	1
Total Analysis Volume [veh/h]	19	1173	19	1	1217	5	0	0	23	0	0	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	11.58	0.00	0.00	11.20	0.00	0.00	0.00	0.00	13.70	0.00	0.00	13.11
Movement LOS	B	A	A	B	A	A			B			B
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	2.60	0.00	0.00	0.13	0.00	0.00	0.00	0.00	4.16	0.00	0.00	0.51
d_A, Approach Delay [s/veh]	0.18			0.01			13.70			13.11		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.24											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.884

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	6	8	63	13	131	153	521	18	13	504	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	8	149	14	271	258	701	18	14	689	130
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	2	42	4	76	72	196	5	4	193	36
Total Analysis Volume [veh/h]	11	7	9	167	16	303	289	785	20	16	772	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	11	0	11	11	11	11	32	0	11	32	32
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	1	7	7	13	24	7	33	2	28	39
g / C, Green / Cycle	0.02	0.11	0.11	0.20	0.37	0.11	0.51	0.03	0.43	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.09	0.01	0.19	0.08	0.43	0.01	0.41	0.09
s, saturation flow rate [veh/h]	1781	1701	1781	1870	1589	3459	1862	1781	1870	1589
c, Capacity [veh/h]	35	187	192	371	584	373	947	48	801	950
d1, Uniform Delay [s]	31.44	25.98	28.56	21.07	16.06	28.24	13.82	31.04	18.10	5.80
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.34	0.11	0.37	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.07	0.89	11.38	0.22	0.71	3.48	6.69	3.91	20.09	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.09	0.87	0.04	0.52	0.78	0.85	0.33	0.96	0.15
d, Delay for Lane Group [s/veh]	36.52	26.88	39.94	21.29	16.78	31.73	20.50	34.96	38.19	5.87
Lane Group LOS	D	C	D	C	B	C	C	C	D	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.21	0.26	2.83	0.19	2.89	2.09	8.60	0.27	12.73	0.54
50th-Percentile Queue Length [ft/ln]	5.33	6.50	70.87	4.79	72.34	52.17	215.10	6.78	318.20	13.45
95th-Percentile Queue Length [veh/ln]	0.38	0.47	5.10	0.34	5.21	3.76	13.41	0.49	18.58	0.97
95th-Percentile Queue Length [ft/ln]	9.59	11.69	127.57	8.62	130.21	93.91	335.36	12.21	464.48	24.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.52	26.88	26.88	39.94	21.29	16.78	31.73	20.50	20.50	34.96	38.19	5.87
Movement LOS	D	C	C	D	C	B	C	C	C	C	D	A
d_A, Approach Delay [s/veh]	30.81			24.88			23.47			33.08		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.35											
Intersection LOS	C											
Intersection V/C	0.884											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	215	215	862	862
d_b, Bicycle Delay [s]	25.88	25.88	10.53	10.53
l_b,int, Bicycle LOS Score for Intersection	1.604	2.362	3.365	3.101
Bicycle LOS	A	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Opening Year (2023) With Project With Amphitheater Event

Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\AM OY.vistro

Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

Report File: G:\...\AM OYP Amphitheater.pdf

10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	SB Thru	1.399	97.9	F
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	NB Right	2.353	433.3	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.016	24.0	C
4	Project Dwy (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.003	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	3.820	1,686.5	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	1.209	1,132.5	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.674	19.6	B
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.338	25.3	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.507	16.4	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.634	21.9	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.334	34.5	D
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.607	16.7	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	EB Right	0.509	15.9	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	EB Left	2.359	493.2	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	8.5	A
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.007	30.0	D
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.000	30.6	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	97.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.399

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	11	11	99	38	0	0	120	21	23	41	32
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	156	110	151	306	31	23	217	56	160	97	54
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	47	33	45	92	9	7	65	17	48	29	16
Total Analysis Volume [veh/h]	14	187	132	181	366	37	28	260	67	191	116	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	403	440	584	411	449	420
Degree of Utilization, x	0.50	0.30	1.40	0.70	0.15	0.89

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.70	1.25	28.50	5.25	0.52	9.22
95th-Percentile Queue Length [ft]	67.40	31.21	712.38	131.27	13.03	230.42
Approach Delay [s/veh]	17.89		217.42	26.32		49.99
Approach LOS	C		F	D		E
Intersection Delay [s/veh]	97.85					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	433.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.353

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	16	814	40	41	0	0	100	17	314	32	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	225	943	59	484	18	4	184	71	688	110	29
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	63	263	16	135	5	1	51	20	192	31	8
Total Analysis Volume [veh/h]	25	251	1051	66	540	20	4	205	79	767	123	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	410	1051	606	444	378	408	890	444
Degree of Utilization, x	0.67	2.35	1.49	0.05	0.55	0.19	2.28	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.81	80.44	31.95	0.14	3.21	0.71	67.33	0.23
95th-Percentile Queue Length [ft]	120.21	2011.08	798.85	3.53	80.37	17.71	1683.15	5.80
Approach Delay [s/veh]	507.41		247.60		20.68		581.55	
Approach LOS	F		F		C		F	
Intersection Delay [s/veh]	433.28							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	24.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	870	10	17	295	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1252	10	17	1254	0	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	329	3	4	330	0	1
Total Analysis Volume [veh/h]	1318	11	18	1320	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.01	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	12.18	0.00	0.00	24.02
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.00	0.00	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.69	0.00	0.00	1.19
d_A, Approach Delay [s/veh]	0.00		0.16		24.02	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	27	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	27	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	0	0
Total Analysis Volume [veh/h]	3	0	0	28	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.27	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.64	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.83					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,686.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.820

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	877	168	16	279	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1259	168	16	1238	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	331	44	4	326	18	1
Total Analysis Volume [veh/h]	1325	177	17	1303	72	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.01	3.82	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	13.39	0.00	1686.50	1516.83
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.11	9.80	9.80
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.78	2.78	245.04	245.04
d_A, Approach Delay [s/veh]	0.00		0.17		1679.72	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	43.56					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,132.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.209

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1088	0	0	347	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1458	18	4	1288	15	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	408	5	1	361	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	22	1633	20	4	1442	17	7	0	7	7	0	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

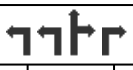
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.02	0.00	0.01	0.01	0.00	1.22	0.00	0.04	1.21	0.00	0.05
d_M, Delay for Movement [s/veh]	13.16	0.00	0.00	14.32	0.00	0.00	1127.55	872.25	521.67	1132.51	882.90	539.95
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.03	0.03	0.03	2.48	2.48	2.48	2.38	2.38	2.38
95th-Percentile Queue Length [ft/ln]	3.73	0.00	0.00	0.78	0.78	0.78	62.05	62.05	62.05	59.52	59.52	59.52
d_A, Approach Delay [s/veh]	0.17			0.04			824.61			859.02		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	7.29											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	18	272	6	3	828	16	16	2	64	254	51	94
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	625	0	0	347	0	0	0	0	0	0	463
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	919	6	3	1242	18	18	2	70	275	55	565
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	250	2	1	338	5	5	1	19	75	15	154
Total Analysis Volume [veh/h]	22	1000	7	3	1351	20	20	2	76	299	60	615
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	20	0	12	21	0	11	11	0	21	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	29	29	0	27	27	2	10	10	8	16	16
g / C, Green / Cycle	0.04	0.46	0.46	0.01	0.43	0.43	0.03	0.16	0.16	0.12	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.28	0.00	0.00	0.25	0.25	0.01	0.00	0.05	0.09	0.21	0.21
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1856	1781	1870	1589	3459	1633	1589
c, Capacity [veh/h]	67	1619	723	14	1511	788	62	306	260	434	414	403
d1, Uniform Delay [s]	30.13	13.29	9.60	31.71	14.25	14.25	30.26	22.52	23.62	26.91	22.57	22.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	1.78	0.02	7.94	1.74	3.31	2.90	0.01	0.62	1.96	3.94	4.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.62	0.01	0.22	0.60	0.60	0.32	0.01	0.29	0.69	0.81	0.84
d, Delay for Lane Group [s/veh]	32.91	15.07	9.62	39.65	15.99	17.57	33.17	22.53	24.24	28.88	26.51	27.38
Lane Group LOS	C	B	A	D	B	B	C	C	C	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.34	4.34	0.04	0.07	4.10	4.62	0.34	0.02	1.00	2.20	4.89	4.99
50th-Percentile Queue Length [ft/ln]	8.62	108.40	1.12	1.78	102.59	115.56	8.50	0.62	25.12	54.99	122.15	124.65
95th-Percentile Queue Length [veh/ln]	0.62	7.75	0.08	0.13	7.39	8.15	0.61	0.04	1.81	3.96	8.51	8.65
95th-Percentile Queue Length [ft/ln]	15.51	193.77	2.01	3.20	184.66	203.71	15.31	1.12	45.21	98.98	212.78	216.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.91	15.07	9.62	39.65	16.52	17.57	33.17	22.53	24.24	28.88	26.51	26.99
Movement LOS	C	B	A	D	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.41			16.58			26.03			27.54		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.57											
Intersection LOS	B											
Intersection V/C	0.674											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	21.95	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	3.330	2.161	0.000
Crosswalk LOS	F	C	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	531	219	531
d_b, Bicycle Delay [s]	18.00	17.26	25.38	17.26
I_b,int, Bicycle LOS Score for Intersection	2.409	2.315	1.721	3.167
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.338

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	366	9	3	1	3	6
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	463	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	859	9	3	1	3	6
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	241	3	1	0	1	2
Total Analysis Volume [veh/h]	965	10	3	1	3	7
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	74
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	36	0	11	0	13	24
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	74	74	74	74	74
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	38	0	42
g / C, Green / Cycle	0.32	0.32	0.51	0.01	0.57
(v / s)_i Volume / Saturation Flow Rate	0.28	0.01	0.00	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1791	1781	3560
c, Capacity [veh/h]	1123	516	907	13	2020
d1, Uniform Delay [s]	23.44	17.01	9.06	36.58	6.95
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.05	0.01	0.01	8.85	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.02	0.00	0.23	0.00
d, Delay for Lane Group [s/veh]	25.49	17.02	9.07	45.43	6.95
Lane Group LOS	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.69	0.11	0.03	0.08	0.02
50th-Percentile Queue Length [ft/ln]	192.33	2.83	0.78	2.11	0.55
95th-Percentile Queue Length [veh/ln]	12.24	0.20	0.06	0.15	0.04
95th-Percentile Queue Length [ft/ln]	306.05	5.09	1.41	3.80	0.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.49	17.02	9.07	9.07	45.43	6.95
Movement LOS	C	B	A	A	D	A
d_A, Approach Delay [s/veh]	25.41		9.07		18.49	
Approach LOS	C		A		B	
d_I, Intersection Delay [s/veh]	25.27					
Intersection LOS	C					
Intersection V/C	0.338					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.00	37.00	37.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.139	4.141
Bicycle LOS	D	D	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	304	17	7	29	57	126
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	490	0	0	0	0	138
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	819	19	7	31	61	274
Peak Hour Factor	0.8540	0.8540	0.8540	0.8540	0.8540	0.8540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	240	6	2	9	18	80
Total Analysis Volume [veh/h]	959	22	8	36	71	321
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	21	21	1	35	30	55
g / C, Green / Cycle	0.32	0.32	0.02	0.55	0.47	0.86
(v / s)_i Volume / Saturation Flow Rate	0.28	0.01	0.00	0.02	0.04	0.20
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	1118	514	29	1032	885	1365
d1, Uniform Delay [s]	20.32	14.89	31.17	6.56	9.25	0.80
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.03	0.03	4.91	0.06	0.18	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.04	0.27	0.03	0.08	0.24
d, Delay for Lane Group [s/veh]	22.36	14.93	36.08	6.63	9.43	0.89
Lane Group LOS	C	B	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.40	0.21	0.16	0.20	0.52	0.03
50th-Percentile Queue Length [ft/ln]	160.02	5.24	3.94	5.11	13.02	0.83
95th-Percentile Queue Length [veh/ln]	10.55	0.38	0.28	0.37	0.94	0.06
95th-Percentile Queue Length [ft/ln]	263.74	9.42	7.09	9.21	23.44	1.49

Movement, Approach, & Intersection Results

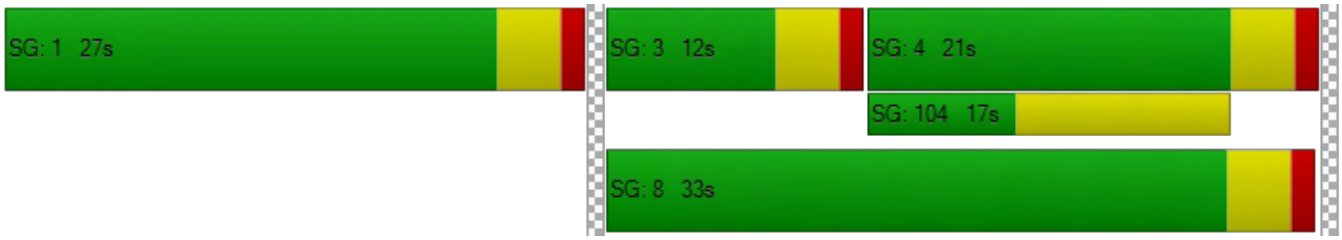
d_M, Delay for Movement [s/veh]	22.36	14.93	36.08	6.63	9.43	0.89
Movement LOS	C	B	D	A	A	A
d_A, Approach Delay [s/veh]	22.19		11.98		2.44	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.41					
Intersection LOS	B					
Intersection V/C	0.507					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.95	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.432	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	32.00	32.00	32.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.205	4.779
Bicycle LOS	D	D	E

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.634

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	19	441	10	153	774	141	120	12	204	22	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	135	0	0	44	138	490	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	612	10	165	881	291	620	12	220	24	5	9
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	171	3	46	247	81	174	3	62	7	1	3
Total Analysis Volume [veh/h]	24	685	11	185	987	326	694	13	246	27	6	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	76
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	13	21	0	13	21	0	21	31	31	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	76	76	76	76	76	76	76	76	76	76	76
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	5	32	32	9	36	36	17	16	25	3	2
g / C, Green / Cycle	0.06	0.42	0.42	0.12	0.48	0.48	0.22	0.21	0.32	0.04	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.13	0.10	0.28	0.21	0.20	0.01	0.15	0.02	0.01
s, saturation flow rate [veh/h]	1781	3560	1855	1781	3560	1589	3459	1870	1589	1781	1684
c, Capacity [veh/h]	111	1494	778	212	1697	757	772	392	515	75	48
d1, Uniform Delay [s]	33.99	14.74	14.74	33.00	14.45	13.14	28.77	23.98	20.60	35.53	36.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.97	0.53	1.02	10.55	1.46	1.78	4.11	0.03	0.69	2.93	4.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.31	0.31	0.87	0.58	0.43	0.90	0.03	0.48	0.36	0.34
d, Delay for Lane Group [s/veh]	34.96	15.27	15.76	43.55	15.91	14.92	32.88	24.02	21.29	38.45	40.44
Lane Group LOS	C	B	B	D	B	B	C	C	C	D	D
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	0.42	2.27	2.47	3.64	5.13	3.25	6.32	0.18	3.43	0.54	0.34
50th-Percentile Queue Length [ft/ln]	10.38	56.69	61.85	90.96	128.18	81.19	158.05	4.62	85.66	13.44	8.49
95th-Percentile Queue Length [veh/ln]	0.75	4.08	4.45	6.55	8.84	5.85	10.45	0.33	6.17	0.97	0.61
95th-Percentile Queue Length [ft/ln]	18.68	102.05	111.33	163.72	221.02	146.15	261.13	8.32	154.19	24.19	15.29

Movement, Approach, & Intersection Results

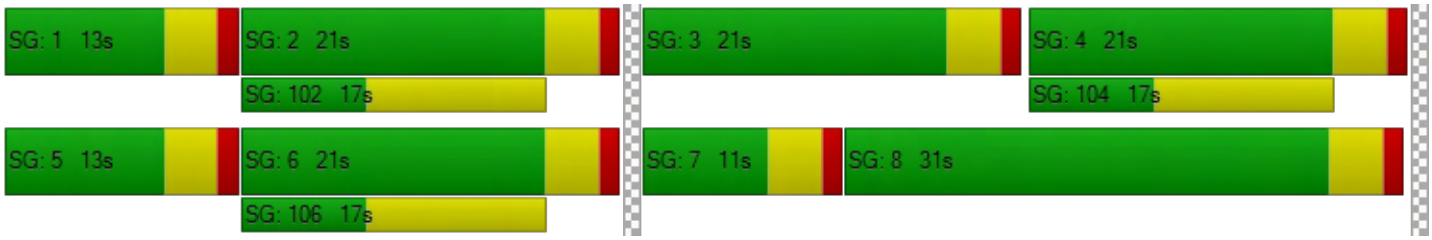
d_M, Delay for Movement [s/veh]	34.96	15.43	15.76	43.55	15.91	14.92	32.88	24.02	21.29	38.45	40.44	40.44
Movement LOS	C	B	B	D	B	B	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	16.09			19.11			29.77			39.19		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	21.86											
Intersection LOS	C											
Intersection V/C	0.634											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	27.80	27.80	27.80
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.322	2.656	2.013
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	447	447	711	447
d_b, Bicycle Delay [s]	22.90	22.90	15.80	22.90
l_b,int, Bicycle LOS Score for Intersection	1.956	2.795	3.132	1.631
Bicycle LOS	A	C	C	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.334

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	23	435	982	24	57	62
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	133	44	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	603	1106	26	63	67
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	171	313	7	18	19
Total Analysis Volume [veh/h]	28	684	1254	29	71	76
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.33	0.18
d_M, Delay for Movement [s/veh]	12.08	0.00	0.00	0.00	34.46	25.94
Movement LOS	B	A	A	A	D	D
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	2.73	2.73
95th-Percentile Queue Length [ft/ln]	4.12	0.00	0.00	0.00	68.25	68.25
d_A, Approach Delay [s/veh]	0.47		0.00		30.06	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.22					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	28	348	10	198	873	35	48	60	38	26	66	146
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	130	0	1	43	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	506	10	215	987	37	52	64	42	28	72	161
Peak Hour Factor	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730	0.8730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	145	3	62	283	11	15	18	12	8	21	46
Total Analysis Volume [veh/h]	34	580	11	246	1131	42	60	73	48	32	82	184
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	12	24	0	14	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	43	32	32	43	35	35	19	12	12	19	10	10
g / C, Green / Cycle	0.61	0.45	0.45	0.61	0.50	0.50	0.28	0.17	0.17	0.28	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.24	0.32	0.32	0.04	0.04	0.03	0.02	0.04	0.12
s, saturation flow rate [veh/h]	647	1870	1858	1027	1870	1847	1482	1870	1589	1453	1870	1589
c, Capacity [veh/h]	429	844	838	687	937	925	518	322	274	516	280	238
d1, Uniform Delay [s]	7.81	12.57	12.57	6.86	12.77	12.79	19.01	25.05	24.82	18.70	26.55	28.71
k, delay calibration	0.50	0.50	0.50	0.13	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	1.15	1.16	0.37	3.20	3.26	0.10	0.35	0.30	0.05	0.57	5.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.35	0.35	0.36	0.63	0.63	0.12	0.23	0.18	0.06	0.29	0.77
d, Delay for Lane Group [s/veh]	8.17	13.72	13.73	7.24	15.97	16.05	19.11	25.40	25.12	18.75	27.13	33.98
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.18	2.77	2.75	1.22	6.09	6.05	0.72	1.06	0.69	0.34	1.14	3.01
50th-Percentile Queue Length [ft/ln]	4.57	69.13	68.79	30.57	152.28	151.27	18.12	26.39	17.25	8.58	28.52	75.22
95th-Percentile Queue Length [veh/ln]	0.33	4.98	4.95	2.20	10.14	10.08	1.30	1.90	1.24	0.62	2.05	5.42
95th-Percentile Queue Length [ft/ln]	8.23	124.44	123.83	55.03	253.47	252.12	32.62	47.51	31.06	15.44	51.34	135.40

Movement, Approach, & Intersection Results

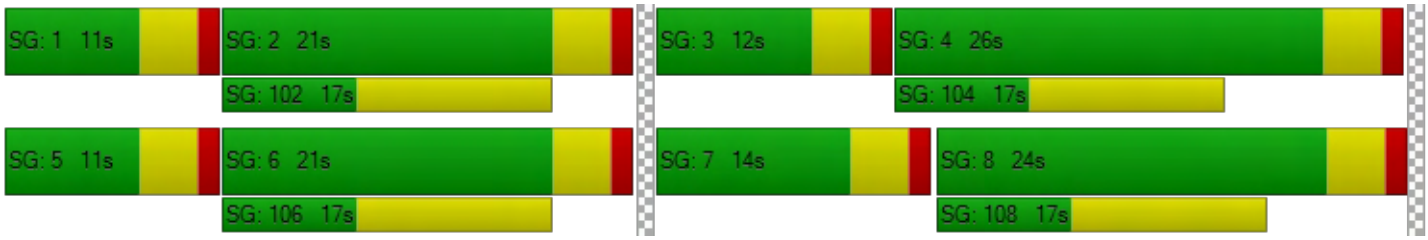
d_M, Delay for Movement [s/veh]	8.17	13.72	13.73	7.24	16.01	16.05	19.11	25.40	25.12	18.75	27.13	33.98
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	13.42			14.49			23.24			30.46		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.74											
Intersection LOS	B											
Intersection V/C	0.607											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.86	24.86	24.86	24.86
l_p,int, Pedestrian LOS Score for Intersection	2.832	2.957	2.212	2.541
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	571	629
d_b, Bicycle Delay [s]	20.06	20.06	17.86	16.46
l_b,int, Bicycle LOS Score for Intersection	2.075	2.730	1.858	2.051
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	42	275	18	129	764	44	21	221	27	34	139	70
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	127	0	1	42	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	424	20	140	869	48	23	239	29	36	151	79
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	116	5	38	237	13	6	65	8	10	41	22
Total Analysis Volume [veh/h]	50	463	22	153	949	52	25	261	32	39	165	86
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	41	30	30	41	33	33	15	8	8	15	9	9
g / C, Green / Cycle	0.64	0.47	0.47	0.64	0.51	0.51	0.24	0.12	0.12	0.24	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.07	0.13	0.13	0.14	0.27	0.27	0.02	0.08	0.08	0.03	0.07	0.07
s, saturation flow rate [veh/h]	750	1870	1840	1094	1870	1836	1328	1870	1800	1344	1870	1663
c, Capacity [veh/h]	534	882	868	787	951	934	410	222	213	406	251	223
d1, Uniform Delay [s]	5.72	10.32	10.32	4.91	10.64	10.64	19.07	27.12	27.16	19.27	25.89	26.00
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.78	0.79	0.12	2.12	2.16	0.06	3.44	3.76	0.10	1.64	2.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.28	0.28	0.19	0.53	0.53	0.06	0.67	0.68	0.10	0.52	0.55
d, Delay for Lane Group [s/veh]	6.07	11.10	11.12	5.03	12.76	12.80	19.13	30.56	30.92	19.37	27.53	28.08
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.20	1.82	1.80	0.51	4.12	4.06	0.26	2.17	2.14	0.41	1.76	1.69
50th-Percentile Queue Length [ft/ln]	4.97	45.55	45.07	12.64	103.03	101.50	6.54	54.15	53.47	10.30	44.12	42.18
95th-Percentile Queue Length [veh/ln]	0.36	3.28	3.24	0.91	7.42	7.31	0.47	3.90	3.85	0.74	3.18	3.04
95th-Percentile Queue Length [ft/ln]	8.95	81.98	81.12	22.76	185.45	182.70	11.78	97.47	96.25	18.54	79.41	75.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.07	11.11	11.12	5.03	12.78	12.80	19.13	30.71	30.92	19.37	27.65	28.08
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.64			11.75			29.82			26.66		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.88											
Intersection LOS	B											
Intersection V/C	0.509											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.792	0.000	2.603
Crosswalk LOS	F	C	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	531	531	531
d_b, Bicycle Delay [s]	17.26	17.26	17.26	17.26
l_b,int, Bicycle LOS Score for Intersection	2.001	2.512	1.822	1.799
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	493.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.359

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	31	30	76	99	180	693	137	125	97	141	329
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	32	30	324	100	498	828	248	125	97	370	469
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	9	9	95	29	146	243	73	37	28	108	137
Total Analysis Volume [veh/h]	40	38	35	380	117	584	971	291	147	114	434	550
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	384	1081	971	450	407	984
Degree of Utilization, x	0.29	2.24	2.36	0.98	0.28	2.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.21	79.92	74.79	12.13	1.13	71.59
95th-Percentile Queue Length [ft]	30.21	1997.91	1869.68	303.36	28.30	1789.86
Approach Delay [s/veh]	16.24	582.34	459.58		497.69	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	493.20					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1044	44	0	347	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1426	44	0	1306	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	375	12	0	344	0	0
Total Analysis Volume [veh/h]	1501	46	0	1375	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	29.98
Movement LOS	A	A		A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.52
d_A, Approach Delay [s/veh]	0.00		0.00		29.98	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1088	0	0	347	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1470	0	0	1306	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	387	0	0	344	0	0
Total Analysis Volume [veh/h]	1547	0	0	1375	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	13.40	0.00	0.00	30.60
Movement LOS	A	A	B	A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		30.60	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	D					

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Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

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10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.068	53.1	F
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.626	379.5	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.095	23.8	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.020	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	9.515	4,148.7	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	33.785	10,000.0	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	SB Left	0.885	37.5	D
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.472	24.6	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.702	14.7	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.820	25.6	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.078	16.1	C
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.571	18.6	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.480	16.5	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	SB Right	2.502	408.8	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	81.1	F
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.022	25.3	D
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.045	26.4	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	53.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.068

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	26	24	50	10	0	0	55	4	31	98	88
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	342	140	85	168	17	23	162	20	118	180	152
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	89	36	22	44	4	6	42	5	31	47	40
Total Analysis Volume [veh/h]	59	357	146	89	175	18	24	169	21	123	188	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	440	486	412	400	437	469
Degree of Utilization, x	0.94	0.30	0.68	0.48	0.05	1.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.06	1.25	4.97	2.55	0.15	15.25
95th-Percentile Queue Length [ft]	276.55	31.30	124.22	63.72	3.78	381.15
Approach Delay [s/veh]	46.90		28.59	19.00		90.95
Approach LOS	E		D	C		F
Intersection Delay [s/veh]	53.14					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	379.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.626

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	37	405	8	37	0	0	40	8	692	80	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	470	735	37	266	0	5	128	24	884	177	65
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	121	189	10	68	0	1	33	6	227	46	17
Total Analysis Volume [veh/h]	28	484	756	38	274	0	5	132	25	909	182	67
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	512	756	416	419	388	420	1091	477
Degree of Utilization, x	1.14	1.53	0.75	0.00	0.35	0.06	2.63	0.14

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	18.32	39.91	6.12	0.00	1.56	0.19	89.03	0.49
95th-Percentile Queue Length [ft]	457.98	997.82	153.11	0.00	39.06	4.73	2225.74	12.15
Approach Delay [s/veh]	206.07		33.14		16.19		713.50	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	379.48							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	23.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.095

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	403	5	10	743	0	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1186	5	10	1201	0	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	312	1	3	316	0	5
Total Analysis Volume [veh/h]	1248	5	11	1264	0	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.01	0.00	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	11.61	0.00	0.00	23.80
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.00	0.00	0.31
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.51	0.00	0.00	7.74
d_A, Approach Delay [s/veh]	0.00		0.10		23.80	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.24					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	15	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	15	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	4	0	0
Total Analysis Volume [veh/h]	20	0	0	16	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.63	8.42	0.00	0.00	7.25	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.51	1.51	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.63		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.79					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	4,148.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	9.515

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	393	95	12	731	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1176	95	12	1189	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	309	25	3	313	63	4
Total Analysis Volume [veh/h]	1238	100	13	1252	251	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.01	9.52	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	12.17	0.00	4148.71	4030.21
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.07	32.94	32.94
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.79	1.79	823.42	823.42
d_A, Approach Delay [s/veh]	0.00		0.13		4141.61	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	385.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	33.785

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	529	810	0	926	0	0	0	0	142	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1302	814	0	1380	3	9	0	15	145	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	344	215	0	365	1	2	0	4	38	0	0
Total Analysis Volume [veh/h]	11	1376	860	0	1459	3	10	0	16	153	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

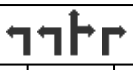
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.00	0.01	0.00	2.01	0.00	0.10	33.78	0.00	0.01
d_M, Delay for Movement [s/veh]	12.98	0.00	0.00	20.56	0.00	0.00	1559.21	1657.58	859.39	10000.0	10000.0	10000.0
Movement LOS	B	A	A	C	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.00	0.00	0.00	4.09	4.09	4.09	21.38	21.38	21.38
95th-Percentile Queue Length [ft/ln]	1.83	0.00	0.00	0.00	0.00	0.00	102.29	102.29	102.29	534.53	534.53	534.53
d_A, Approach Delay [s/veh]	0.06			0.00			1128.55			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	403.57											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	37.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.885

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	43	597	3	0	426	19	22	1	81	212	37	211
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	738	0	65	1003	0	0	0	0	0	0	601
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	1384	3	65	1464	21	24	1	87	229	40	829
Peak Hour Factor	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	369	1	17	391	6	6	0	23	61	11	221
Total Analysis Volume [veh/h]	50	1477	3	69	1562	22	26	1	93	244	43	885
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	113
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	25	0	12	26	0	15	37	0	39	61	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	113	113	113	113	113	113	113	113	113	113	113	113
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	50	50	6	51	51	4	30	30	10	37	37
g / C, Green / Cycle	0.05	0.45	0.45	0.06	0.45	0.45	0.04	0.27	0.27	0.09	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.03	0.41	0.00	0.04	0.29	0.29	0.01	0.00	0.06	0.07	0.29	0.29
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1857	1781	1870	1589	3459	1612	1589
c, Capacity [veh/h]	89	1581	706	99	1602	835	63	497	422	322	521	514
d1, Uniform Delay [s]	52.51	29.85	17.50	52.45	24.18	24.18	53.37	30.51	32.39	50.04	36.38	36.59
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.45	11.58	0.01	8.43	2.06	3.90	4.21	0.00	0.26	3.67	5.49	6.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.93	0.00	0.70	0.65	0.65	0.41	0.00	0.22	0.76	0.89	0.90
d, Delay for Lane Group [s/veh]	57.96	41.43	17.51	60.89	26.24	28.08	57.59	30.52	32.65	53.71	41.87	42.85
Lane Group LOS	E	D	B	E	C	C	E	C	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.46	19.45	0.04	2.07	10.18	11.05	0.80	0.02	2.02	3.52	12.77	12.94
50th-Percentile Queue Length [ft/ln]	36.58	486.37	1.06	51.83	254.56	276.24	19.94	0.51	50.62	88.12	319.21	323.38
95th-Percentile Queue Length [veh/ln]	2.63	26.69	0.08	3.73	15.42	16.50	1.44	0.04	3.64	6.34	18.63	18.83
95th-Percentile Queue Length [ft/ln]	65.85	667.21	1.91	93.30	385.38	412.53	35.89	0.92	91.11	158.62	465.71	470.84

Movement, Approach, & Intersection Results

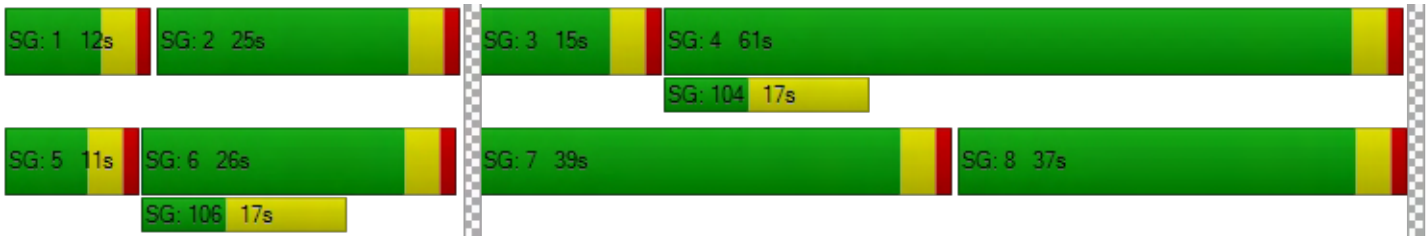
d_M, Delay for Movement [s/veh]	57.96	41.43	17.51	60.89	26.85	28.08	57.59	30.52	32.65	53.71	41.87	42.38
Movement LOS	E	D	B	E	C	C	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	41.92			28.29			38.04			44.72		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	37.52											
Intersection LOS	D											
Intersection V/C	0.885											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	46.04	46.04	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.668	2.199	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	372	389	584	1009
d_b, Bicycle Delay [s]	37.45	36.64	28.32	13.88
l_b,int, Bicycle LOS Score for Intersection	2.822	2.469	1.758	3.493
Bicycle LOS	C	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.472

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	482	4	2	1	5	9
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	601	0	0	65	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1122	4	2	66	5	9
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	303	1	1	18	1	2
Total Analysis Volume [veh/h]	1213	4	2	71	5	10
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	78
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	37	0	11	0	12	23
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	78	78	78	78	78
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	35	1	40
g / C, Green / Cycle	0.39	0.39	0.45	0.01	0.51
(v / s)_i Volume / Saturation Flow Rate	0.35	0.00	0.05	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1596	1781	3560
c, Capacity [veh/h]	1335	614	718	19	1821
d1, Uniform Delay [s]	22.67	14.76	12.40	38.32	9.34
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.71	0.00	0.28	7.05	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.01	0.10	0.26	0.01
d, Delay for Lane Group [s/veh]	25.38	14.76	12.68	45.37	9.35
Lane Group LOS	C	B	B	D	A
Critical Lane Group	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	10.25	0.04	0.75	0.13	0.04
50th-Percentile Queue Length [ft/ln]	256.23	1.06	18.68	3.26	1.00
95th-Percentile Queue Length [veh/ln]	15.50	0.08	1.34	0.24	0.07
95th-Percentile Queue Length [ft/ln]	387.49	1.91	33.62	5.88	1.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.38	14.76	12.68	12.68	45.37	9.35
Movement LOS	C	B	B	B	D	A
d_A, Approach Delay [s/veh]	25.35		12.68		21.35	
Approach LOS	C		B		C	
d_I, Intersection Delay [s/veh]	24.59					
Intersection LOS	C					
Intersection V/C	0.472					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	39.00	39.00	39.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.253	4.145
Bicycle LOS	D	E	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	200	11	10	65	54	93
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	639	0	0	0	0	474
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	855	11	10	71	58	575
Peak Hour Factor	0.8390	0.8390	0.8390	0.8390	0.8390	0.8390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	255	3	3	21	17	171
Total Analysis Volume [veh/h]	1019	13	12	85	69	685
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	67
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	27	0	12	33	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	67	67	67	67	67	67
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	22	22	1	37	31	58
g / C, Green / Cycle	0.33	0.33	0.02	0.55	0.47	0.86
(v / s)_i Volume / Saturation Flow Rate	0.29	0.01	0.01	0.05	0.04	0.43
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	1148	528	41	1026	872	1364
d1, Uniform Delay [s]	21.24	15.10	32.27	7.16	9.92	1.19
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.42
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.54	0.02	3.98	0.16	0.18	1.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.02	0.30	0.08	0.08	0.50
d, Delay for Lane Group [s/veh]	23.78	15.12	36.25	7.32	10.10	2.31
Lane Group LOS	C	B	D	A	B	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.32	0.13	0.23	0.54	0.55	0.43
50th-Percentile Queue Length [ft/ln]	182.91	3.20	5.75	13.41	13.67	10.66
95th-Percentile Queue Length [veh/ln]	11.75	0.23	0.41	0.97	0.98	0.77
95th-Percentile Queue Length [ft/ln]	293.81	5.77	10.36	24.13	24.61	19.19

Movement, Approach, & Intersection Results

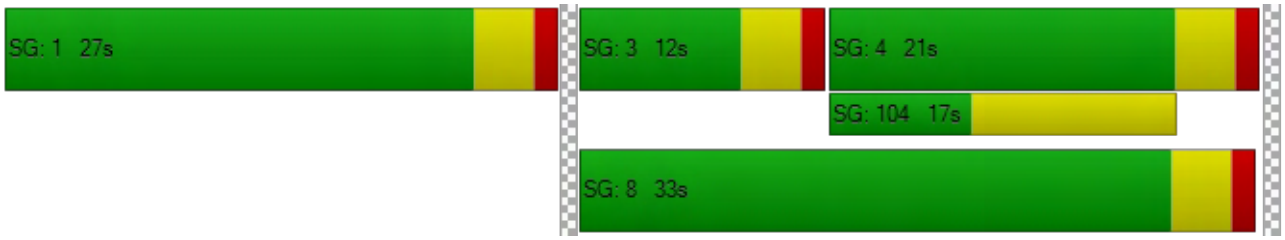
d_M, Delay for Movement [s/veh]	23.78	15.12	36.25	7.32	10.10	2.31
Movement LOS	C	B	D	A	B	A
d_A, Approach Delay [s/veh]	23.67		10.90		3.03	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	14.75					
Intersection LOS	B					
Intersection V/C	0.702					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	23.40	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.536	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	33.50	33.50	33.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.292	5.377
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	45	829	15	142	368	108	154	16	94	9	6	11
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	99	0	0	118	474	639	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	995	17	154	516	590	805	18	102	9	6	11
Peak Hour Factor	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770	0.9770
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	255	4	39	132	151	206	5	26	2	2	3
Total Analysis Volume [veh/h]	50	1018	17	158	528	604	824	18	104	9	6	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	21	0	13	23	0	25	35	35	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	5	32	32	9	36	36	21	22	31	1	2
g / C, Green / Cycle	0.06	0.40	0.40	0.11	0.45	0.45	0.26	0.27	0.38	0.02	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.19	0.09	0.15	0.38	0.24	0.01	0.07	0.01	0.01
s, saturation flow rate [veh/h]	1781	3560	1854	1781	3560	1589	3459	1870	1589	1781	1678
c, Capacity [veh/h]	107	1429	744	196	1606	717	899	508	607	31	49
d1, Uniform Delay [s]	36.44	17.77	17.78	34.86	14.20	19.50	28.83	21.48	16.39	38.92	38.19
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.11	1.14	2.18	7.60	0.55	11.56	4.26	0.03	0.13	5.00	4.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.48	0.48	0.81	0.33	0.84	0.92	0.04	0.17	0.29	0.35
d, Delay for Lane Group [s/veh]	39.55	18.91	19.96	42.47	14.74	31.06	33.09	21.51	16.53	43.91	42.33
Lane Group LOS	D	B	B	D	B	C	C	C	B	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.96	4.12	4.51	3.15	2.65	10.25	7.88	0.25	1.23	0.22	0.38
50th-Percentile Queue Length [ft/ln]	24.06	103.07	112.81	78.83	66.27	256.20	197.09	6.16	30.87	5.38	9.46
95th-Percentile Queue Length [veh/ln]	1.73	7.42	8.00	5.68	4.77	15.50	12.49	0.44	2.22	0.39	0.68
95th-Percentile Queue Length [ft/ln]	43.31	185.52	199.90	141.89	119.28	387.45	312.20	11.08	55.56	9.68	17.02

Movement, Approach, & Intersection Results

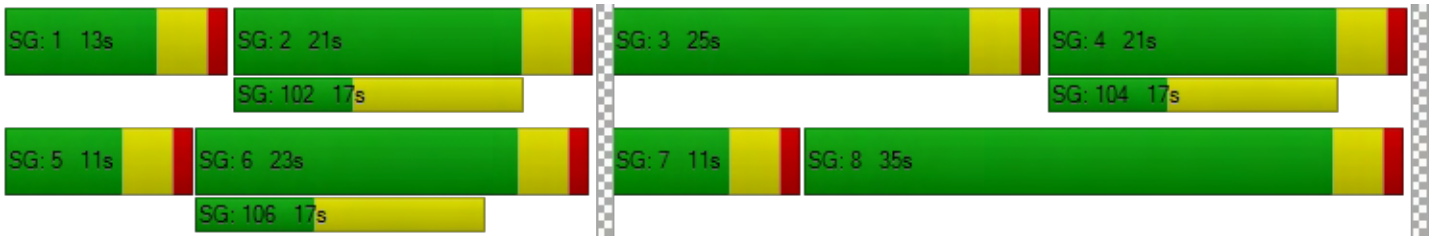
d_M, Delay for Movement [s/veh]	39.55	19.26	19.96	42.47	14.74	31.06	33.09	21.51	16.53	43.91	42.33	42.33
Movement LOS	D	B	B	D	B	C	C	C	B	D	D	D
d_A, Approach Delay [s/veh]	20.20			25.78			31.05			42.88		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	25.59											
Intersection LOS	C											
Intersection V/C	0.820											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.390	2.707	2.005
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	425	475	775	425
d_b, Bicycle Delay [s]	24.81	23.26	15.01	24.81
l_b,int, Bicycle LOS Score for Intersection	2.156	2.624	3.121	1.603
Bicycle LOS	B	B	C	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.078

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	42	768	472	24	14	26
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	88	113	5	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	919	624	31	27	28
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	241	164	8	7	7
Total Analysis Volume [veh/h]	48	963	654	32	28	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.08	0.04
d_M, Delay for Movement [s/veh]	9.21	0.00	0.00	0.00	16.07	11.44
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.17	0.00	0.00	0.00	0.41	0.41
95th-Percentile Queue Length [ft/ln]	4.20	0.00	0.00	0.00	10.27	10.27
d_A, Approach Delay [s/veh]	0.44		0.00		13.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.70					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	43	618	25	102	404	49	66	56	23	22	76	200
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	76	0	6	107	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	745	27	116	544	53	72	60	25	24	82	228
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	201	7	31	147	14	19	16	7	6	22	62
Total Analysis Volume [veh/h]	51	805	29	125	588	57	78	65	27	26	89	246
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	76
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	29	0	15	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	76	76	76	76	76	76	76	76	76	76	76	76
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	44	34	34	44	36	36	24	17	17	24	14	14
g / C, Green / Cycle	0.58	0.44	0.44	0.58	0.47	0.47	0.31	0.22	0.22	0.31	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.22	0.14	0.18	0.18	0.05	0.03	0.02	0.02	0.05	0.15
s, saturation flow rate [veh/h]	936	1870	1847	876	1870	1813	1460	1870	1589	1430	1870	1589
c, Capacity [veh/h]	591	826	816	539	872	845	551	415	353	557	349	297
d1, Uniform Delay [s]	7.48	15.30	15.30	8.54	13.15	13.15	18.76	23.86	23.43	18.17	26.42	29.78
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.29	2.23	2.26	0.22	1.24	1.28	0.12	0.17	0.09	0.03	0.38	5.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.51	0.51	0.23	0.38	0.38	0.14	0.16	0.08	0.05	0.25	0.83
d, Delay for Lane Group [s/veh]	7.77	17.53	17.56	8.76	14.39	14.43	18.88	24.03	23.52	18.21	26.80	35.65
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.32	4.95	4.90	0.74	3.35	3.26	0.98	0.95	0.39	0.29	1.29	4.38
50th-Percentile Queue Length [ft/ln]	8.12	123.82	122.48	18.58	83.77	81.56	24.59	23.71	9.69	7.19	32.22	109.60
95th-Percentile Queue Length [veh/ln]	0.58	8.60	8.53	1.34	6.03	5.87	1.77	1.71	0.70	0.52	2.32	7.82
95th-Percentile Queue Length [ft/ln]	14.61	215.06	213.23	33.45	150.78	146.81	44.26	42.67	17.44	12.95	58.00	195.44

Movement, Approach, & Intersection Results

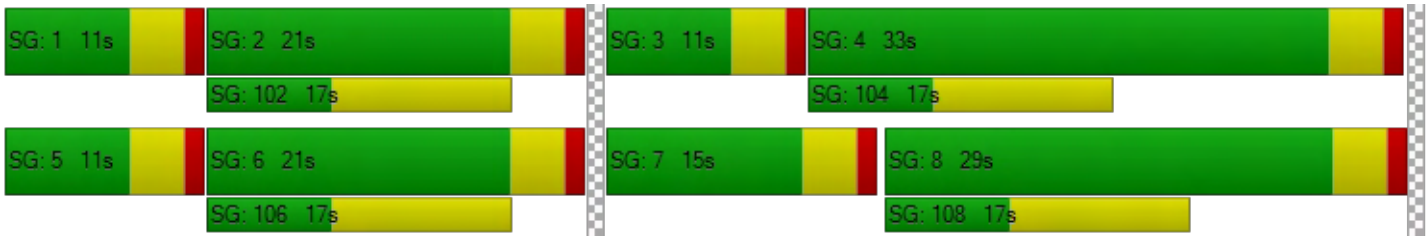
d_M, Delay for Movement [s/veh]	7.77	17.54	17.56	8.76	14.41	14.43	18.88	24.03	23.52	18.21	26.80	35.65
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	D
d_A, Approach Delay [s/veh]	16.98			13.49			21.58			32.22		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.63											
Intersection LOS	B											
Intersection V/C	0.571											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	27.80	27.80	27.80	27.80
l_p,int, Pedestrian LOS Score for Intersection	2.746	2.870	2.232	2.441
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	447	447	658	763
d_b, Bicycle Delay [s]	22.90	22.90	17.11	14.53
l_b,int, Bicycle LOS Score for Intersection	2.290	2.195	1.840	2.155
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	53	584	17	86	353	19	38	131	19	14	222	98
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	64	0	6	101	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	695	19	99	483	21	42	141	21	16	240	118
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	182	5	26	127	6	11	37	6	4	63	31
Total Analysis Volume [veh/h]	60	729	20	104	506	22	44	148	22	17	252	124
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	64
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	13	21	0	11	19	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64	64	64
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	39	29	29	39	30	30	17	11	11	17	9	9
g / C, Green / Cycle	0.61	0.45	0.45	0.61	0.47	0.47	0.27	0.18	0.18	0.27	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.20	0.11	0.14	0.14	0.03	0.05	0.05	0.01	0.10	0.11
s, saturation flow rate [veh/h]	1033	1870	1852	934	1870	1843	1271	1870	1788	1344	1870	1668
c, Capacity [veh/h]	707	836	829	626	874	861	410	334	320	486	277	247
d1, Uniform Delay [s]	5.54	12.29	12.29	6.19	10.63	10.63	17.82	22.71	22.74	17.25	26.05	26.18
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	1.75	1.76	0.12	0.90	0.91	0.11	0.40	0.43	0.03	3.28	4.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.45	0.45	0.17	0.30	0.30	0.11	0.26	0.26	0.03	0.71	0.73
d, Delay for Lane Group [s/veh]	5.78	14.04	14.06	6.31	11.53	11.55	17.94	23.11	23.18	17.28	29.34	30.37
Lane Group LOS	A	B	B	A	B	B	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.26	3.35	3.32	0.40	2.04	2.02	0.44	1.03	1.02	0.17	2.78	2.65
50th-Percentile Queue Length [ft/ln]	6.55	83.65	82.99	10.12	51.00	50.44	10.97	25.82	25.45	4.15	69.62	66.19
95th-Percentile Queue Length [veh/ln]	0.47	6.02	5.98	0.73	3.67	3.63	0.79	1.86	1.83	0.30	5.01	4.77
95th-Percentile Queue Length [ft/ln]	11.79	150.58	149.39	18.22	91.80	90.80	19.74	46.48	45.81	7.47	125.32	119.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.78	14.05	14.06	6.31	11.54	11.55	17.94	23.14	23.18	17.28	29.57	30.37
Movement LOS	A	B	B	A	B	B	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	13.43			10.68			22.07			29.29		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.53											
Intersection LOS	B											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.95	0.00	21.95
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.739	0.000	2.547
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	531	469	500	531
d_b, Bicycle Delay [s]	17.26	18.76	18.00	17.26
l_b,int, Bicycle LOS Score for Intersection	2.227	2.081	1.736	1.884
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	408.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.502

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	72	62	59	236	22	461	148	277	28	22	269	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	63	62	369	23	612	388	528	28	23	469	224
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	17	17	101	6	168	107	145	8	6	129	62
Total Analysis Volume [veh/h]	79	69	68	405	25	673	426	580	31	25	515	246
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	381	1103	426	611	384	761
Degree of Utilization, x	0.57	2.50	1.10	1.48	0.07	1.83

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.37	87.49	15.22	32.05	0.21	48.98
95th-Percentile Queue Length [ft]	84.36	2187.37	380.60	801.24	5.20	1224.56
Approach Delay [s/veh]	24.11	700.37	192.38		390.83	
Approach LOS	C	F	F		F	
Intersection Delay [s/veh]	408.79					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	81.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	142	810	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	142	810	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	37	213	0	0	0
Total Analysis Volume [veh/h]	0	149	853	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.14	0.53	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	81.13	8.85	9.65	0.00	0.00	0.00
Movement LOS	F	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.48	0.48	2.91	2.91	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.89	11.89	72.64	72.64	0.00	0.00
d_A, Approach Delay [s/veh]	8.85		9.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	9.53					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	484	53	0	969	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1267	53	0	1427	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	333	14	0	376	0	1
Total Analysis Volume [veh/h]	1334	56	0	1502	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.02	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	25.33
Movement LOS	A	A		A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.69
d_A, Approach Delay [s/veh]	0.00		0.00		25.33	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.03					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	26.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.045

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	529	0	43	926	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1312	0	43	1384	0	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	345	0	11	364	0	2
Total Analysis Volume [veh/h]	1381	0	45	1457	0	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.09	0.01	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	12.98	0.00	0.00	26.37
Movement LOS	A	A	B	A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.28	0.28	0.00	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.08	7.08	0.00	3.54
d_A, Approach Delay [s/veh]	0.00		0.39		26.37	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.27					
Intersection LOS	D					

Coachillin Industrial Park Parcels 30-31

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Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

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10/7/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	All-way stop	HCM 6th Edition	WB Thru	0.897	31.4	D
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Left	2.288	348.4	F
3	Indian Canyon Dr (NS) at 18th Ave (EW)	Two-way stop	HCM 6th Edition	WB Right	0.049	20.5	C
4	Project Dwy (NS) at18th Ave (EW)	Two-way stop	HCM 6th Edition	NB Left	0.012	8.6	A
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Two-way stop	HCM 6th Edition	WB Left	4.542	1,810.3	F
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	WB Left	50.277	10,000.0	F
7	Indian Canyon Dr (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.842	26.8	C
8	I-10 WB Ramps (NS) at 20th Ave (EW)	Signalized	HCM 6th Edition	NB Left	0.536	26.3	C
9	I-10 EB Ramps (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.762	16.9	B
10	Indian Canyon Dr (NS) at Garnet Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.901	33.4	C
11	Indian Canyon Dr (NS) at Tramview Rd (EW)	Two-way stop	HCM 6th Edition	EB Left	0.049	12.8	B
12	Indian Canyon Dr (NS) at San Rafael Dr (EW)	Signalized	HCM 6th Edition	WB Right	0.343	14.1	B
13	Indian Canyon Dr (NS) at Racquet Club Rd (EW)	Signalized	HCM 6th Edition	WB Right	0.313	16.3	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	All-way stop	HCM 6th Edition	WB Thru	1.960	295.9	F
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Left	0.000	25.0	C
16	Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.019	22.6	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Two-way stop	HCM 6th Edition	WB Right	0.221	26.7	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	31.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.897

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	32	93	8	0	0	95	5	14	81	83
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	171	81	120	163	27	12	178	30	71	189	119
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	48	23	33	45	8	3	50	8	20	53	33
Total Analysis Volume [veh/h]	26	191	90	134	182	30	13	199	33	79	211	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	434	479	447	431	474	471
Degree of Utilization, x	0.50	0.19	0.78	0.49	0.07	0.90

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.73	0.68	6.74	2.65	0.22	9.93
95th-Percentile Queue Length [ft]	68.23	17.11	168.50	66.14	5.59	248.14
Approach Delay [s/veh]	16.95		33.83	17.78		47.66
Approach LOS	C		D	C		E
Intersection Delay [s/veh]	31.36					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	348.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.288

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	37	646	9	18	0	0	64	7	588	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	256	821	31	243	3	4	124	29	789	142	27
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	68	217	8	64	1	1	33	8	209	38	7
Total Analysis Volume [veh/h]	17	271	868	33	257	3	4	131	31	834	150	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	459	868	428	469	402	436	984	496
Degree of Utilization, x	0.63	1.72	0.68	0.01	0.34	0.07	2.29	0.06

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.22	51.65	4.92	0.02	1.46	0.23	74.21	0.19
95th-Percentile Queue Length [ft]	105.47	1291.13	122.95	0.48	36.38	5.72	1855.14	4.65
Approach Delay [s/veh]	267.84		26.93		15.29		588.00	
Approach LOS	F		D		C		F	
Intersection Delay [s/veh]	348.44							
Intersection LOS	F							

Intersection Level Of Service Report
Intersection 3: Indian Canyon Dr (NS) at 18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		18th Ave	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	681	5	8	597	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1085	5	8	1045	0	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	286	1	2	275	0	3
Total Analysis Volume [veh/h]	1142	5	8	1100	0	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.01	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	10.99	0.00	0.00	20.52
Movement LOS	A	A	B	A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.00	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.00	0.00	0.00	3.86
d_A, Approach Delay [s/veh]	0.00		0.08		20.52	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.15					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Project Dwy (NS) at18th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Project Dwy		18th Ave		18th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		18th Ave		18th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	0	13	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	0	3	0	0
Total Analysis Volume [veh/h]	12	0	0	14	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.39	0.00	0.00	7.24	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.90	0.90	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.59		0.00		3.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.97					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	1,810.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	4.542

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	676	83	11	586	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1080	83	11	1034	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	284	22	3	272	46	3
Total Analysis Volume [veh/h]	1137	87	12	1088	185	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.02	0.01	4.54	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	11.46	0.00	1810.28	1737.44
Movement LOS	A	A	B	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.06	22.44	22.44
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.48	1.48	560.95	560.95
d_A, Approach Delay [s/veh]	0.00		0.12		1806.19	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	140.54					
Intersection LOS	F					

Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10,000.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	50.277

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	778	153	0	754	0	0	0	0	860	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	1151	172	1	1194	5	11	0	10	861	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	293	44	0	304	1	3	0	3	219	0	1
Total Analysis Volume [veh/h]	19	1173	175	1	1217	5	11	0	10	878	0	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.01	0.00	0.61	0.00	0.05	50.28	0.00	0.01
d_M, Delay for Movement [s/veh]	11.53	0.00	0.00	12.06	0.00	0.00	323.63	277.40	141.01	10000.0	10000.0	10000.0
Movement LOS	B	A	A	B	A	A	F	F	F	F	F	F
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.01	0.01	0.01	2.20	2.20	2.20	110.79	110.79	110.79
95th-Percentile Queue Length [ft/ln]	2.58	0.00	0.00	0.15	0.15	0.15	54.89	54.89	54.89	2769.78	2769.78	2769.78
d_A, Approach Delay [s/veh]	0.16			0.01			236.67			10000.00		
Approach LOS	A			A			F			F		
d_I, Intersection Delay [s/veh]	2522.26											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 7: Indian Canyon Dr (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	2	0	0
Pocket Length [ft]	157.00	100.00	100.00	82.00	100.00	100.00	75.00	100.00	100.00	190.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			20th Ave			20th Ave		
Base Volume Input [veh/h]	15	265	9	6	384	11	20	4	49	132	18	97
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	568	0	408	1206	0	0	0	0	0	0	363
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	855	9	414	1621	11	22	4	53	142	20	468
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	229	2	111	435	3	6	1	14	38	5	126
Total Analysis Volume [veh/h]	18	917	10	444	1739	12	24	4	57	152	21	502
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	42	42	0	11	15	0	17	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	26	26	24	47	47	3	13	13	7	16	16
g / C, Green / Cycle	0.03	0.31	0.31	0.28	0.55	0.55	0.04	0.15	0.15	0.08	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.01	0.26	0.01	0.25	0.32	0.32	0.01	0.00	0.04	0.04	0.16	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	3560	1863	1781	1870	1589	3459	1609	1589
c, Capacity [veh/h]	54	1093	488	493	1972	1032	66	275	234	280	307	304
d1, Uniform Delay [s]	40.48	27.56	20.59	29.66	12.52	12.53	40.03	31.04	32.13	37.63	33.32	33.33
k, delay calibration	0.11	0.50	0.50	0.13	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.63	7.77	0.08	7.46	1.27	2.41	3.30	0.02	0.53	1.63	6.76	6.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.84	0.02	0.90	0.58	0.58	0.36	0.01	0.24	0.54	0.85	0.86
d, Delay for Lane Group [s/veh]	44.11	35.33	20.67	37.13	13.79	14.94	43.32	31.06	32.66	39.26	40.07	40.22
Lane Group LOS	D	D	C	D	B	B	D	C	C	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.40	8.80	0.13	8.76	5.86	6.47	0.54	0.07	1.06	1.56	5.68	5.63
50th-Percentile Queue Length [ft/ln]	9.95	219.96	3.37	219.08	146.56	161.80	13.62	1.77	26.40	39.05	141.92	140.75
95th-Percentile Queue Length [veh/ln]	0.72	13.66	0.24	13.62	9.83	10.64	0.98	0.13	1.90	2.81	9.58	9.52
95th-Percentile Queue Length [ft/ln]	17.92	341.58	6.06	340.45	245.83	266.11	24.51	3.19	47.52	70.28	239.61	238.04

Movement, Approach, & Intersection Results

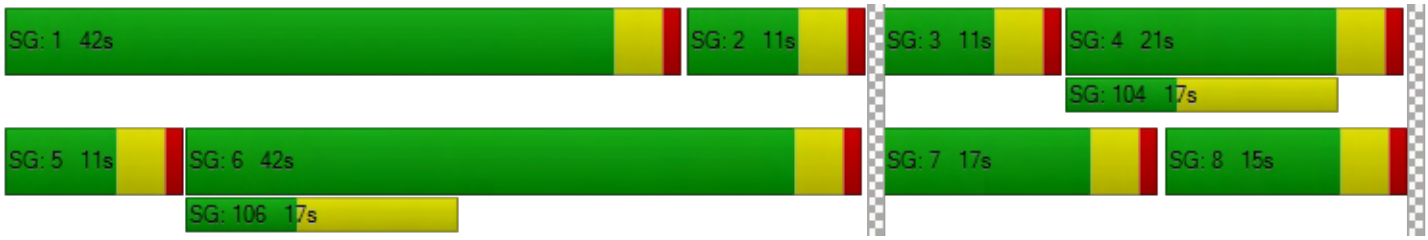
d_M, Delay for Movement [s/veh]	44.11	35.33	20.67	37.13	14.18	14.94	43.32	31.06	32.66	39.26	40.07	40.15
Movement LOS	D	D	C	D	B	B	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	35.34			18.83			35.60			39.94		
Approach LOS	D			B			D			D		
d_I, Intersection Delay [s/veh]	26.85											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	32.21	32.21	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.533	2.161	0.000
Crosswalk LOS	F	D	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	165	894	259	400
d_b, Bicycle Delay [s]	35.79	12.99	32.21	27.20
l_b,int, Bicycle LOS Score for Intersection	2.339	2.767	1.700	2.673
Bicycle LOS	B	C	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: I-10 WB Ramps (NS) at 20th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name	I-10 WB Ramps		20th Ave		20th Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	1	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	90.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	I-10 WB Ramps		20th Ave		20th Ave	
Base Volume Input [veh/h]	249	2	5	1	0	10
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	363	0	0	408	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	632	2	5	409	0	10
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	167	1	1	108	0	3
Total Analysis Volume [veh/h]	667	2	5	432	0	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	94
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	11	0	11	22
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	10	0	10	0	0	10
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	L	C
C, Cycle Length [s]	94	94	94	94	94
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	61	0	65
g / C, Green / Cycle	0.23	0.23	0.65	0.00	0.69
(v / s)_i Volume / Saturation Flow Rate	0.19	0.00	0.27	0.00	0.00
s, saturation flow rate [veh/h]	3459	1589	1592	1781	3560
c, Capacity [veh/h]	783	360	1027	2	2452
d1, Uniform Delay [s]	34.87	28.18	8.17	0.00	4.57
k, delay calibration	0.11	0.11	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.75	0.01	1.29	0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.01	0.43	0.00	0.00
d, Delay for Lane Group [s/veh]	37.62	28.19	9.47	0.00	4.58
Lane Group LOS	D	C	A	A	A
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.46	0.04	4.21	0.00	0.03
50th-Percentile Queue Length [ft/ln]	186.44	0.88	105.16	0.00	0.75
95th-Percentile Queue Length [veh/ln]	11.94	0.06	7.57	0.00	0.05
95th-Percentile Queue Length [ft/ln]	298.40	1.59	189.25	0.00	1.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.62	28.19	9.47	9.47	0.00	4.58
Movement LOS	D	C	A	A	A	A
d_A, Approach Delay [s/veh]	37.59		9.47		4.58	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	26.26					
Intersection LOS	C					
Intersection V/C	0.536					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	47.00	47.00	47.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.853	4.141
Bicycle LOS	D	E	D

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: I-10 EB Ramps (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		No	

Volumes

Name	I-10 EB Ramps		Garnet Ave		Garnet Ave	
Base Volume Input [veh/h]	192	8	12	30	32	84
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	491	0	0	0	0	700
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	699	8	12	32	34	790
Peak Hour Factor	0.8950	0.8950	0.8950	0.8950	0.8950	0.8950
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	195	2	3	9	9	221
Total Analysis Volume [veh/h]	781	9	13	36	38	883
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	74
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Overlap
Signal group	1	0	3	8	4	4
Auxiliary Signal Groups						1,4
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	22	0	17	38	21	21
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	7
Pedestrian Clearance [s]	10	0	0	10	10	10
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	74	74	74	74	74	74
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	18	18	2	48	42	64
g / C, Green / Cycle	0.24	0.24	0.02	0.65	0.57	0.87
(v / s)_i Volume / Saturation Flow Rate	0.23	0.01	0.01	0.02	0.02	0.56
s, saturation flow rate [veh/h]	3459	1589	1781	1870	1870	1589
c, Capacity [veh/h]	842	387	42	1213	1067	1380
d1, Uniform Delay [s]	27.39	21.33	35.57	4.67	6.97	1.45
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.10	0.02	4.00	0.05	0.06	2.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.02	0.31	0.03	0.04	0.64
d, Delay for Lane Group [s/veh]	32.49	21.35	39.57	4.71	7.03	3.73
Lane Group LOS	C	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.99	0.12	0.27	0.17	0.25	0.88
50th-Percentile Queue Length [ft/ln]	174.80	2.93	6.81	4.37	6.21	21.90
95th-Percentile Queue Length [veh/ln]	11.33	0.21	0.49	0.31	0.45	1.58
95th-Percentile Queue Length [ft/ln]	283.21	5.28	12.27	7.86	11.18	39.41

Movement, Approach, & Intersection Results

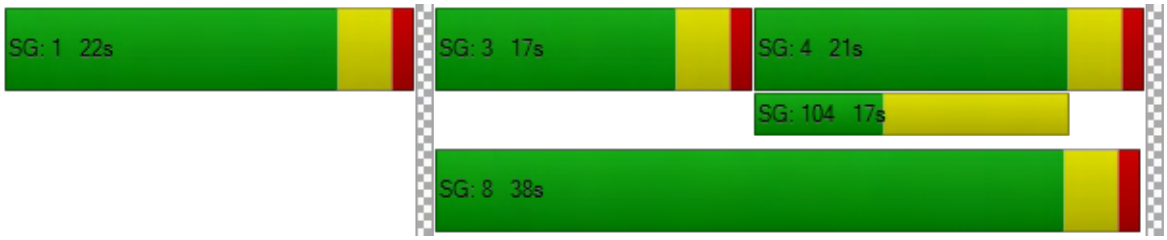
d_M, Delay for Movement [s/veh]	32.49	21.35	39.57	4.71	7.03	3.73
Movement LOS	C	C	D	A	A	A
d_A, Approach Delay [s/veh]	32.36		13.96		3.87	
Approach LOS	C		B		A	
d_I, Intersection Delay [s/veh]	16.94					
Intersection LOS	B					
Intersection V/C	0.762					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.82	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.531	0.000	0.000
Crosswalk LOS	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	37.00	37.00	37.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.213	5.652
Bicycle LOS	D	D	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 10: Indian Canyon Dr (NS) at Garnet Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	33.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.901

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	2	0	0	1	0	0
Pocket Length [ft]	132.00	100.00	100.00	223.00	100.00	100.00	166.00	100.00	100.00	75.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Garnet Ave			Garnet Ave		
Base Volume Input [veh/h]	42	335	19	111	298	82	123	11	89	6	6	12
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	77	0	0	104	700	491	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	439	21	120	426	788	624	11	97	6	6	12
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	117	6	32	114	210	167	3	26	2	2	3
Total Analysis Volume [veh/h]	49	469	22	128	455	842	667	12	104	6	6	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	103
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	8	7	4	0
Auxiliary Signal Groups									5,8			
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	7	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	30	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	11	28	0	29	46	0	25	21	21	25	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	10	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No	No	No	No	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C
C, Cycle Length [s]	103	103	103	103	103	103	103	103	103	103	103
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	5	54	54	9	58	58	21	23	32	1	3
g / C, Green / Cycle	0.05	0.52	0.52	0.09	0.56	0.56	0.20	0.22	0.31	0.01	0.03
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.09	0.07	0.13	0.53	0.19	0.01	0.07	0.00	0.01
s, saturation flow rate [veh/h]	1781	3560	1828	1781	3560	1589	3459	1870	1589	1781	1669
c, Capacity [veh/h]	93	1854	952	161	1990	888	705	415	497	21	50
d1, Uniform Delay [s]	47.62	13.03	13.04	45.96	11.50	21.33	40.48	31.43	26.05	50.52	49.11
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.53	0.21	0.40	8.55	0.27	19.91	7.36	0.03	0.21	7.11	4.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.17	0.18	0.79	0.23	0.95	0.95	0.03	0.21	0.28	0.38
d, Delay for Lane Group [s/veh]	52.16	13.23	13.44	54.52	11.77	41.25	47.84	31.46	26.26	57.63	53.92
Lane Group LOS	D	B	B	D	B	D	D	C	C	E	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.28	1.77	1.89	3.42	2.31	20.27	8.95	0.24	1.90	0.19	0.54
50th-Percentile Queue Length [ft/ln]	32.06	44.33	47.27	85.53	57.78	506.81	223.65	5.94	47.46	4.87	13.62
95th-Percentile Queue Length [veh/ln]	2.31	3.19	3.40	6.16	4.16	27.66	13.85	0.43	3.42	0.35	0.98
95th-Percentile Queue Length [ft/ln]	57.72	79.80	85.08	153.95	104.01	691.41	346.28	10.69	85.43	8.77	24.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.16	13.30	13.44	54.52	11.77	41.25	47.84	31.46	26.26	57.63	53.92	53.92
Movement LOS	D	B	B	D	B	D	D	C	C	E	D	D
d_A, Approach Delay [s/veh]	16.83			33.03			44.72			54.81		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	33.37											
Intersection LOS	C											
Intersection V/C	0.901											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	41.09	41.09	41.09
l_p,int, Pedestrian LOS Score for Intersection	0.000	3.258	2.732	2.007
Crosswalk LOS	F	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	466	816	330	330
d_b, Bicycle Delay [s]	30.30	18.06	35.90	35.90
l_b,int, Bicycle LOS Score for Intersection	1.857	2.735	2.852	1.601
Bicycle LOS	A	B	C	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 11: Indian Canyon Dr (NS) at Tramview Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0
Pocket Length [ft]	145.00	100.00	100.00	314.00	100.00	100.00
Speed [mph]	45.00		55.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Tramview Rd	
Base Volume Input [veh/h]	15	370	386	12	18	15
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	73	93	11	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	473	510	23	24	17
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	121	130	6	6	4
Total Analysis Volume [veh/h]	17	482	520	23	24	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	2

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.01	0.00	0.05	0.02
d_M, Delay for Movement [s/veh]	8.58	0.00	0.00	0.00	12.80	10.36
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.23	0.23
95th-Percentile Queue Length [ft/ln]	1.27	0.00	0.00	0.00	5.78	5.78
d_A, Approach Delay [s/veh]	0.29		0.00		11.79	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.58					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 12: Indian Canyon Dr (NS) at San Rafael Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.343

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	150.00	100.00	100.00	175.00	100.00	100.00	62.00	100.00	100.00	200.00	100.00	100.00
Speed [mph]	45.00			45.00			25.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			San Rafael Dr			San Rafael Dr		
Base Volume Input [veh/h]	34	309	16	105	327	53	47	62	32	23	71	109
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	68	0	12	81	0	0	0	0	0	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	402	18	125	435	57	51	67	34	25	77	123
Peak Hour Factor	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	105	5	33	113	15	13	17	9	7	20	32
Total Analysis Volume [veh/h]	37	418	19	130	453	59	53	70	35	26	80	128
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	21	0	11	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	42	32	32	42	35	35	16	9	9	16	7	7
g / C, Green / Cycle	0.64	0.48	0.48	0.64	0.52	0.52	0.24	0.14	0.14	0.24	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.04	0.12	0.12	0.12	0.14	0.14	0.04	0.04	0.02	0.02	0.04	0.08
s, saturation flow rate [veh/h]	1007	1870	1842	1118	1870	1796	1506	1870	1589	1466	1870	1589
c, Capacity [veh/h]	727	896	882	802	976	938	480	260	221	477	212	181
d1, Uniform Delay [s]	4.72	10.20	10.20	4.93	8.79	8.80	19.66	25.50	25.10	19.34	27.20	28.31
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	0.65	0.67	0.09	0.67	0.70	0.10	0.55	0.33	0.05	1.10	5.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.25	0.25	0.16	0.27	0.27	0.11	0.27	0.16	0.05	0.38	0.71
d, Delay for Lane Group [s/veh]	4.85	10.85	10.87	5.02	9.46	9.50	19.76	26.05	25.43	19.39	28.30	33.36
Lane Group LOS	A	B	B	A	A	A	B	C	C	B	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	1.65	1.63	0.45	1.75	1.69	0.63	1.00	0.49	0.27	1.11	1.99
50th-Percentile Queue Length [ft/ln]	3.57	41.22	40.84	11.30	43.67	42.34	15.76	24.93	12.29	6.86	27.75	49.85
95th-Percentile Queue Length [veh/ln]	0.26	2.97	2.94	0.81	3.14	3.05	1.13	1.80	0.88	0.49	2.00	3.59
95th-Percentile Queue Length [ft/ln]	6.43	74.20	73.52	20.34	78.60	76.22	28.37	44.88	22.12	12.34	49.96	89.73

Movement, Approach, & Intersection Results

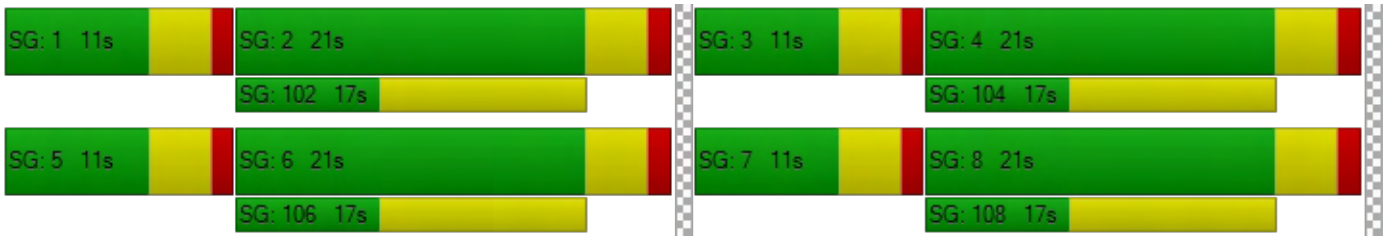
d_M, Delay for Movement [s/veh]	4.85	10.86	10.87	5.02	9.48	9.50	19.76	26.05	25.43	19.39	28.30	33.36
Movement LOS	A	B	B	A	A	A	B	C	C	B	C	C
d_A, Approach Delay [s/veh]	10.39			8.58			23.80			30.08		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	14.08											
Intersection LOS	B											
Intersection V/C	0.343											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.92	22.92	22.92	22.92
l_p,int, Pedestrian LOS Score for Intersection	2.578	2.657	2.211	2.393
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	515	515	515	515
d_b, Bicycle Delay [s]	18.19	18.19	18.19	18.19
l_b,int, Bicycle LOS Score for Intersection	1.951	2.089	1.820	1.946
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 13: Indian Canyon Dr (NS) at Racquet Club Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.313

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	85.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			No			Yes		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Racquet Club Rd			Racquet Club Rd		
Base Volume Input [veh/h]	63	286	26	68	318	33	28	132	38	32	165	67
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	63	0	12	69	0	0	0	0	0	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	372	28	86	413	35	30	142	42	34	179	78
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	99	7	23	110	9	8	38	11	9	48	21
Total Analysis Volume [veh/h]	73	396	30	91	439	37	32	151	45	36	190	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	21	0	11	21	0	11	20	0	12	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	47	37	37	47	37	37	15	8	8	15	8	8
g / C, Green / Cycle	0.67	0.53	0.53	0.67	0.53	0.53	0.22	0.11	0.11	0.22	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.07	0.11	0.12	0.08	0.13	0.13	0.02	0.05	0.06	0.03	0.08	0.08
s, saturation flow rate [veh/h]	1055	1870	1824	1100	1870	1819	1343	1870	1728	1406	1870	1684
c, Capacity [veh/h]	786	983	959	821	996	969	366	205	189	402	212	191
d1, Uniform Delay [s]	4.28	8.93	8.94	4.28	8.81	8.81	22.02	29.43	29.50	21.97	29.85	29.97
k, delay calibration	0.50	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.51	0.53	0.06	0.58	0.59	0.10	1.79	2.12	0.10	3.50	4.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.22	0.22	0.11	0.24	0.24	0.09	0.49	0.51	0.09	0.66	0.69
d, Delay for Lane Group [s/veh]	4.52	9.44	9.47	4.34	9.38	9.41	22.12	31.21	31.62	22.06	33.35	34.43
Lane Group LOS	A	A	A	A	A	A	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.27	1.51	1.49	0.29	1.68	1.65	0.39	1.55	1.52	0.44	2.29	2.21
50th-Percentile Queue Length [ft/ln]	6.78	37.73	37.14	7.27	41.95	41.15	9.77	38.84	37.97	11.00	57.22	55.28
95th-Percentile Queue Length [veh/ln]	0.49	2.72	2.67	0.52	3.02	2.96	0.70	2.80	2.73	0.79	4.12	3.98
95th-Percentile Queue Length [ft/ln]	12.20	67.91	66.85	13.08	75.52	74.08	17.59	69.91	68.35	19.79	103.00	99.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.52	9.46	9.47	4.34	9.39	9.41	22.12	31.35	31.62	22.06	33.63	34.43
Movement LOS	A	A	A	A	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.73			8.59			30.11			32.50		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	16.30											
Intersection LOS	B											
Intersection V/C	0.313											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	24.86	0.00	24.86
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.608	0.000	2.528
Crosswalk LOS	F	B	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	486	486	457	486
d_b, Bicycle Delay [s]	20.06	20.06	20.83	20.06
l_b,int, Bicycle LOS Score for Intersection	1.971	2.027	1.748	1.815
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	All-way stop	Delay (sec / veh):	295.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.960

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	6	8	63	13	131	153	548	18	13	509	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	8	149	14	271	258	728	18	14	694	130
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	2	42	4	76	72	204	5	4	194	36
Total Analysis Volume [veh/h]	11	7	9	167	16	303	289	815	20	16	777	146
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	392	526	444	835	436	923
Degree of Utilization, x	0.07	0.92	0.65	1.76	0.04	1.96

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.22	11.23	4.54	51.23	0.11	62.09
95th-Percentile Queue Length [ft]	5.53	280.64	113.49	1280.78	2.85	1552.30
Approach Delay [s/veh]	12.87	48.73	280.99		449.93	
Approach LOS	B	E	F		F	
Intersection Delay [s/veh]	295.94					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	860	153	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	860	153	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	40	0	0	0
Total Analysis Volume [veh/h]	0	905	161	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.83	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	24.99	22.36	7.46	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	10.34	10.34	0.31	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	258.40	258.40	7.79	7.79	0.00	0.00
d_A, Approach Delay [s/veh]	22.36		7.46		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	20.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 16: Indian Canyon Dr (NS) at Parcel 30 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 30 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0000	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.00	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	755	68	0	762	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1159	68	0	1210	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	305	18	0	318	0	1
Total Analysis Volume [veh/h]	1220	72	0	1274	0	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	22.55
Movement LOS	A	A		A		C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.46
d_A, Approach Delay [s/veh]	0.00		0.00		22.55	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	26.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.221

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	778	0	8	754	0	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1182	0	8	1202	0	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	311	0	2	316	0	12
Total Analysis Volume [veh/h]	1244	0	8	1265	0	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.01	0.00	0.22
d_M, Delay for Movement [s/veh]	0.00	0.00	11.53	0.00	0.00	26.68
Movement LOS	A	A	B	A		D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.04	0.00	0.82
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.09	1.09	0.00	20.48
d_A, Approach Delay [s/veh]	0.00		0.07		26.68	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	D					

Coachillin Industrial Park Parcels 30-31

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Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

Report File: G:\...\AM OYP Amphitheater MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	WB Left	0.462	14.6	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.669	33.7	C
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.924	13.5	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	EB Left	0.941	10.4	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	1.014	35.9	D
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Right	0.000	8.3	A
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	NB Thru	0.886	6.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	8	134	91	48	248	29	21	89	33	127	52	20
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	11	11	99	38	0	0	120	21	23	41	32
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	156	110	151	306	31	23	217	56	160	97	54
Peak Hour Factor	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360	0.8360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	47	33	45	92	9	7	65	17	48	29	16
Total Analysis Volume [veh/h]	14	187	132	181	366	37	28	260	67	191	116	65
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	15	0	0	15	0	0	45	0	0	45	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	23	23	23	23
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.38	0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.17	0.22	0.02	0.18	0.18	0.10
s, saturation flow rate [veh/h]	982	1743	1060	1840	1203	1805	1053	1759
c, Capacity [veh/h]	409	839	464	885	467	696	356	678
d1, Uniform Delay [s]	15.16	9.88	16.53	10.34	15.56	13.84	22.08	12.63
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	1.31	2.46	1.69	0.05	0.49	1.26	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.38	0.39	0.46	0.06	0.47	0.54	0.27
d, Delay for Lane Group [s/veh]	15.32	11.20	19.00	12.03	15.62	14.33	23.34	12.84
Lane Group LOS	B	B	B	B	B	B	C	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	2.11	1.90	2.79	0.23	2.59	2.26	1.34
50th-Percentile Queue Length [ft/ln]	3.19	52.63	47.38	69.83	5.81	64.68	56.56	33.60
95th-Percentile Queue Length [veh/ln]	0.23	3.79	3.41	5.03	0.42	4.66	4.07	2.42
95th-Percentile Queue Length [ft/ln]	5.74	94.74	85.28	125.69	10.45	116.42	101.81	60.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.32	11.20	11.20	19.00	12.03	12.03	15.62	14.33	14.33	23.34	12.84	12.84
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	11.37			14.19			14.43			18.23		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.58											
Intersection LOS	B											
Intersection V/C	0.462											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	367	1367	1367
d_b, Bicycle Delay [s]	20.01	20.01	3.01	3.01
l_b,int, Bicycle LOS Score for Intersection	2.109	2.523	2.145	2.173
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	33.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	16	193	119	17	410	16	4	78	50	346	72	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	16	814	40	41	0	0	100	17	314	32	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	225	943	59	484	18	4	184	71	688	110	29
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	63	263	16	135	5	1	51	20	192	31	8
Total Analysis Volume [veh/h]	25	251	1051	66	540	20	4	205	79	767	123	32
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	92
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	36	36	11	29	0	33	16	0	29	12	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	92	92	92	92	92	92	92	92	92	92	92
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	33	62	6	36	36	1	12	12	25	36
g / C, Green / Cycle	0.04	0.36	0.68	0.06	0.39	0.39	0.01	0.13	0.13	0.27	0.39
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.66	0.04	0.29	0.01	0.00	0.11	0.05	0.22	0.09
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1804
c, Capacity [veh/h]	66	678	1077	113	727	618	16	241	205	939	707
d1, Uniform Delay [s]	43.32	21.61	14.14	42.00	24.21	17.44	45.39	39.27	36.80	31.43	18.66
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.49	1.55	22.18	4.77	6.76	0.10	8.49	8.16	1.18	1.81	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.37	0.98	0.59	0.74	0.03	0.26	0.85	0.39	0.82	0.22
d, Delay for Lane Group [s/veh]	46.80	23.16	36.31	46.77	30.98	17.54	53.88	47.43	37.98	33.24	18.81
Lane Group LOS	D	C	D	D	C	B	D	D	D	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.59	3.85	19.71	1.52	10.18	0.25	0.12	4.75	1.59	7.44	1.98
50th-Percentile Queue Length [ft/ln]	14.68	96.26	492.87	37.93	254.49	6.30	3.05	118.75	39.63	185.91	49.58
95th-Percentile Queue Length [veh/ln]	1.06	6.93	27.00	2.73	15.41	0.45	0.22	8.32	2.85	11.91	3.57
95th-Percentile Queue Length [ft/ln]	26.43	173.27	674.92	68.27	385.31	11.33	5.50	208.11	71.33	297.71	89.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.80	23.16	36.31	46.77	30.98	17.54	53.88	47.43	37.98	33.24	18.81	18.81
Movement LOS	D	C	D	D	C	B	D	D	D	C	B	B
d_A, Approach Delay [s/veh]	34.02			32.21			44.93			30.82		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	33.72											
Intersection LOS	C											
Intersection V/C	0.669											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	696	543	261	174
d_b, Bicycle Delay [s]	19.57	24.40	34.78	38.35
l_b,int, Bicycle LOS Score for Intersection	3.749	2.593	2.035	3.081
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.924

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	877	168	16	279	68	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1259	168	16	1238	68	3
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	331	44	4	326	18	1
Total Analysis Volume [veh/h]	1325	177	17	1303	72	3
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	109	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	105	105	105	7
g / C, Green / Cycle	0.88	0.88	0.88	0.05
(v / s)_i Volume / Saturation Flow Rate	0.82	0.05	0.70	0.04
s, saturation flow rate [veh/h]	1832	349	1870	1772
c, Capacity [veh/h]	1609	164	1642	98
d1, Uniform Delay [s]	4.93	31.19	2.93	55.90
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.39	1.27	4.03	11.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.93	0.10	0.79	0.77
d, Delay for Lane Group [s/veh]	16.32	32.47	6.96	67.82
Lane Group LOS	B	C	A	E
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.36	0.40	1.98	2.56
50th-Percentile Queue Length [ft/ln]	133.98	10.12	49.49	64.07
95th-Percentile Queue Length [veh/ln]	9.16	0.73	3.56	4.61
95th-Percentile Queue Length [ft/ln]	228.90	18.21	89.08	115.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.32	16.32	32.47	6.96	67.82	67.82
Movement LOS	B	B	C	A	E	E
d_A, Approach Delay [s/veh]	16.32		7.29		67.82	
Approach LOS	B		A		E	
d_I, Intersection Delay [s/veh]	13.54					
Intersection LOS	B					
Intersection V/C	0.924					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	6.611	6.310	4.256
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.941

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	18	342	16	4	870	13	6	0	6	6	0	5
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1088	0	0	347	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1458	18	4	1288	15	6	0	6	6	0	5
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	408	5	1	361	4	2	0	2	2	0	1
Total Analysis Volume [veh/h]	22	1633	20	4	1442	17	7	0	7	7	0	6
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	104	0	0	104	0	0	16	0	0	16	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	109	109	109	109	109	109	3	3	3	3
g / C, Green / Cycle	0.91	0.91	0.91	0.91	0.91	0.91	0.02	0.02	0.02	0.02
(v / s)_i Volume / Saturation Flow Rate	0.06	0.87	0.01	0.01	0.39	0.39	0.00	0.00	0.00	0.00
s, saturation flow rate [veh/h]	364	1870	1589	308	1870	1862	1410	1589	2735	1589
c, Capacity [veh/h]	362	1704	1448	141	1704	1697	65	35	67	35
d1, Uniform Delay [s]	1.82	3.73	0.48	32.98	0.78	0.78	59.82	57.58	59.79	57.55
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.32	13.95	0.02	0.37	0.79	0.80	0.73	2.73	0.67	2.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.96	0.01	0.03	0.43	0.43	0.11	0.20	0.10	0.17
d, Delay for Lane Group [s/veh]	2.15	17.68	0.50	33.35	1.57	1.57	60.55	60.32	60.46	59.81
Lane Group LOS	A	B	A	C	A	A	E	E	E	E
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.09	6.60	0.01	0.10	0.37	0.37	0.23	0.24	0.11	0.20
50th-Percentile Queue Length [ft/ln]	2.37	165.03	0.18	2.55	9.35	9.37	5.66	5.89	2.82	5.03
95th-Percentile Queue Length [veh/ln]	0.17	10.81	0.01	0.18	0.67	0.67	0.41	0.42	0.20	0.36
95th-Percentile Queue Length [ft/ln]	4.27	270.37	0.32	4.59	16.84	16.87	10.19	10.60	5.07	9.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	2.15	17.68	0.50	33.35	1.57	1.57	60.55	60.32	60.32	60.46	59.81	59.81
Movement LOS	A	B	A	C	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	17.27			1.66			60.43			60.16		
Approach LOS	B			A			E			E		
d_I, Intersection Delay [s/veh]	10.42											
Intersection LOS	B											
Intersection V/C	0.941											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1667	1667	200	200
d_b, Bicycle Delay [s]	1.67	1.67	48.60	48.60
l_b,int, Bicycle LOS Score for Intersection	4.323	2.767	1.583	1.581
Bicycle LOS	E	C	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.014

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	0	229	1	294	125	103	0	0	212	130
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	31	30	76	99	180	693	137	125	97	141	329
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	32	30	324	100	498	828	248	125	97	370	469
Peak Hour Factor	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	9	9	95	29	146	243	73	37	28	108	137
Total Analysis Volume [veh/h]	40	38	35	380	117	584	971	291	147	114	434	550
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	11	0	22	22	22	28	25	0	27	24	24
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	85	85	85	85	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	4	7	18	21	49	24	37	7	20	42
g / C, Green / Cycle	0.05	0.08	0.21	0.24	0.57	0.28	0.43	0.08	0.23	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.21	0.06	0.37	0.28	0.25	0.06	0.23	0.35
s, saturation flow rate [veh/h]	1781	1724	1781	1870	1589	3459	1765	1781	1870	1589
c, Capacity [veh/h]	91	145	377	458	912	976	764	148	438	783
d1, Uniform Delay [s]	39.19	37.28	33.54	25.89	12.22	30.48	18.19	38.21	32.51	16.74
k, delay calibration	0.11	0.50	0.16	0.50	0.48	0.11	0.14	0.11	0.20	0.44
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.30	11.98	28.12	1.35	3.32	12.28	0.89	8.14	25.31	4.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.50	1.01	0.26	0.64	1.00	0.57	0.77	0.99	0.70
d, Delay for Lane Group [s/veh]	42.49	49.26	61.65	27.24	15.53	42.77	19.09	46.36	57.82	21.32
Lane Group LOS	D	D	F	C	B	D	B	D	E	C
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.88	1.91	9.93	1.90	6.43	10.40	5.64	2.48	11.02	7.68
50th-Percentile Queue Length [ft/ln]	22.08	47.83	248.32	47.44	160.73	259.91	140.90	62.11	275.60	192.03
95th-Percentile Queue Length [veh/ln]	1.59	3.44	15.16	3.42	10.59	15.68	9.53	4.47	16.47	12.23
95th-Percentile Queue Length [ft/ln]	39.74	86.09	379.03	85.39	264.69	392.11	238.23	111.80	411.73	305.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.49	49.26	49.26	61.65	27.24	15.53	42.77	19.09	19.09	46.36	57.82	21.32
Movement LOS	D	D	D	F	C	B	D	B	B	D	E	C
d_A, Approach Delay [s/veh]	46.86			33.01			35.40			38.35		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	35.93											
Intersection LOS	D											
Intersection V/C	1.014											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	165	424	494	471
d_b, Bicycle Delay [s]	35.79	26.41	24.09	24.85
l_b,int, Bicycle LOS Score for Intersection	1.746	3.343	3.884	3.371
Bicycle LOS	A	C	D	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.32	7.22	0.00	0.00	0.00
Movement LOS		A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.32		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.98					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.886

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	353	0	0	887	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1088	0	0	347	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1470	0	0	1306	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	387	0	0	344	0	0
Total Analysis Volume [veh/h]	1547	0	0	1375	0	0
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	109	0	0	109	0	11
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	112	112	112	0
g / C, Green / Cycle	0.93	0.93	0.93	0.00
(v / s)_i Volume / Saturation Flow Rate	0.83	0.00	0.74	0.00
s, saturation flow rate [veh/h]	1870	334	1870	1589
c, Capacity [veh/h]	1744	252	1744	1
d1, Uniform Delay [s]	1.57	0.00	1.02	0.00
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.10	0.00	3.70	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.00	0.79	0.00
d, Delay for Lane Group [s/veh]	8.67	0.00	4.72	0.00
Lane Group LOS	A	A	A	A
Critical Lane Group	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	3.44	0.00	1.79	0.00
50th-Percentile Queue Length [ft/ln]	86.01	0.00	44.80	0.00
95th-Percentile Queue Length [veh/ln]	6.19	0.00	3.23	0.00
95th-Percentile Queue Length [ft/ln]	154.82	0.00	80.64	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.67	8.67	0.00	4.72	0.00	0.00
Movement LOS	A	A	A	A		A
d_A, Approach Delay [s/veh]	8.67		4.72		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.81					
Intersection LOS	A					
Intersection V/C	0.886					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	6.685	6.401	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\PM OY MIT.vistro

Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

Report File: G:\...\PM OYP Amphitheater MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	EB Left	0.557	14.2	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.874	22.4	C
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.939	25.8	C
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	WB Left	0.849	10.4	B
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.995	35.5	D
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	EB Left	0.526	9.6	A
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	WB Right	0.840	6.6	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	37	292	108	33	146	15	21	99	14	81	76	60
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	26	24	50	10	0	0	55	4	31	98	88
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	342	140	85	168	17	23	162	20	118	180	152
Peak Hour Factor	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	89	36	22	44	4	6	42	5	31	47	40
Total Analysis Volume [veh/h]	59	357	146	89	175	18	24	169	21	123	188	158
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.28	0.10	0.10	0.02	0.10	0.10	0.20
s, saturation flow rate [veh/h]	1190	1779	895	1840	1035	1834	1193	1731
c, Capacity [veh/h]	732	1050	481	1086	178	507	304	478
d1, Uniform Delay [s]	7.46	7.02	11.88	5.62	27.36	17.53	23.91	19.64
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	1.56	0.85	0.36	0.34	0.46	0.86	2.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.48	0.19	0.18	0.13	0.37	0.40	0.72
d, Delay for Lane Group [s/veh]	7.67	8.58	12.72	5.98	27.70	17.99	24.78	21.74
Lane Group LOS	A	A	B	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.30	2.42	0.70	0.71	0.30	1.77	1.49	3.86
50th-Percentile Queue Length [ft/ln]	7.42	60.51	17.47	17.79	7.62	44.26	37.16	96.43
95th-Percentile Queue Length [veh/ln]	0.53	4.36	1.26	1.28	0.55	3.19	2.68	6.94
95th-Percentile Queue Length [ft/ln]	13.35	108.92	31.45	32.03	13.71	79.67	66.89	173.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.67	8.58	8.58	12.72	5.98	5.98	27.70	17.99	17.99	24.78	21.74	21.74
Movement LOS	A	A	A	B	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	8.49			8.11			19.08			22.53		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.22											
Intersection LOS	B											
Intersection V/C	0.557											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	233	233	1500	1500
d_b, Bicycle Delay [s]	23.41	23.41	1.88	1.88
l_b,int, Bicycle LOS Score for Intersection	2.487	2.025	1.913	2.333
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.874

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	12	400	305	27	212	0	5	82	14	178	89	33
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	37	405	8	37	0	0	40	8	692	80	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	470	735	37	266	0	5	128	24	884	177	65
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	121	189	10	68	0	1	33	6	227	46	17
Total Analysis Volume [veh/h]	28	484	756	38	274	0	5	132	25	909	182	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	69
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	22	22	11	22	0	21	11	0	25	15	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	69	69	69	69	69	69	69	69	69	69	69
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	22	47	4	22	22	1	7	7	21	27
g / C, Green / Cycle	0.04	0.31	0.68	0.05	0.33	0.33	0.01	0.10	0.10	0.30	0.39
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.48	0.02	0.15	0.00	0.00	0.07	0.02	0.26	0.14
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1785
c, Capacity [veh/h]	79	589	1075	97	608	517	20	179	152	1050	693
d1, Uniform Delay [s]	32.13	21.93	6.92	31.62	18.47	0.00	33.96	30.47	28.77	22.78	15.06
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.68	12.24	3.86	2.53	2.40	0.00	6.50	5.81	0.50	2.29	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.82	0.70	0.39	0.45	0.00	0.25	0.74	0.16	0.87	0.36
d, Delay for Lane Group [s/veh]	34.82	34.18	10.78	34.16	20.88	0.00	40.46	36.28	29.27	25.07	15.37
Lane Group LOS	C	C	B	C	C	A	D	D	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.47	7.97	4.31	0.62	3.28	0.00	0.11	2.18	0.36	6.10	2.29
50th-Percentile Queue Length [ft/ln]	11.68	199.25	107.67	15.45	81.89	0.00	2.77	54.58	9.00	152.39	57.17
95th-Percentile Queue Length [veh/ln]	0.84	12.60	7.71	1.11	5.90	0.00	0.20	3.93	0.65	10.14	4.12
95th-Percentile Queue Length [ft/ln]	21.02	314.99	192.76	27.81	147.41	0.00	4.99	98.24	16.20	253.62	102.91

Movement, Approach, & Intersection Results

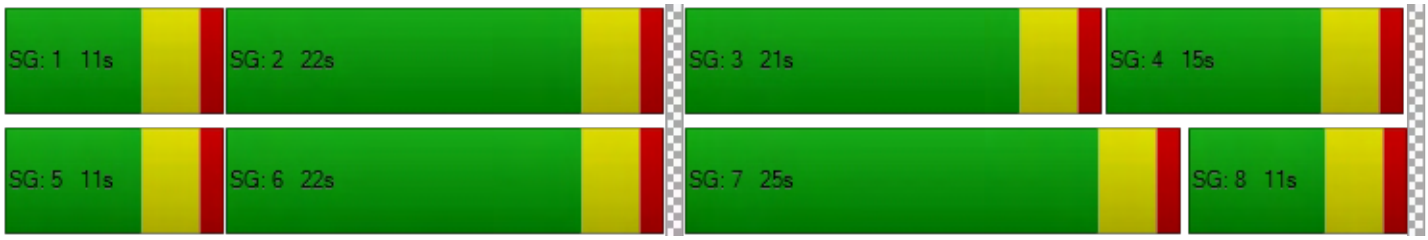
d_M, Delay for Movement [s/veh]	34.82	34.18	10.78	34.16	20.88	0.00	40.46	36.28	29.27	25.07	15.37	15.37
Movement LOS	C	C	B	C	C	A	D	D	C	C	B	B
d_A, Approach Delay [s/veh]	20.24			22.50			35.33			22.98		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	22.42											
Intersection LOS	C											
Intersection V/C	0.874											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	522	522	203	319
d_b, Bicycle Delay [s]	18.85	18.85	27.86	24.38
l_b,int, Bicycle LOS Score for Intersection	3.652	2.074	1.827	3.470
Bicycle LOS	D	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	25.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.939

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	393	95	12	731	238	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1176	95	12	1189	238	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	309	25	3	313	63	4
Total Analysis Volume [veh/h]	1238	100	13	1252	251	16
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	119
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	21	0	0	21	98	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	119	119	119	119
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	91	91	91	20
g / C, Green / Cycle	0.76	0.76	0.76	0.17
(v / s)_i Volume / Saturation Flow Rate	0.72	0.03	0.67	0.15
s, saturation flow rate [veh/h]	1846	409	1870	1768
c, Capacity [veh/h]	1410	115	1428	299
d1, Uniform Delay [s]	12.05	46.10	10.03	48.33
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.56	1.98	7.84	9.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.11	0.88	0.89
d, Delay for Lane Group [s/veh]	26.61	48.08	17.87	57.56
Lane Group LOS	C	D	B	E
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	24.16	0.39	17.48	8.49
50th-Percentile Queue Length [ft/ln]	603.92	9.84	437.09	212.16
95th-Percentile Queue Length [veh/ln]	32.22	0.71	24.34	13.26
95th-Percentile Queue Length [ft/ln]	805.43	17.72	608.53	331.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.61	26.61	48.08	17.87	57.56	57.56
Movement LOS	C	C	D	B	E	E
d_A, Approach Delay [s/veh]	26.61		18.18		57.56	
Approach LOS	C		B		E	
d_I, Intersection Delay [s/veh]	25.77					
Intersection LOS	C					
Intersection V/C	0.939					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	59.50	59.50	59.50
l_b,int, Bicycle LOS Score for Intersection	6.340	6.220	4.573
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.849

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	10	714	4	0	420	3	9	0	13	3	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	529	810	0	926	0	0	0	0	142	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	1302	814	0	1380	3	9	0	15	145	0	1
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	344	215	0	365	1	2	0	4	38	0	0
Total Analysis Volume [veh/h]	11	1376	860	0	1459	3	10	0	16	153	0	1
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	11	0	0	11	0	0	109	0	0	109	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	100	100	100	100	100	100	12	12	12	12
g / C, Green / Cycle	0.83	0.83	0.83	0.83	0.83	0.83	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.03	0.74	0.54	0.00	0.39	0.39	0.01	0.01	0.06	0.00
s, saturation flow rate [veh/h]	363	1870	1589	394	1870	1869	1416	1589	2713	1589
c, Capacity [veh/h]	318	1556	1323	203	1556	1555	175	161	258	161
d1, Uniform Delay [s]	5.17	6.39	3.68	0.00	2.77	2.77	50.95	48.96	54.62	48.49
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	7.69	2.49	0.00	1.02	1.02	0.13	0.27	2.17	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.88	0.65	0.00	0.47	0.47	0.06	0.10	0.59	0.01
d, Delay for Lane Group [s/veh]	5.38	14.09	6.17	0.00	3.79	3.79	51.09	49.22	56.79	48.51
Lane Group LOS	A	B	A	A	A	A	D	D	E	D
Critical Lane Group	No	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.08	11.49	3.85	0.00	2.32	2.32	0.29	0.45	2.35	0.03
50th-Percentile Queue Length [ft/ln]	2.04	287.16	96.26	0.00	58.06	58.04	7.14	11.24	58.72	0.69
95th-Percentile Queue Length [veh/ln]	0.15	17.04	6.93	0.00	4.18	4.18	0.51	0.81	4.23	0.05
95th-Percentile Queue Length [ft/ln]	3.67	426.12	173.26	0.00	104.50	104.47	12.86	20.23	105.70	1.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.38	14.09	6.17	0.00	3.79	3.79	51.09	49.22	49.22	56.79	48.51	48.51
Movement LOS	A	B	A	A	A	A	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	11.01			3.79			49.94			56.74		
Approach LOS	B			A			D			E		
d_I, Intersection Delay [s/veh]	10.37											
Intersection LOS	B											
Intersection V/C	0.849											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	117	1750	1750
d_b, Bicycle Delay [s]	53.20	53.20	0.94	0.94
l_b,int, Bicycle LOS Score for Intersection	5.267	2.766	1.603	1.814
Bicycle LOS	F	C	A	A

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	35.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.995

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	1	3	123	1	139	222	232	0	1	185	145
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	72	62	59	236	22	461	148	277	28	22	269	67
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	63	62	369	23	612	388	528	28	23	469	224
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	17	17	101	6	168	107	145	8	6	129	62
Total Analysis Volume [veh/h]	79	69	68	405	25	673	426	580	31	25	515	246
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	79
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	11	11	0	25	25	25	14	32	0	11	29	29
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	79	79	79	79	79	79	79	79	79	79
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	10	20	24	38	10	31	3	24	47
g / C, Green / Cycle	0.07	0.12	0.25	0.30	0.48	0.13	0.39	0.04	0.30	0.60
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.23	0.01	0.42	0.12	0.33	0.01	0.28	0.15
s, saturation flow rate [veh/h]	1781	1719	1781	1870	1589	3459	1853	1781	1870	1589
c, Capacity [veh/h]	131	211	448	561	759	439	715	68	555	952
d1, Uniform Delay [s]	35.51	33.10	28.70	19.64	18.73	34.39	22.27	37.10	26.98	7.53
k, delay calibration	0.11	0.50	0.16	0.50	0.50	0.11	0.32	0.11	0.25	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.37	14.57	9.76	0.15	14.45	14.15	8.40	3.25	14.33	0.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.65	0.90	0.04	0.89	0.97	0.85	0.37	0.93	0.26
d, Delay for Lane Group [s/veh]	39.88	47.67	38.46	19.79	33.18	48.54	30.67	40.35	41.31	7.67
Lane Group LOS	D	D	D	B	C	D	C	D	D	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.60	3.29	7.73	0.31	11.76	4.54	10.27	0.50	10.31	1.43
50th-Percentile Queue Length [ft/ln]	40.07	82.33	193.21	7.78	294.12	113.60	256.86	12.39	257.76	35.67
95th-Percentile Queue Length [veh/ln]	2.89	5.93	12.29	0.56	17.39	8.04	15.53	0.89	15.58	2.57
95th-Percentile Queue Length [ft/ln]	72.13	148.20	307.20	14.00	434.75	201.00	388.29	22.30	389.41	64.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.88	47.67	47.67	38.46	19.79	33.18	48.54	30.67	30.67	40.35	41.31	7.67
Movement LOS	D	D	D	D	B	C	D	C	C	D	D	A
d_A, Approach Delay [s/veh]	44.82			34.81			38.01			30.75		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	35.54											
Intersection LOS	D											
Intersection V/C	0.995											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	177	532	709	633
d_b, Bicycle Delay [s]	32.81	21.29	16.46	18.46
l_b,int, Bicycle LOS Score for Intersection	1.916	3.380	3.271	2.857
Bicycle LOS	A	C	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	142	810	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	142	810	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	37	213	0	0	0
Total Analysis Volume [veh/h]	0	149	853	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.14	0.53	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	8.85	9.65	0.00	0.00	0.00
Movement LOS		A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.48	2.91	2.91	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	11.89	72.64	72.64	0.00	0.00
d_A, Approach Delay [s/veh]	8.85		9.65		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	9.53					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	6.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	724	0	0	423	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	529	0	43	926	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1312	0	43	1384	0	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	345	0	11	364	0	2
Total Analysis Volume [veh/h]	1381	0	45	1457	0	8
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	109	0	0	109	0	11
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	110	110	110	2
g / C, Green / Cycle	0.92	0.92	0.92	0.01
(v / s)_i Volume / Saturation Flow Rate	0.74	0.11	0.78	0.01
s, saturation flow rate [veh/h]	1870	392	1870	1589
c, Capacity [veh/h]	1719	319	1719	22
d1, Uniform Delay [s]	1.50	7.79	1.77	58.57
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.09	0.92	5.40	9.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.14	0.85	0.36
d, Delay for Lane Group [s/veh]	5.59	8.71	7.17	67.99
Lane Group LOS	A	A	A	E
Critical Lane Group	No	No	Yes	Yes
50th-Percentile Queue Length [veh/ln]	1.95	0.52	2.58	0.30
50th-Percentile Queue Length [ft/ln]	48.82	12.98	64.45	7.49
95th-Percentile Queue Length [veh/ln]	3.52	0.93	4.64	0.54
95th-Percentile Queue Length [ft/ln]	87.88	23.37	116.02	13.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.59	5.59	8.71	7.17	0.00	67.99
Movement LOS	A	A	A	A		E
d_A, Approach Delay [s/veh]	5.59		7.22		67.99	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.61					
Intersection LOS	A					
Intersection V/C	0.840					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	6.411	6.611	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Coachillin Industrial Park Parcels 30-31

Vistro File: G:\...\SAT OY MIT.vistro

Scenario 3 Opening Year (2023) Plus Project With Amphitheater Event

Report File: G:\...\SAT OYP Amphitheater MIT.pdf

10/8/2021

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Indian Canyon Dr (NS) at Pierson Blvd (EW)	Signalized	HCM 6th Edition	EB Left	0.408	14.7	B
2	Indian Canyon Dr (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	EB Left	0.840	19.6	B
5	Indian Canyon Dr (NS) at Project Dwy (EW)	Signalized	HCM 6th Edition	WB Left	0.849	13.9	B
6	Indian Canyon Dr (NS) at 19th Ave (EW)	Signalized	HCM 6th Edition	NB Thru	1.043	38.0	D
14	Little Morongo Rd (NS) at Dillon Rd (EW)	Signalized	HCM 6th Edition	SB Left	0.819	28.5	C
15	Project Dwy (NS) at 19th Ave (EW)	Two-way stop	HCM 6th Edition	SB Right	0.834	22.4	C
17	Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)	Signalized	HCM 6th Edition	WB Right	0.760	6.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Indian Canyon Dr (NS) at Pierson Blvd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.408

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Pierson Blvd			Pierson Blvd		
Base Volume Input [veh/h]	16	153	45	25	143	25	12	77	23	53	100	34
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	32	93	8	0	0	95	5	14	81	83
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	171	81	120	163	27	12	178	30	71	189	119
Peak Hour Factor	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960	0.8960
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	48	23	33	45	8	3	50	8	20	53	33
Total Analysis Volume [veh/h]	26	191	90	134	182	30	13	199	33	79	211	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	62
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	12	0	0	12	0	0	48	0	0	48	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	62	62	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	37	37	37	37	17	17	17	17
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.27	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.02	0.16	0.12	0.12	0.01	0.13	0.07	0.20
s, saturation flow rate [veh/h]	1169	1770	1098	1824	1036	1824	1148	1751
c, Capacity [veh/h]	731	1070	669	1103	167	486	256	466
d1, Uniform Delay [s]	7.14	5.76	8.71	5.48	28.42	19.12	25.67	20.77
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.60	0.67	0.39	0.20	0.73	0.68	2.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.26	0.20	0.19	0.08	0.48	0.31	0.74
d, Delay for Lane Group [s/veh]	7.23	6.36	9.38	5.87	28.61	19.85	26.34	23.08
Lane Group LOS	A	A	A	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.13	1.11	0.82	0.79	0.17	2.39	1.01	4.08
50th-Percentile Queue Length [ft/ln]	3.22	27.73	20.43	19.70	4.30	59.71	25.23	102.11
95th-Percentile Queue Length [veh/ln]	0.23	2.00	1.47	1.42	0.31	4.30	1.82	7.35
95th-Percentile Queue Length [ft/ln]	5.80	49.92	36.77	35.45	7.74	107.47	45.41	183.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.23	6.36	6.36	9.38	5.87	5.87	28.61	19.85	19.85	26.34	23.08	23.08
Movement LOS	A	A	A	A	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	6.43			7.23			20.32			23.69		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	14.74											
Intersection LOS	B											
Intersection V/C	0.408											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	258	258	1419	1419
d_b, Bicycle Delay [s]	23.52	23.52	2.61	2.61
l_b,int, Bicycle LOS Score for Intersection	2.066	2.131	1.964	2.258
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Indian Canyon Dr (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	8	203	162	20	208	3	4	56	20	186	81	18
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	37	646	9	18	0	0	64	7	588	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	256	821	31	243	3	4	124	29	789	142	27
Peak Hour Factor	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460	0.9460
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	68	217	8	64	1	1	33	8	209	38	7
Total Analysis Volume [veh/h]	17	271	868	33	257	3	4	131	31	834	150	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	66
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	2	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups			2,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	7	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	13	13	11	13	0	31	11	0	31	11	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	10	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No		No	No		No	No	
Maximum Recall	No	No	No	No	No		No	No		No	No	
Pedestrian Recall	No	No	No	No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C
C, Cycle Length [s]	66	66	66	66	66	66	66	66	66	66	66
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	44	3	18	18	1	7	7	24	30
g / C, Green / Cycle	0.03	0.25	0.67	0.05	0.27	0.27	0.01	0.10	0.10	0.36	0.45
(v / s)_i Volume / Saturation Flow Rate	0.01	0.14	0.55	0.02	0.14	0.00	0.00	0.07	0.02	0.24	0.10
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1870	1589	1781	1870	1589	3459	1818
c, Capacity [veh/h]	55	462	1059	90	499	424	17	191	162	1242	821
d1, Uniform Delay [s]	31.44	21.98	8.13	30.44	20.66	17.85	32.59	28.73	27.25	17.93	11.04
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.20	5.39	7.10	2.49	3.77	0.03	7.12	4.33	0.57	0.64	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.59	0.82	0.37	0.52	0.01	0.24	0.69	0.19	0.67	0.22
d, Delay for Lane Group [s/veh]	34.63	27.37	15.22	32.92	24.43	17.88	39.71	33.06	27.82	18.57	11.18
Lane Group LOS	C	C	B	C	C	B	D	C	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.29	3.80	6.07	0.51	3.33	0.03	0.09	1.99	0.42	4.36	1.23
50th-Percentile Queue Length [ft/ln]	7.14	94.95	151.74	12.85	83.37	0.80	2.25	49.72	10.51	109.08	30.70
95th-Percentile Queue Length [veh/ln]	0.51	6.84	10.11	0.93	6.00	0.06	0.16	3.58	0.76	7.79	2.21
95th-Percentile Queue Length [ft/ln]	12.84	170.91	252.75	23.13	150.07	1.44	4.05	89.49	18.91	194.73	55.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.63	27.37	15.22	32.92	24.43	17.88	39.71	33.06	27.82	18.57	11.18	11.18
Movement LOS	C	C	B	C	C	B	D	C	C	B	B	B
d_A, Approach Delay [s/veh]	18.35			25.32			32.24			17.26		
Approach LOS	B			C			C			B		
d_I, Intersection Delay [s/veh]	19.59											
Intersection LOS	B											
Intersection V/C	0.840											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	273	273	212	212
d_b, Bicycle Delay [s]	24.61	24.61	26.37	26.37
l_b,int, Bicycle LOS Score for Intersection	3.467	2.043	1.834	3.231
Bicycle LOS	C	B	A	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Indian Canyon Dr (NS) at Project Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.849

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Project Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	676	83	11	586	176	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1080	83	11	1034	176	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	284	22	3	272	46	3
Total Analysis Volume [veh/h]	1137	87	12	1088	185	11
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	7	0	0	7	7	0
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	11	0	0	11	79	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	C
C, Cycle Length [s]	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	70	70	70	12
g / C, Green / Cycle	0.78	0.78	0.78	0.13
(v / s)_i Volume / Saturation Flow Rate	0.66	0.03	0.58	0.11
s, saturation flow rate [veh/h]	1847	456	1870	1769
c, Capacity [veh/h]	1435	220	1453	237
d1, Uniform Delay [s]	6.62	22.19	5.34	37.89
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.61	0.47	3.58	7.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.05	0.75	0.83
d, Delay for Lane Group [s/veh]	13.23	22.67	8.92	45.10
Lane Group LOS	B	C	A	D
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.25	0.19	5.47	4.61
50th-Percentile Queue Length [ft/ln]	206.33	4.82	136.78	115.15
95th-Percentile Queue Length [veh/ln]	12.96	0.35	9.31	8.13
95th-Percentile Queue Length [ft/ln]	324.12	8.67	232.67	203.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.23	13.23	22.67	8.92	45.10	45.10
Movement LOS	B	B	C	A	D	D
d_A, Approach Delay [s/veh]	13.23		9.07		45.10	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	13.89					
Intersection LOS	B					
Intersection V/C	0.849					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	45.00	45.00	45.00
l_b,int, Bicycle LOS Score for Intersection	6.152	5.947	4.456
Bicycle LOS	F	F	E

Sequence

Ring 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 6: Indian Canyon Dr (NS) at 19th Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	38.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.043

Intersection Setup

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Indian Canyon Dr			Indian Canyon Dr			19th Ave			19th Ave		
Base Volume Input [veh/h]	17	345	17	1	407	5	11	0	10	1	0	2
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	778	153	0	754	0	0	0	0	860	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	1151	172	1	1194	5	11	0	10	861	0	2
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	293	44	0	304	1	3	0	3	219	0	1
Total Analysis Volume [veh/h]	19	1173	175	1	1217	5	11	0	10	878	0	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	89
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	57	0	0	57	0	0	32	0	0	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C
C, Cycle Length [s]	89	89	89	89	89	89	89	89	89	89
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	53	53	53	53	53	53	28	28	28	28
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.60	0.60	0.31	0.31	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.63	0.11	0.00	0.33	0.33	0.01	0.01	0.32	0.00
s, saturation flow rate [veh/h]	456	1870	1589	478	1870	1867	1415	1589	2728	1589
c, Capacity [veh/h]	250	1112	945	82	1112	1110	495	501	869	501
d1, Uniform Delay [s]	18.42	18.01	8.20	44.40	10.85	10.85	22.41	20.95	32.78	20.85
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	42.73	0.43	0.27	1.96	1.96	0.02	0.02	16.67	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	1.05	0.19	0.01	0.55	0.55	0.02	0.02	1.01	0.00
d, Delay for Lane Group [s/veh]	19.01	60.74	8.64	44.67	12.81	12.81	22.43	20.97	49.44	20.85
Lane Group LOS	B	F	A	D	B	B	C	C	F	C
Critical Lane Group	No	Yes	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.27	29.60	1.29	0.03	6.04	6.03	0.16	0.14	11.38	0.03
50th-Percentile Queue Length [ft/ln]	6.74	740.04	32.24	0.67	150.97	150.79	4.11	3.59	284.56	0.71
95th-Percentile Queue Length [veh/ln]	0.49	40.28	2.32	0.05	10.07	10.06	0.30	0.26	17.02	0.05
95th-Percentile Queue Length [ft/ln]	12.14	1006.99	58.04	1.21	251.72	251.49	7.39	6.45	425.46	1.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.01	60.74	8.64	44.67	12.81	12.81	22.43	20.97	20.97	49.44	20.85	20.85
Movement LOS	B	F	A	D	B	B	C	C	C	F	C	C
d_A, Approach Delay [s/veh]	53.49			12.83			21.73			49.38		
Approach LOS	D			B			C			D		
d_I, Intersection Delay [s/veh]	38.02											
Intersection LOS	D											
Intersection V/C	1.043											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1191	1191	629	629
d_b, Bicycle Delay [s]	7.28	7.28	20.90	20.90
l_b,int, Bicycle LOS Score for Intersection	3.815	2.569	1.594	3.012
Bicycle LOS	D	B	A	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 14: Little Morongo Rd (NS) at Dillon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.819

Intersection Setup

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	205.00	100.00	100.00	146.00	100.00	100.00
Speed [mph]	30.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Little Morongo Rd			Little Morongo Rd			Dillon Rd			Dillon Rd		
Base Volume Input [veh/h]	0	0	0	80	1	130	97	166	0	1	171	54
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	6	8	63	13	131	153	548	18	13	509	72
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	8	149	14	271	258	728	18	14	694	130
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	2	42	4	76	72	204	5	4	194	36
Total Analysis Volume [veh/h]	11	7	9	167	16	303	289	815	20	16	777	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	82
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	5	2	0	1	6	6	3	8	0	7	4	4
Auxiliary Signal Groups						3,6						1,4
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	7
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	30
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	13	11	0	13	11	11	18	47	0	11	40	40
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	7	7
Pedestrian Clearance [s]	0	10	0	0	10	10	0	10	0	0	10	10
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall	No	No		No	No	No	No	No		No	No	No
Maximum Recall	No	No		No	No	No	No	No		No	No	No
Pedestrian Recall	No	No		No	No	No	No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	L	C	R
C, Cycle Length [s]	82	82	82	82	82	82	82	82	82	82
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	2	8	9	15	33	14	47	2	36	49
g / C, Green / Cycle	0.02	0.10	0.11	0.19	0.40	0.17	0.57	0.03	0.43	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.09	0.01	0.19	0.08	0.45	0.01	0.42	0.09
s, saturation flow rate [veh/h]	1781	1701	1781	1870	1589	3459	1862	1781	1870	1589
c, Capacity [veh/h]	34	164	196	349	637	572	1066	47	811	941
d1, Uniform Delay [s]	39.70	33.83	35.86	27.36	18.19	31.19	13.61	39.23	22.53	7.51
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.30	0.11	0.41	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.21	1.19	10.01	0.25	0.55	0.69	3.49	4.16	20.21	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.10	0.85	0.05	0.48	0.51	0.78	0.34	0.96	0.16
d, Delay for Lane Group [s/veh]	44.91	35.01	45.87	27.61	18.74	31.88	17.09	43.40	42.74	7.59
Lane Group LOS	D	D	D	C	B	C	B	D	D	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.27	0.34	3.54	0.26	3.70	2.42	9.67	0.35	16.37	0.87
50th-Percentile Queue Length [ft/ln]	6.63	8.51	88.53	6.46	92.51	60.44	241.77	8.70	409.17	21.70
95th-Percentile Queue Length [veh/ln]	0.48	0.61	6.37	0.46	6.66	4.35	14.77	0.63	23.00	1.56
95th-Percentile Queue Length [ft/ln]	11.94	15.31	159.35	11.62	166.52	108.78	369.28	15.65	575.04	39.05

Movement, Approach, & Intersection Results

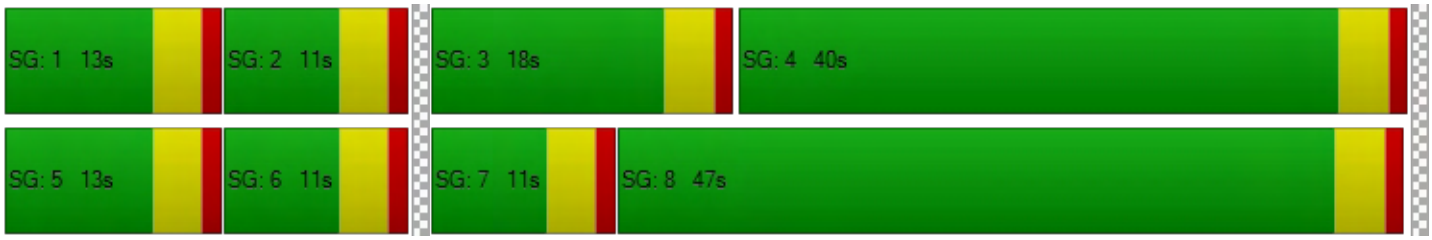
d_M, Delay for Movement [s/veh]	44.91	35.01	35.01	45.87	27.61	18.74	31.88	17.09	17.09	43.40	42.74	7.59
Movement LOS	D	D	D	D	C	B	C	B	B	D	D	A
d_A, Approach Delay [s/veh]	39.05			28.36			20.89			37.28		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	28.47											
Intersection LOS	C											
Intersection V/C	0.819											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	171	171	1049	878
d_b, Bicycle Delay [s]	34.30	34.30	9.27	12.90
l_b,int, Bicycle LOS Score for Intersection	1.604	2.362	3.414	3.109
Bicycle LOS	A	B	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: Project Dwy (NS) at 19th Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.834

Intersection Setup

Name	Project Dwy		19th Ave		19th Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		19th Ave		19th Ave	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.04	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	860	153	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	860	153	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	226	40	0	0	0
Total Analysis Volume [veh/h]	0	905	161	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.83	0.10	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	22.36	7.46	0.00	0.00	0.00
Movement LOS		C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	10.34	0.31	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	258.40	7.79	7.79	0.00	0.00
d_A, Approach Delay [s/veh]	22.36		7.46		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	20.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 17: Indian Canyon Dr (NS) at Parcel 31 Dwy (EW)

Control Type:	Signalized	Delay (sec / veh):	6.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.760

Intersection Setup

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		No	

Volumes

Name	Indian Canyon Dr		Indian Canyon Dr		Parcel 31 Dwy	
Base Volume Input [veh/h]	373	0	0	414	0	0
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0000	1.0400
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.04	1.04	1.04	1.04	1.00	1.04
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	778	0	8	754	0	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1182	0	8	1202	0	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	311	0	2	316	0	12
Total Analysis Volume [veh/h]	1244	0	8	1265	0	47
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	113
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal group	2	0	0	6	0	4
Auxiliary Signal Groups						
Lead / Lag	-	-	-	-	-	-
Minimum Green [s]	7	0	0	7	0	7
Maximum Green [s]	30	0	0	30	0	30
Amber [s]	3.0	0.0	0.0	3.0	0.0	3.0
All red [s]	1.0	0.0	0.0	1.0	0.0	1.0
Split [s]	16	0	0	16	0	97
Vehicle Extension [s]	3.0	0.0	0.0	3.0	0.0	3.0
Walk [s]	7	0	0	7	0	7
Pedestrian Clearance [s]	10	0	0	10	0	10
Rest In Walk	No			No		No
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	0.0	2.0
Minimum Recall	No			No		No
Maximum Recall	No			No		No
Pedestrian Recall	No			No		No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R
C, Cycle Length [s]	113	113	113	113
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	100	100	100	5
g / C, Green / Cycle	0.88	0.88	0.88	0.05
(v / s)_i Volume / Saturation Flow Rate	0.67	0.02	0.68	0.03
s, saturation flow rate [veh/h]	1870	447	1870	1589
c, Capacity [veh/h]	1648	339	1648	76
d1, Uniform Delay [s]	2.39	8.45	2.47	52.71
k, delay calibration	0.50	0.50	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.27	0.13	3.50	7.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.02	0.77	0.61
d, Delay for Lane Group [s/veh]	5.66	8.57	5.97	60.48
Lane Group LOS	A	A	A	E
Critical Lane Group	No	No	Yes	Yes
50th-Percentile Queue Length [veh/ln]	1.50	0.08	1.60	1.47
50th-Percentile Queue Length [ft/ln]	37.42	1.99	40.00	36.80
95th-Percentile Queue Length [veh/ln]	2.69	0.14	2.88	2.65
95th-Percentile Queue Length [ft/ln]	67.36	3.58	72.00	66.24

Movement, Approach, & Intersection Results

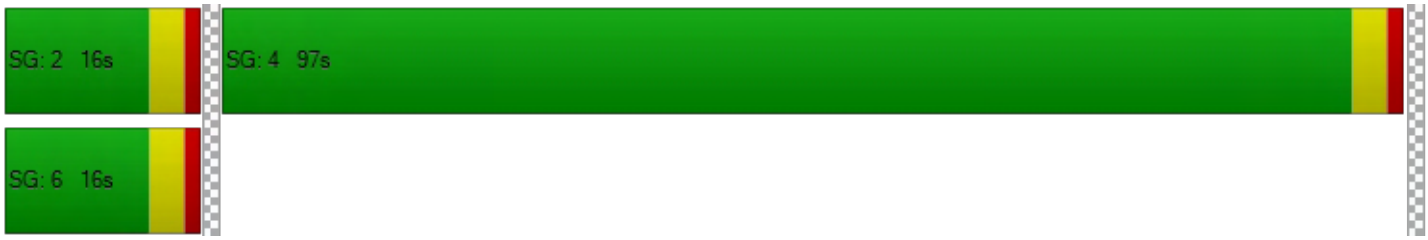
d_M, Delay for Movement [s/veh]	5.66	5.66	8.57	5.97	0.00	60.48
Movement LOS	A	A	A	A		E
d_A, Approach Delay [s/veh]	5.66		5.98		60.48	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.82					
Intersection LOS	A					
Intersection V/C	0.760					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000
Crosswalk LOS	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	56.50	56.50	56.50
l_b,int, Bicycle LOS Score for Intersection	6.185	6.233	4.132
Bicycle LOS	F	F	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX E

TRAFFIC SIGNAL WARRANT ANALYSIS

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday AM

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 580

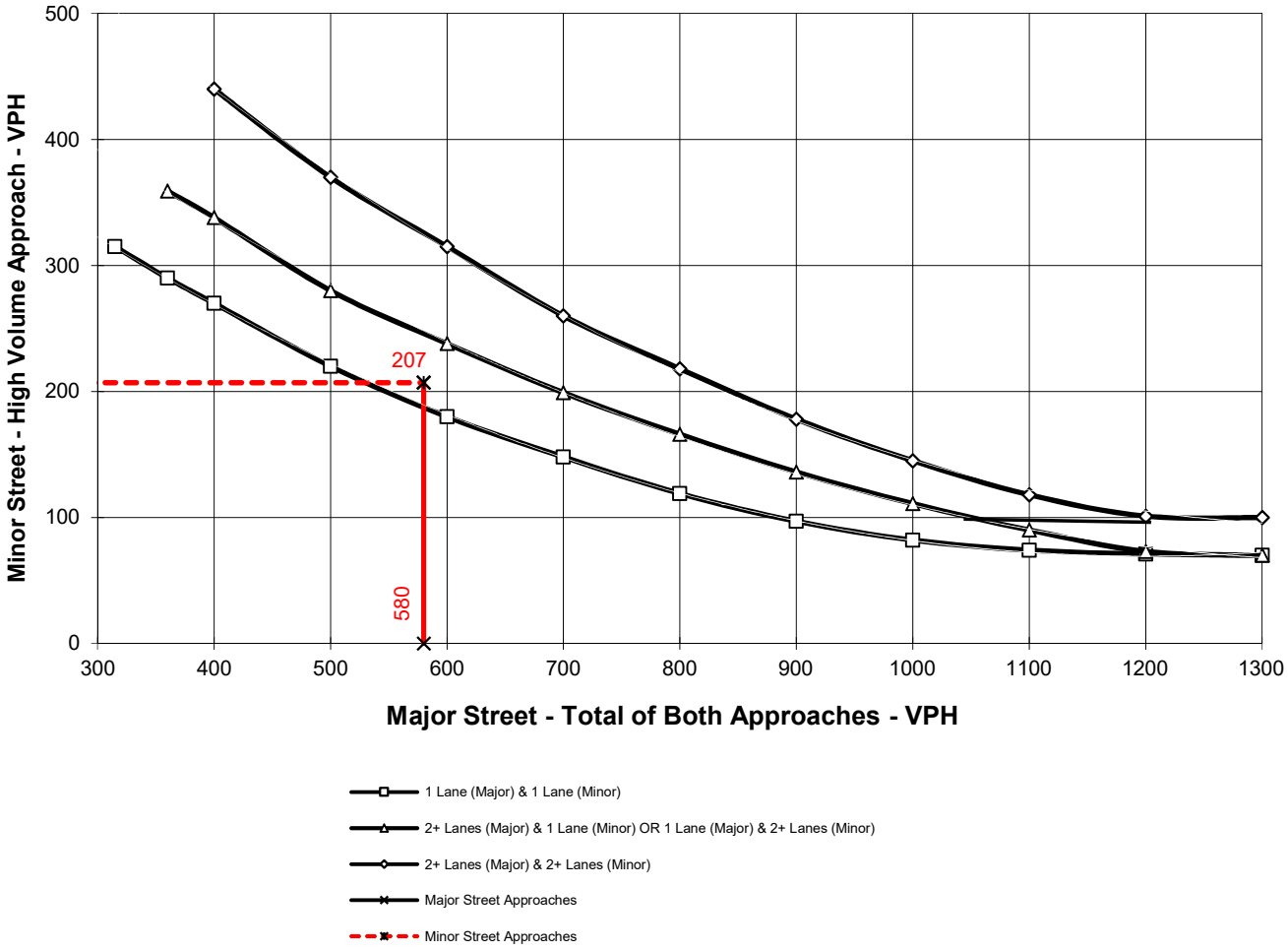
Number of Approach Lanes Major Street = 1

Minor Street Name = Pierson Blvd

High Volume Approach (VPH) = 207

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday PM

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 656

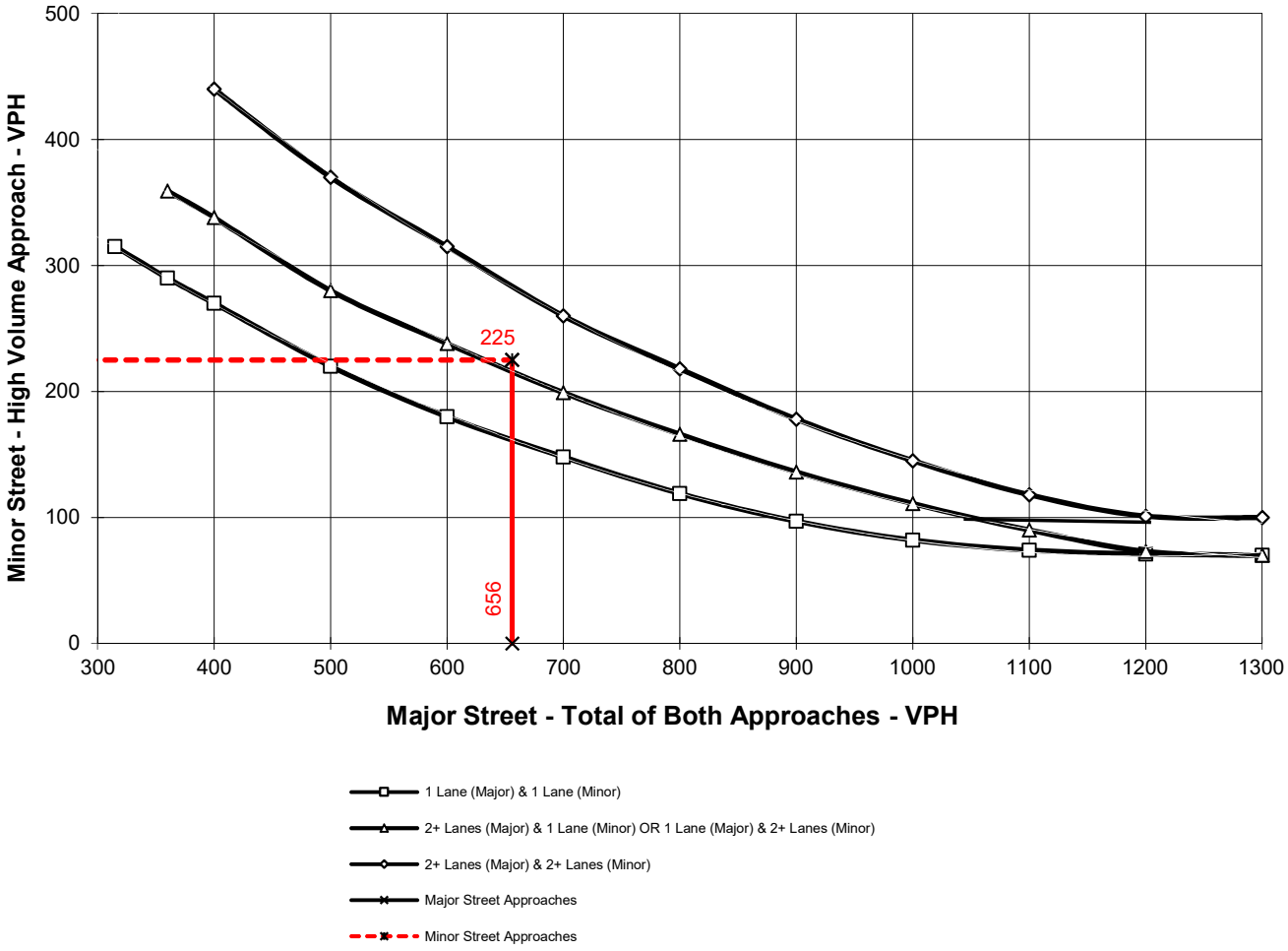
Number of Approach Lanes Major Street = 1

Minor Street Name = Pierson Blvd

High Volume Approach (VPH) = 225

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Saturday Mid-Day

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 424

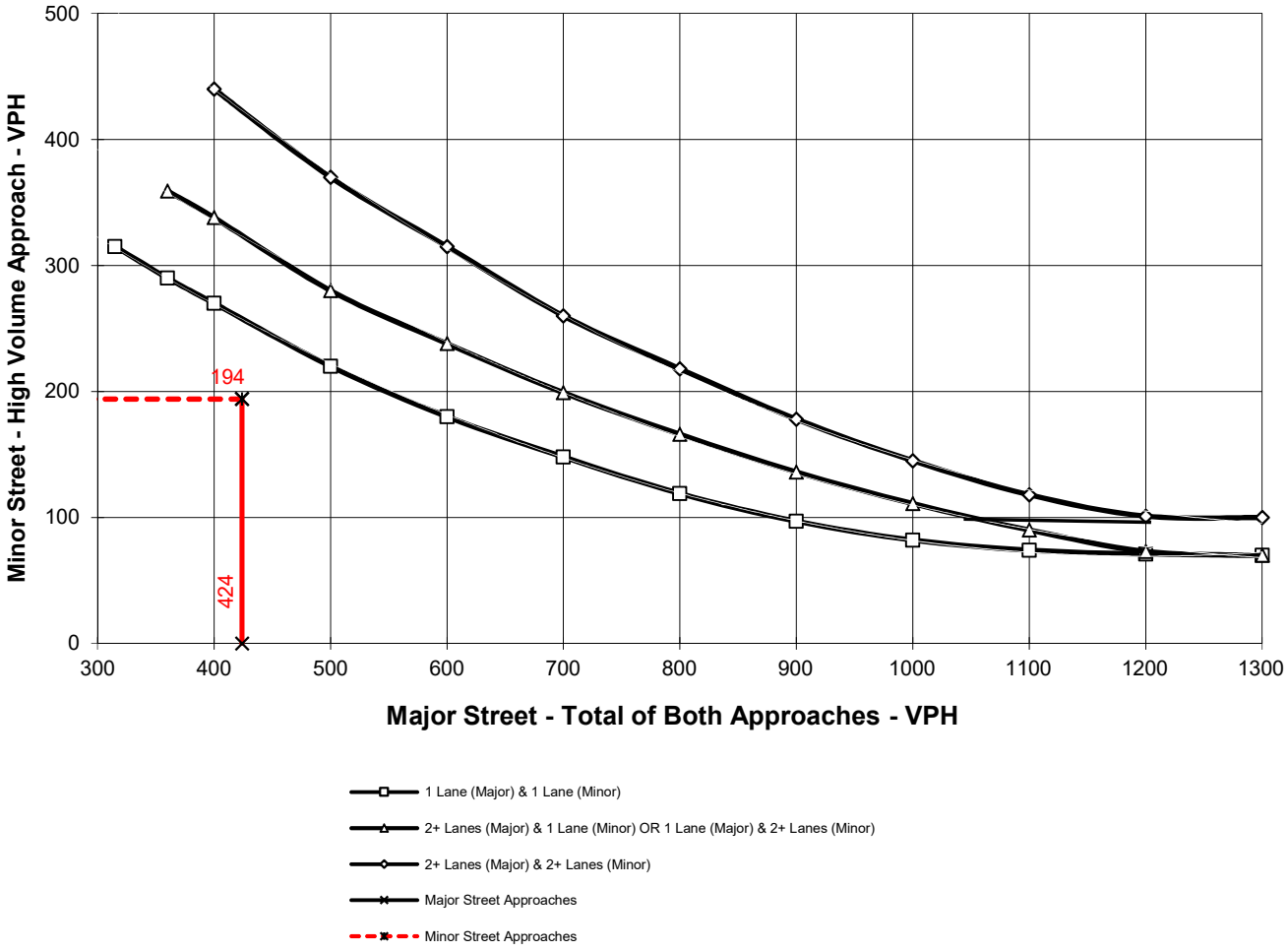
Number of Approach Lanes Major Street = 1

Minor Street Name = Pierson Blvd

High Volume Approach (VPH) = 194

Number of Approach Lanes Minor Street = 1

SIGNAL WARRANT NOT SATISFIED



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday AM

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 802

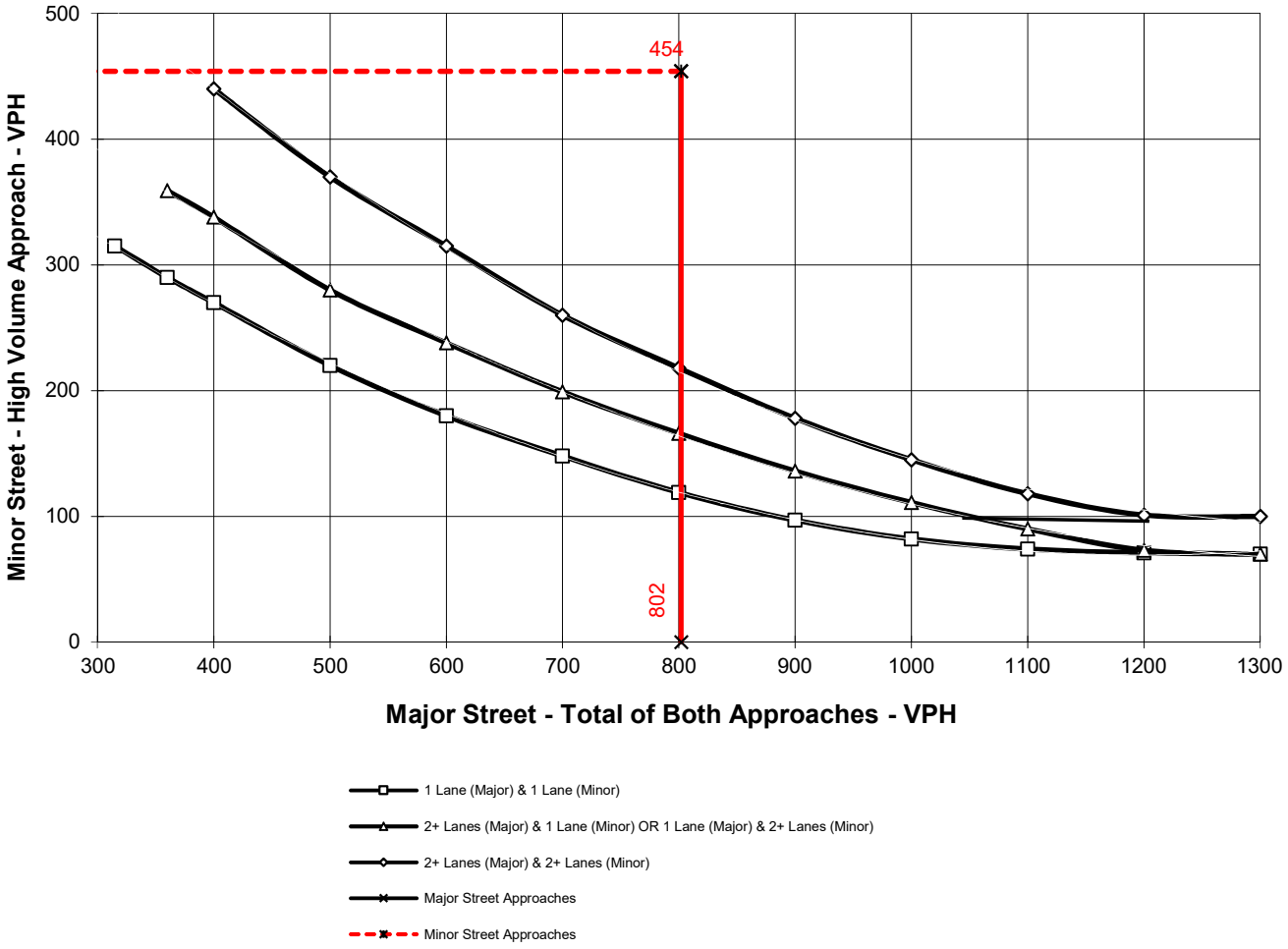
Number of Approach Lanes Major Street = 1

Minor Street Name = Dillon Rd

High Volume Approach (VPH) = 454

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday PM

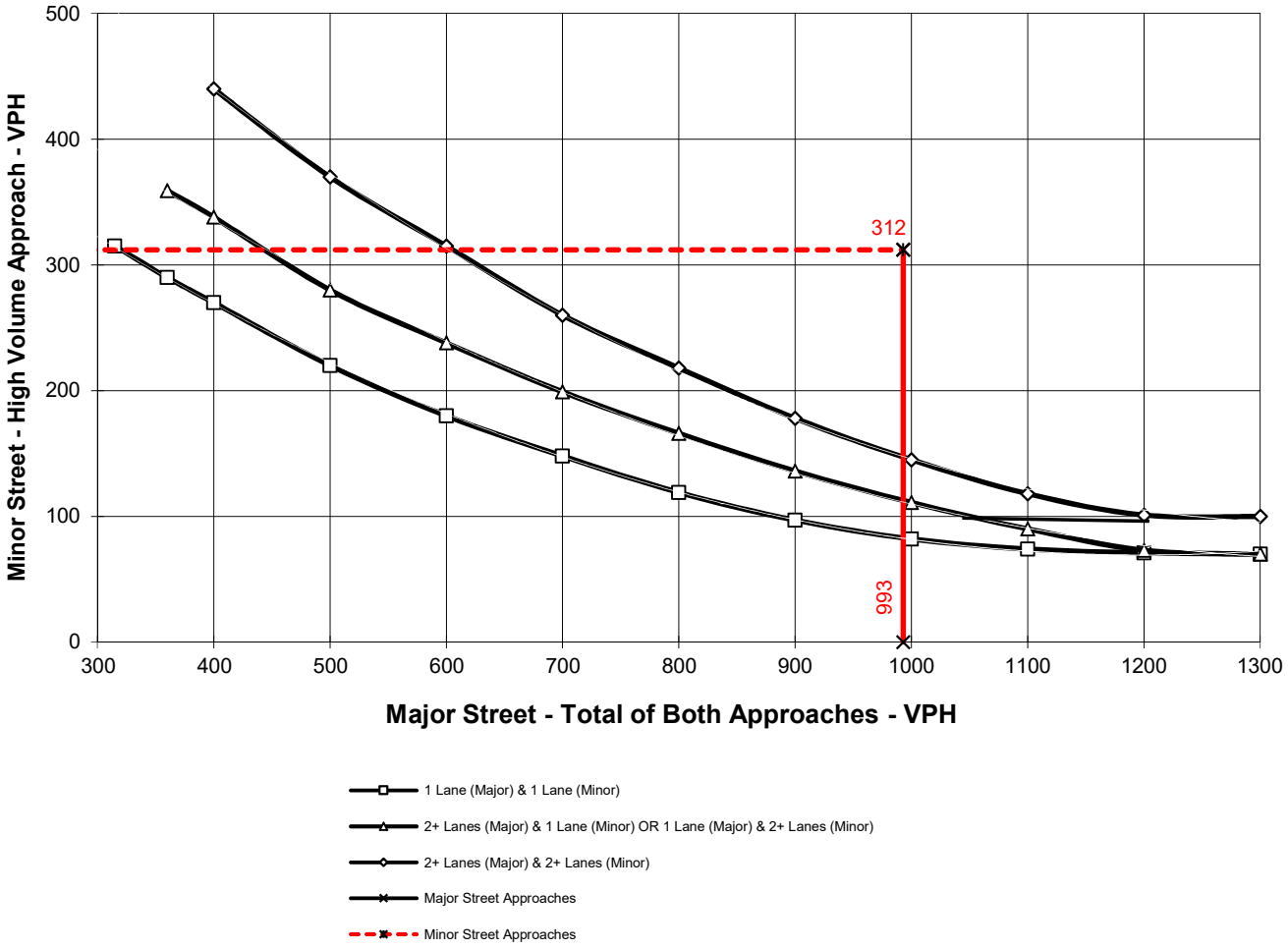
Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 993
Number of Approach Lanes Major Street = 1

Minor Street Name = Dillon Rd

High Volume Approach (VPH) = 312
Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Saturday Mid-Day

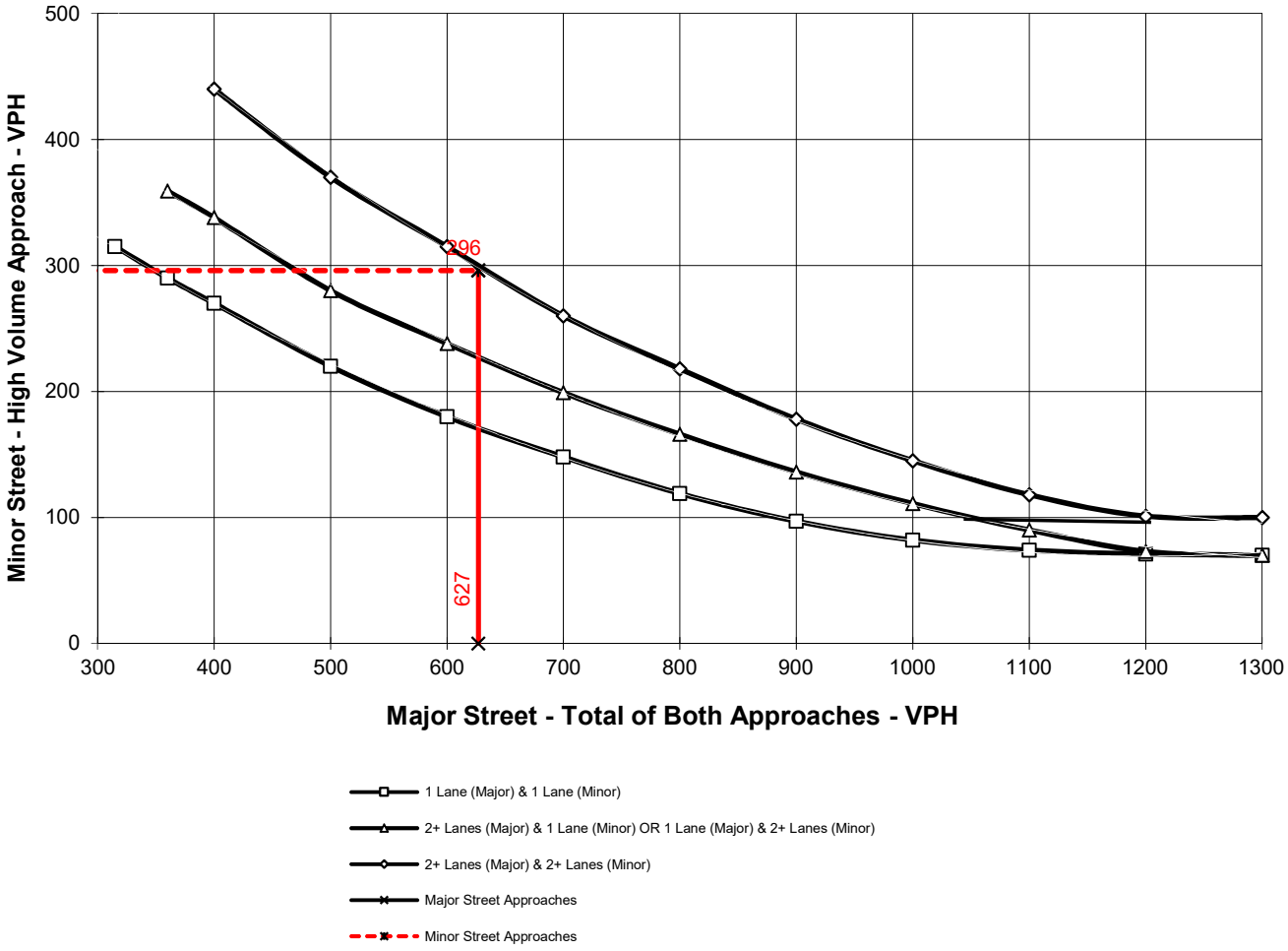
Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 627
Number of Approach Lanes Major Street = 1

Minor Street Name = Dillon Rd

High Volume Approach (VPH) = 296
Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday AM

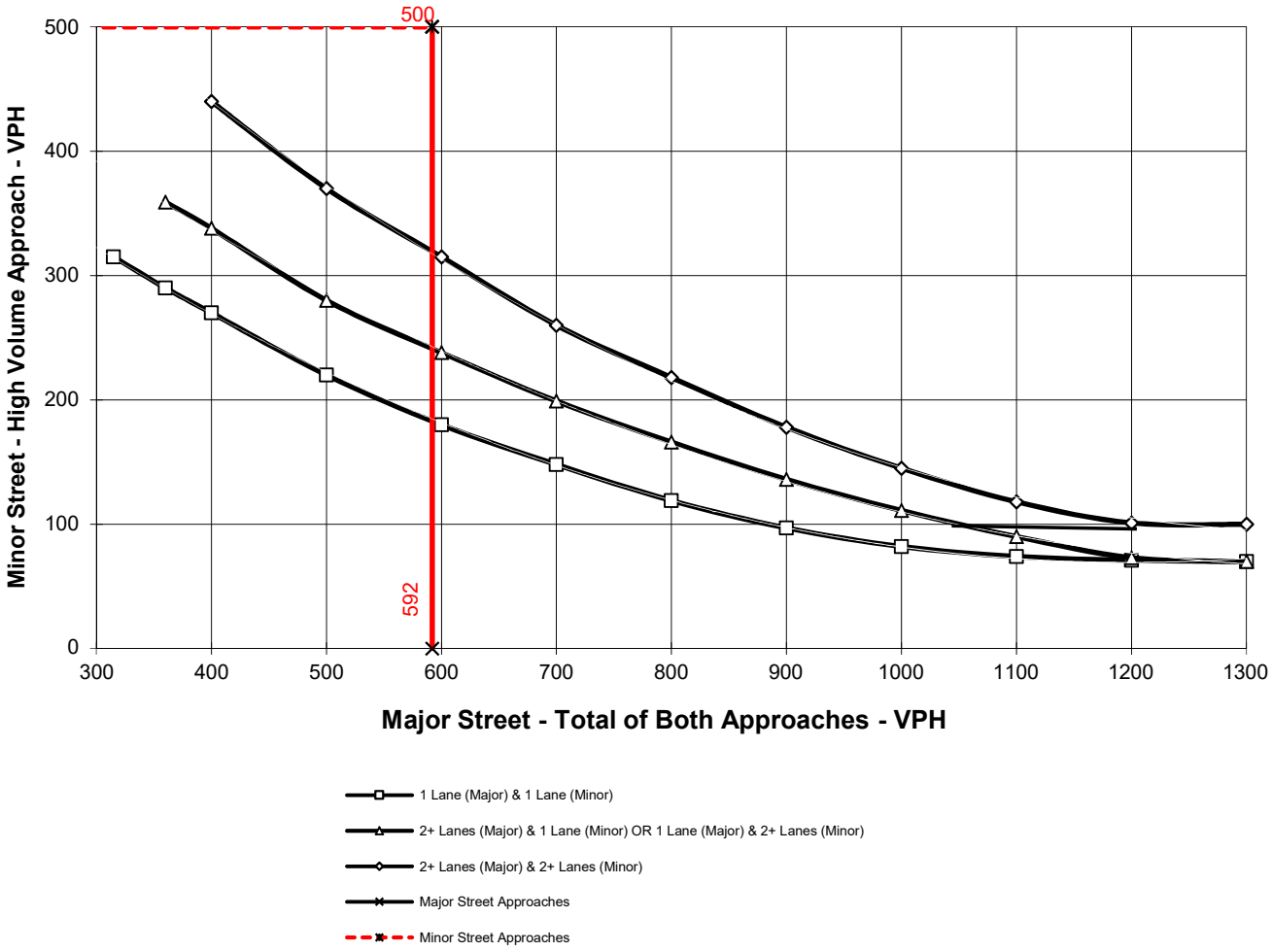
Major Street Name = Dillon Rd

Total of Both Approaches (VPH) = 592
Number of Approach Lanes Major Street = 1

Minor Street Name = Little Morongo Rd

High Volume Approach (VPH) = 545
Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Weekday PM

Major Street Name = Dillon Rd

Total of Both Approaches (VPH) = 816

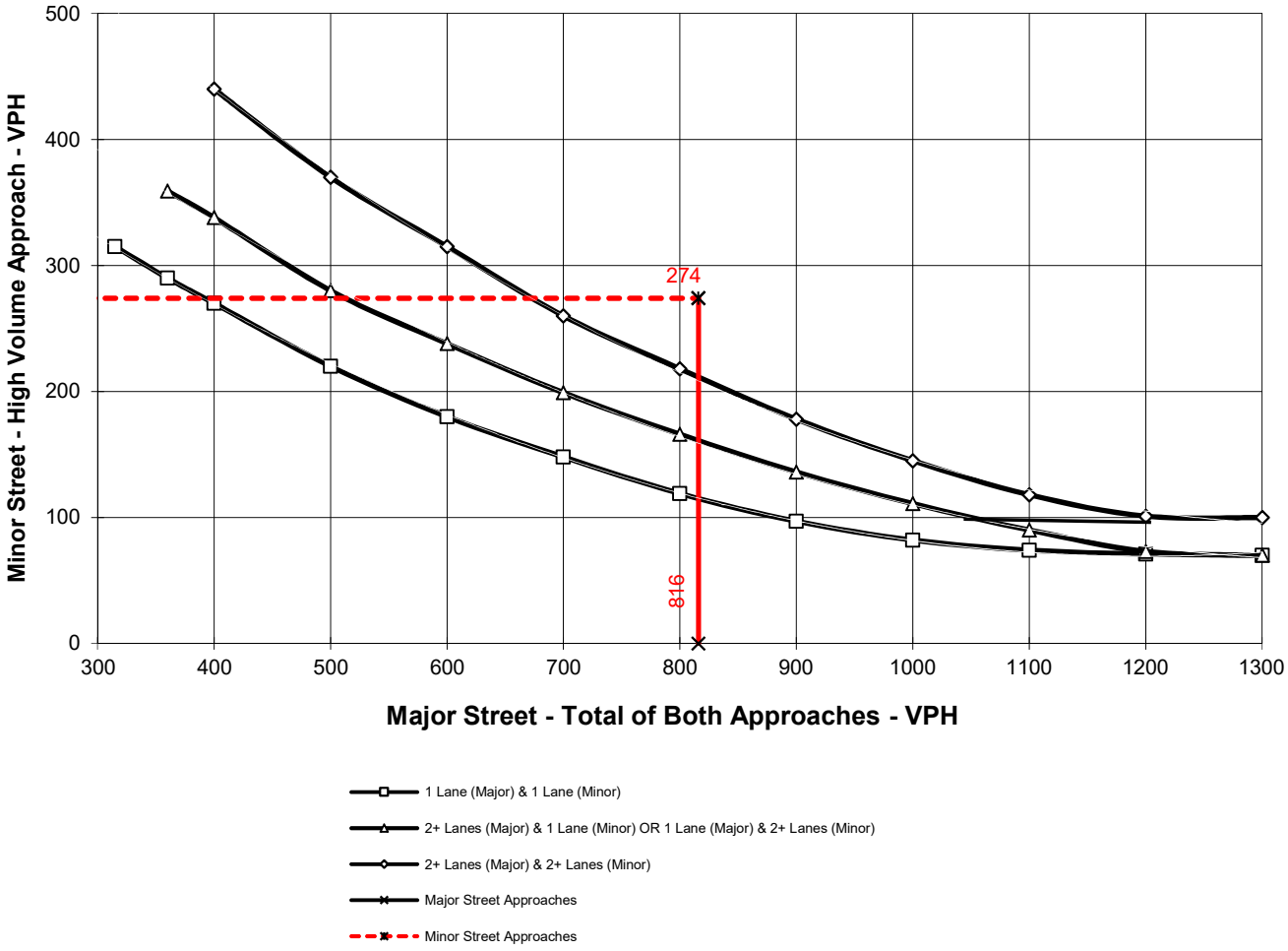
Number of Approach Lanes Major Street = 1

Minor Street Name = Little Morongo Rd

High Volume Approach (VPH) = 274

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Saturday Mid-Day

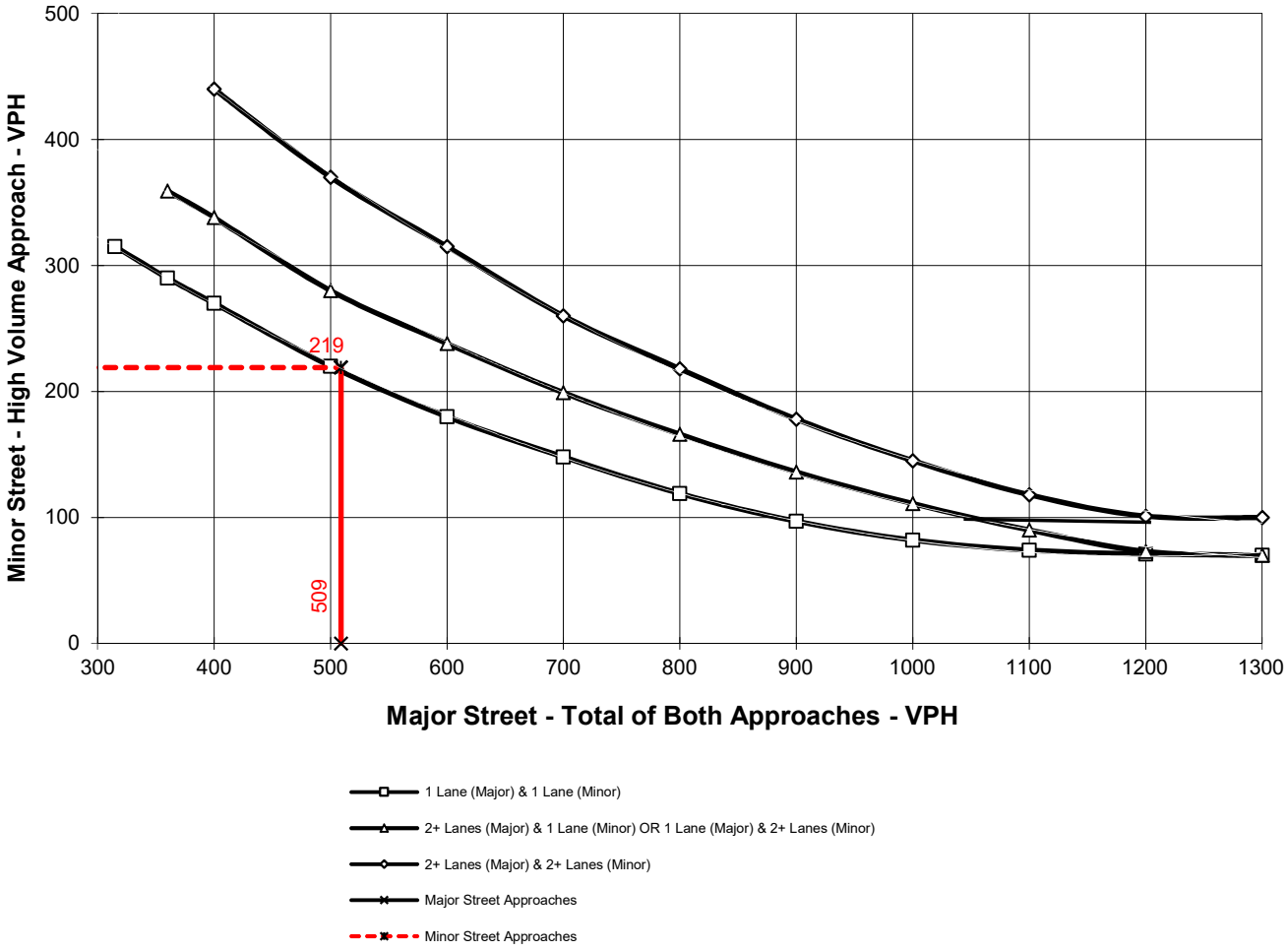
Major Street Name = Dillon Rd

Total of Both Approaches (VPH) = 509
Number of Approach Lanes Major Street = 1

Minor Street Name = Little Morongo Rd

High Volume Approach (VPH) = 219
Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing + Project Weekday AM

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 1484

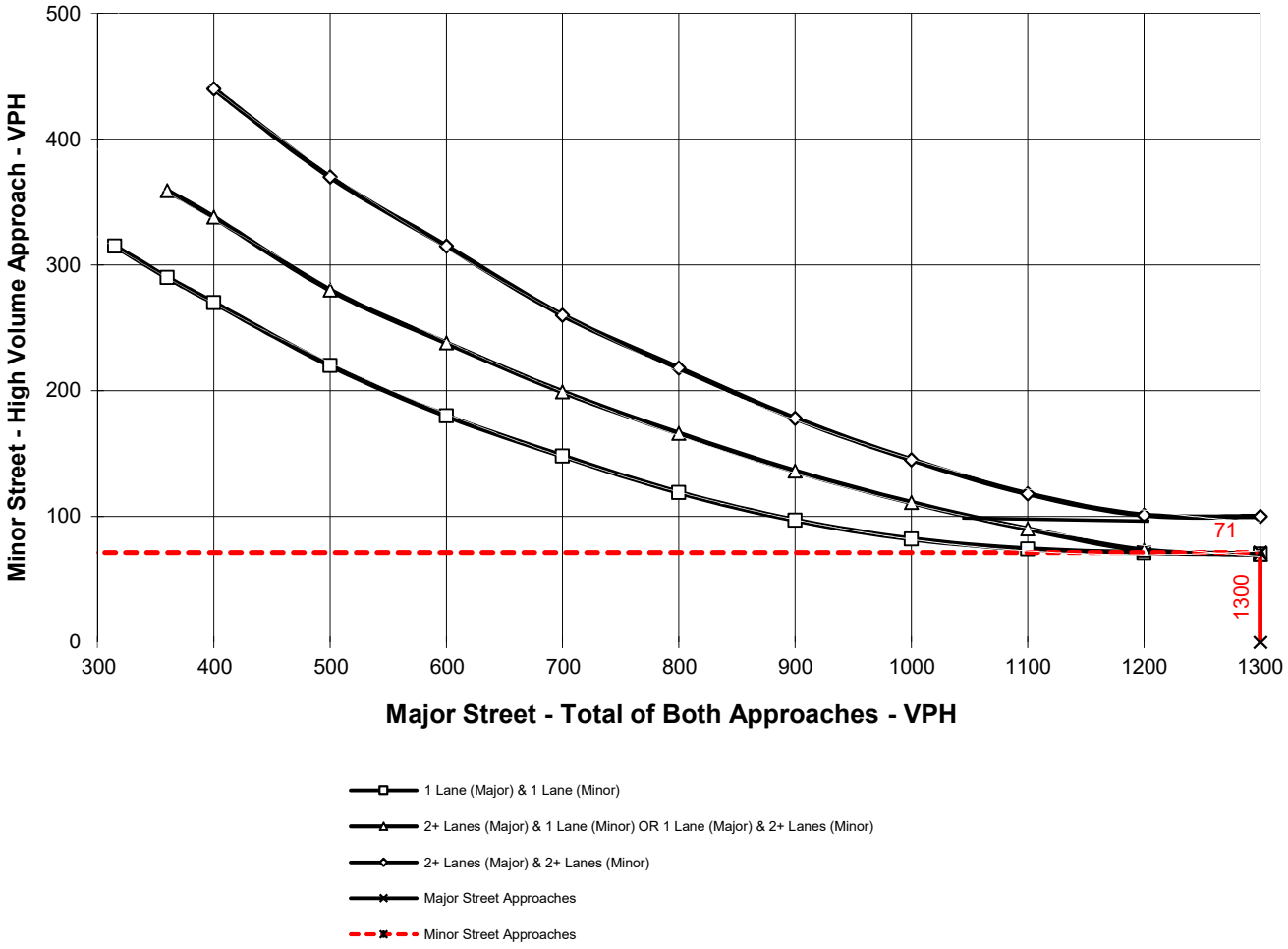
Number of Approach Lanes Major Street = 1

Minor Street Name = Project Dwy

High Volume Approach (VPH) = 71

Number of Approach Lanes Minor Street = 1

SIGNAL WARRANT NOT SATISFIED



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing + Project Weekday PM

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 1309

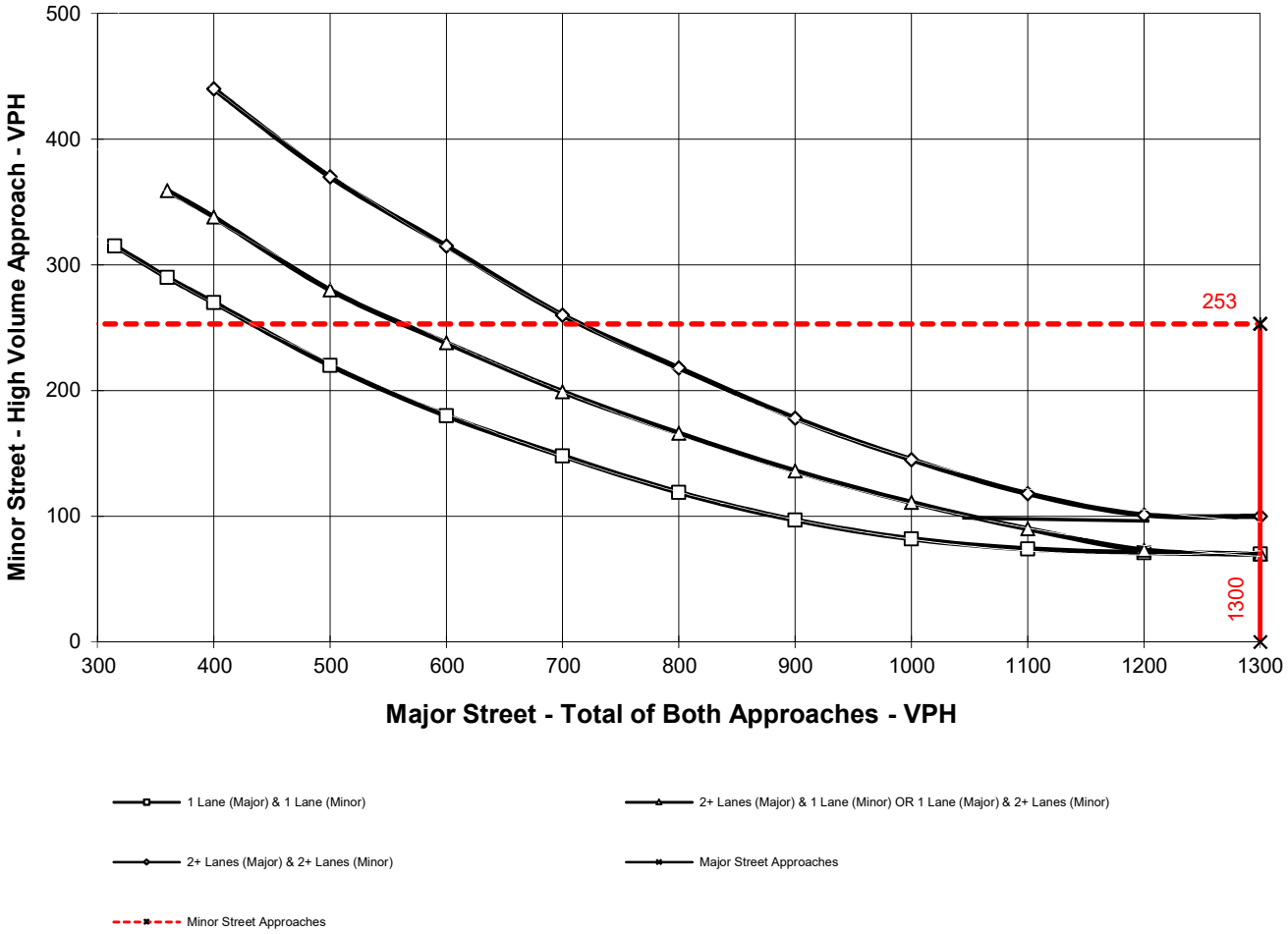
Number of Approach Lanes Major Street = 1

Minor Street Name = Project Dwy

High Volume Approach (VPH) = 253

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing + Project Saturday Mid-Day

Major Street Name = Indian Canyon Dr

Total of Both Approaches (VPH) = 922

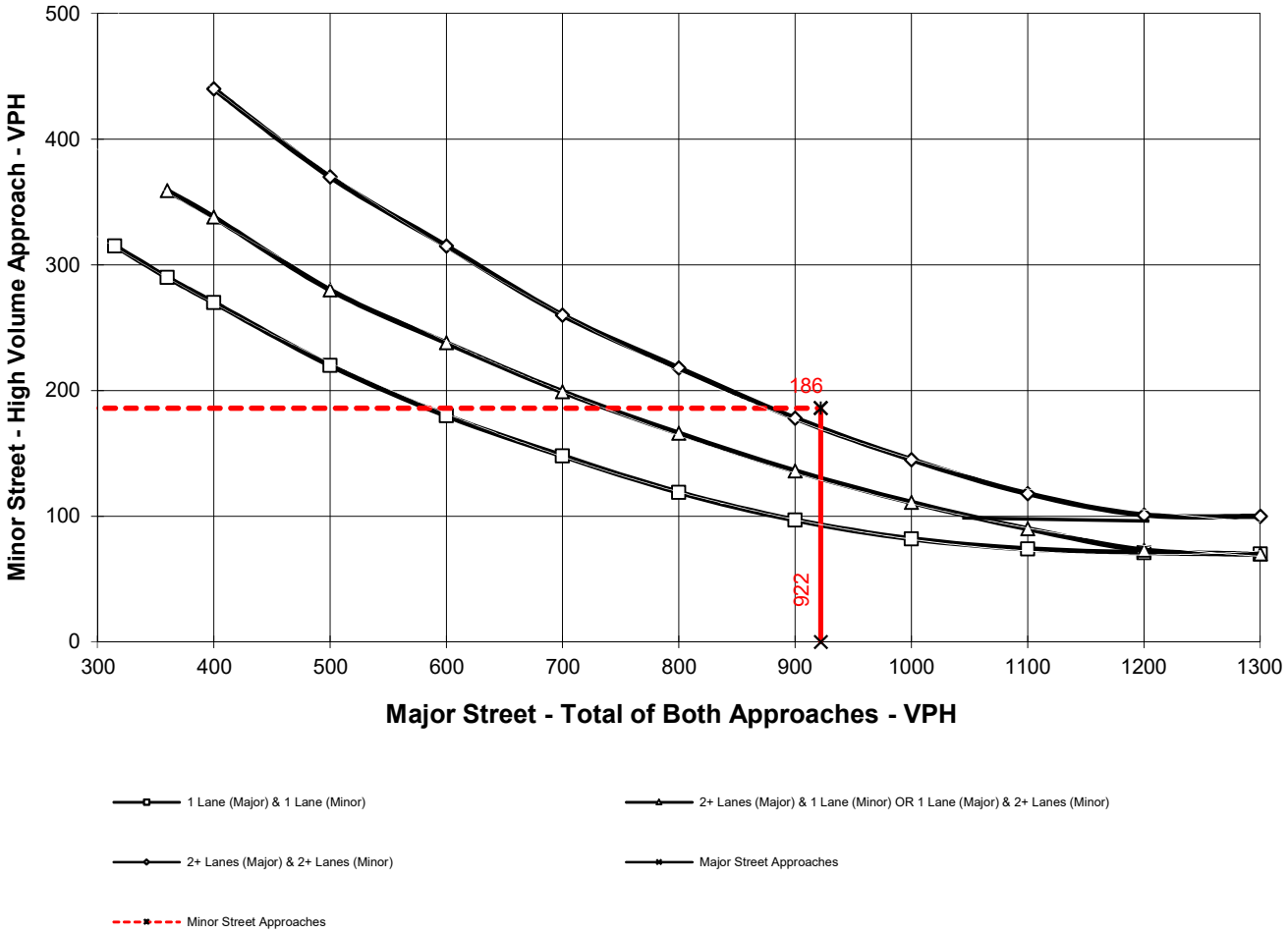
Number of Approach Lanes Major Street = 1

Minor Street Name = Project Dwy

High Volume Approach (VPH) = 186

Number of Approach Lanes Minor Street = 1

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.



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