



Lake View Apartments Traffic Impact Analysis City of Victorville, California

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February 11, 2020



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CONSULTANTS

February 11, 2020

Mr. Michael Asheghian
Village Lakes East, LLC.
12300 Wilshire Blvd #410
Los Angeles, CA 90025

Subject: Traffic Impact Analysis: Lake View Apartments City of Victorville

Dear Mr. Asheghian:

TJW ENGINEERING, INC. (TJW) is pleased to present you with this traffic impact analysis for the proposed Lake View Apartments located southwest of Ridgcrest Road and Chinquapin Drive in the City of Victorville.

This traffic study has been prepared to meet the traffic study requirements for the City of Victorville and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Victorville.

Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

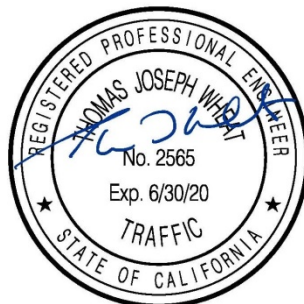
A handwritten signature in blue ink, appearing to read 'Th Wheat', written over a circular professional seal.

Thomas Wheat, PE, TE
President

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David Chew, PTP
Transportation Planner

Registered Civil Engineer #69467
Registered Traffic Engineer #2565



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Traffic Impact Analysis
City of Victorville, California**

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February 11, 2020
JN: LVA-19-001

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1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed Lake View Apartments located southwest of Ridgecrest Road and Chinquapin Drive in the City of Victorville. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Victorville via a scoping agreement (See **Appendix A**) and is pursuant to applicable City of Victorville, County of San Bernardino and Caltrans traffic impact analysis guidelines.

The proposed project consists of a 269-unit apartment complex. The site is currently zoned as Multi-Family Residential (R-3) in the City of Victorville General Plan Land Use. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

The proposed project is anticipated to be built and generating trips in 2021. A growth rate of 2% was used to account for Opening Year volumes while a growth rate of 2.5% was used for Future Year volumes. The Future Year growth rate was developed using the San Bernardino Transportation Analysis Model (SBTAM).

The proposed project is projected to generate 178 total AM peak hour trips, 87 total PM peak hour trips and 1,641 total daily trips.

The following four (4) intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Ridgecrest Rd / Bear Valley Rd
2. Ridgecrest Rd / Green Tree Blvd (Future Intersection)
3. Ridgecrest Rd / Project Driveway (North)
4. Ridgecrest Rd / Project Driveway (South)

The study intersections were analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing plus Project (EP);
- Opening Year Conditions (OYNP);
- Opening Year plus Project (OYWP);
- Future Year Conditions (Future Year NP); and
- Future Year plus Project (Future Year WP).

1.1 SUMMARY OF ANALYSIS RESULTS

Table ES-1 summarizes the results of the intersection level of service analysis based on the City of Victorville thresholds of significance for analyzing transportation impacts.

Table ES-1: Summary of Significant Impacts at Study Intersections

Intersection	EP	Opening WP	Future WP
#1 – Ridgecrest Rd/Bear Valley Rd	Direct	Cumulative	Cumulative
#2 – Ridgecrest Rd/Green Tree Blvd	No Impact	No Impact	No Impact
#3 – Ridgecrest Rd/Project Driveway (N)	--	--	--
#4 – Ridgecrest Rd/Project Driveway (S)	--	--	--

According to case law such as *Los Angeles Unified Sch. Dist. V City of Los Angeles* (1997) 58 Cal. App. 4th 1019 and *Communities for A Better Env't V California Resource Agency* (2002) 103 Cal. App. 4th 98, a project that results in an increase to an impact that already exceeds the established thresholds contributes to a cumulative impact as opposed to a direct impact. Therefore, as shown in **Table ES-1** all impacts at study intersections in the Opening and Future Year scenarios are projected to be cumulative impacts.

The proposed project will participate in the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The project’s contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project’s fair share towards mitigation measure(s) designed to alleviate cumulative project impacts.

Existing Conditions

The study intersections are currently not operating at an acceptable LOS during the AM and PM peak hours for *existing* conditions.

Existing Plus Project (EP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *EP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS E and LOS F in the AM and PM Peak Hour).

Opening Year (OYNP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *OYNP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

Opening Year Plus Project (OYWP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *OYWP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

Future Year (Future NP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Future NP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

Future Year Plus Project (Future WP) Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Future WP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Wherever necessary, roadways adjacent to the proposed project site and site access points will be constructed in compliance with recommended roadway classifications and respective cross-sections in the City of Victorville General Plan or as directed by the City Engineer.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City sight distance standards at the time of final grading, landscaping and street improvement plans.

Signing/stripping should be implemented in conjunction with detailed construction plans for the project site.

1.3 SUMMARY OF IMPACTS AND RECOMMENDED IMPROVEMENTS

The following improvements are recommended at the impacted study intersections for corresponding conditions to reduce peak hour delay and improve intersection LOS:

EP Recommended Improvement (EP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

OYWP Recommended Improvement (OYWP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Rd.

Future WP Recommended Improvement (FWP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Rd.

1.4 SUMMARY OF LOCAL AND REGIONAL FUNDING MECHANISMS

The proposed project will contribute to the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The project's contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project impacts. **Table ES-2** calculates the proposed project's fair share percentage at impacted intersections.

Table ES-2: Fair Share Calculations

Intersection	Baseline AM & PM Peak Hour Volume (A)	Opening Year AM & PM Peak Hour			Future Year AM & PM Peak Hour		
		Total Volume (B)	Project Volume (C)	Fair Share (C) / (B-A)	Total Volume (B)	Project Volume (C)	Fair Share (C) / (B-A)
#1 – Ridgecrest Rd / Bear Valley Rd	11,466	11,996	69	13.02%	15,115	69	1.89%

2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed Lake View Apartments located southwest of Ridgecrest Road and Chinguapin Drive in the City of Victorville. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Victorville via a scoping agreement (See **Appendix A**) and is pursuant to applicable City of Victorville, County of San Bernardino and Caltrans traffic impact analysis guidelines.

2.1 PROJECT DESCRIPTION

The proposed project consists of a 269-unit apartment complex. The site is currently zoned as Multi-Family Residential (R-3) in the City of Victorville General Plan Land Use. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

Site access is planned via one full-access driveway and one exit-only on Ridgecrest Road.

The proposed project is anticipated to be built and generating trips in 2021. A growth rate of 2% was used to account for opening year traffic volumes.

Figure 1 shows the project site location. **Exhibit 1** shows the proposed project site plan.

Figure 1 – Project Location





Exhibit 1: Proposed Project Site Plan

LVA-19-001: Lake View Apartments Traffic Impact Analysis



2.2 STUDY AREA

The following four (4) intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Ridgecrest Rd / Bear Valley Rd
2. Ridgecrest Rd / Green Tree Blvd
3. Ridgecrest Rd / Project Access Driveway (North)
4. Ridgecrest Rd / Project Access Driveway (South)

The study intersections are all located within the City of Victorville.

This traffic analysis follows the City of Victorville standards for traffic analysis, which have adopted the guidelines contained in the *County of San Bernardino Transportation Department Traffic Impact Analysis Preparation Guide (April, 2008)*.

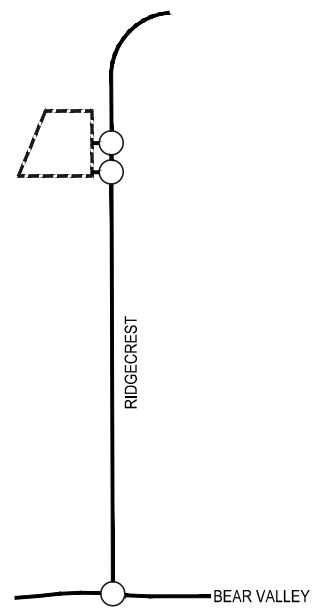
Exhibit 2 shows the location of the study intersections and roadway segments which are analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing plus Project (EP);
- Opening Year Conditions (OYNP);
- Opening Year plus Project (OYWP);
- Future Year Conditions (Future NP); and
- Future Year plus Project (Future WP).

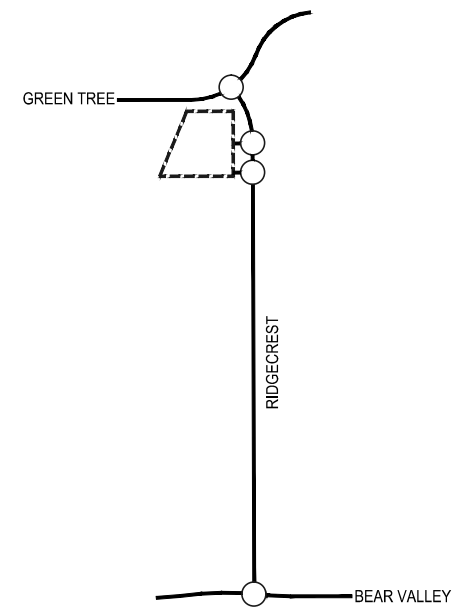
Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring within 7:00 AM to 9:00 AM; and
- Weekday PM Peak Hour occurring within 4:00 PM to 6:00 PM.

EXISTING STUDY AREA



OPENING YEAR STUDY AREA



Legend:



-  Project Site
-  Study Intersection Location



Exhibit 2: Project Location and Proposed TIA Study Area

LVA-19-001 Lake View Apartments Traffic Impact Analysis



2.3 ANALYSIS METHODOLOGY

2.3.1 Intersection Analysis Methodology

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The *Highway Capacity Manual (HCM) 6* (Transportation Research Board, 2016) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control.

The City of Victorville traffic study guidelines require signalized intersection operations be analyzed utilizing the HCM 6th Edition methodology. Intersection LOS for signalized intersections is based on the intersections average control delay for all movements at the intersection during the peak hour. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Table 1 describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Table 1:
HCM – LOS & Delay Ranges – Signalized Intersections

Level Of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

Collected peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. It is a common practice in LOS analysis to conservatively use a peak 15-minute flow rate applied to the entire hour to derive flow rates in vehicles per hour that are used in the LOS analysis. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume. $PHF = \frac{\text{Hourly Volume}}{4 * \text{Peak 15-Minute Volume}}$. The use of a 15-minute PHF produces a more detailed and conservative analysis compared to analyzing vehicles per hour. Existing PHFs, obtained from the existing traffic counts have been used for all analysis scenarios in this study.

The City of Victorville traffic study guidelines also require unsignalized intersection operations be analyzed utilizing the HCM 6th Edition methodology. Intersection operation for unsignalized intersections is based on the weighted average control delay expressed in seconds per vehicle.

At a two-way or side-street stop-controlled intersection, LOS is calculated for each stop-controlled minor street movement, for the left-turn movement(s) from the major street, and for the intersection as a whole. For approaches consisting of a single lane, the delay is calculated as the average of all movements in that lane. For all-way stop-controlled intersection, LOS is computed for the intersection as a whole.

Table 2 describes the general characteristics of traffic flow and accompanying delay ranges at unsignalized intersections.

**Table 2:
HCM – LOS & Delay Ranges – Unsignalized Intersections**

Level Of Service	Description	Delay (in seconds)
A	Little or no delays.	0 – 10.00
B	Short traffic delays.	10.01 – 15.00
C	Average traffic delays.	15.01 – 25.00
D	Long traffic delays. Multiple vehicles in queue.	25.01 – 35.00
E	Very long delays. Demand approaching capacity of intersection	35.01 – 50.00
F	Very constrained flow with extreme delays and intersection capacity exceeded.	> 50.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

This analysis utilizes *PTV Vistro*, Version 7 analysis software for all signalized and unsignalized intersections. *Vistro* is a macroscopic traffic software program that is based on the signalized intersection capacity analysis specified in Chapter 16 of the HCM. The level of service and capacity analysis performed within *Vistro* takes the optimization and coordination of signalized intersections within a network into consideration.

2.3.2 Traffic Signal Warrant Analysis Methodology

Traffic signal warrants refer to a list of established criteria utilized by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an unsignalized location. This analysis uses the signal warrant criteria in the latest edition of the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition, for all unsignalized study intersections.

The CA MUTCD contains nine different signal warrants for existing conditions based on several different factors such as vehicular volumes, pedestrian volumes, accident frequency, location of schools and location of railroad tracks. This TIA utilizes the four-hour volume-based warrant (Warrant 2) as the appropriate traffic signal warrant analysis for all analysis.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal may be warranted. Satisfying a signal warrant does not require that a traffic signal be installed at a location, rather other traffic factors and conditions should be evaluated to determine if signalization is justified. Additionally, signal warrants do not necessarily correlate with level of service; an intersection may satisfy a warrant and still be operating at or better than LOS D, or be operating at a deficient LOS (E or F) and not meet signal warrants.

2.4 PERFORMANCE CRITERIA

2.4.1 City of Victorville

The City of Victorville has established level of service “D” or better as acceptable LOS for all intersections along the designated street and highway system in the City’s General Plan Circulation Element. The City of Victorville has established LOS C as acceptable LOS for roadway segments under the City’s jurisdiction per the City’s General Plan EIR.

2.5 THRESHOLDS OF SIGNIFICANCE

According to California Environmental Quality Act (CEQA) guidelines, a project is considered to cause a significant impact to a transportation system if it:

- Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel.
- Conflicts with an applicable congestion management program (CMP), including, but not limited to level of service standards, travel demand measures, or other standards established by the County Congestion Management Agency for roadways or highways.
- Conflicts with adopted policies or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decreases the performance or safety of such facilities.

2.5.1 City of Victorville

City of Victorville intersection deficiencies would occur under the following conditions:

- If the project contributes measurable traffic to an intersection or roadway segment operating at LOS D or better or a volume-to-capacity ratio of 0.95 or lower for without project conditions, and the addition of project trips causes intersection LOS to degrade to LOS E or worse, or volume-to-capacity ratio to increase it greater than 0.95.
- If a project contributes measurable traffic to an intersection or roadway segment operating at a deficient LOS (LOS E or F) for without project conditions.

3.0 EXISTING CONDITIONS

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The characteristics of the roadway system in the vicinity of the proposed project site are described in **Table 3**.

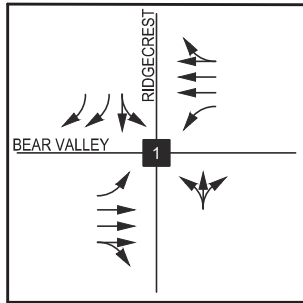
Table 3:
Roadway Characteristics Within Study Area

Roadway	Classification ¹	Jurisdiction	Direction	Existing Travel Lanes	Median Type ²	Speed Limit (mph)	On-Street Parking
Ridgecrest Rd	Arterial	Victorville	North-South	2-4	PM	55	No
Green Tree Blvd	Super Arterial	Victorville	East-West	4	TWLTL	50	No
Bear Valley Rd	Super Arterial	Victorville	East-West	6	PM	45	No

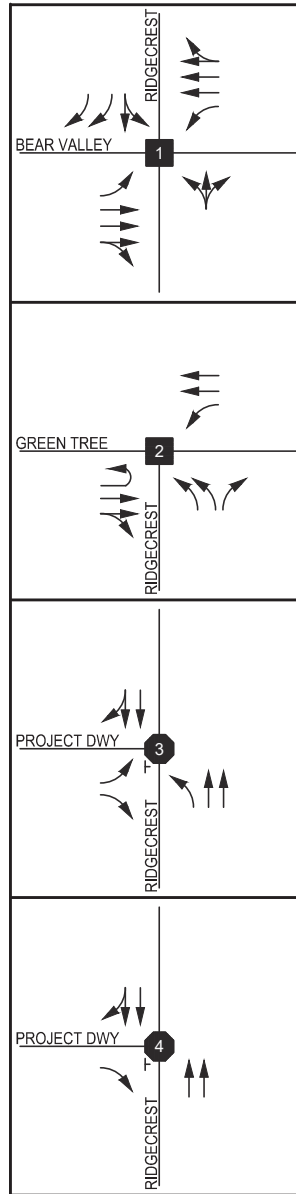
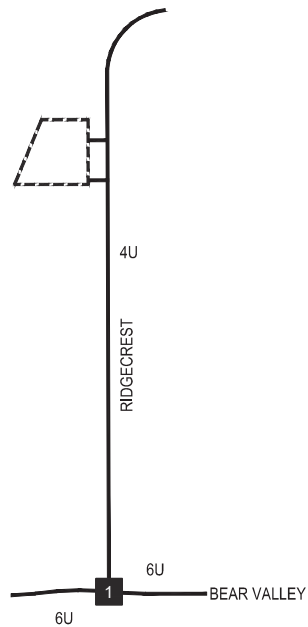
1: Sources: City of Victorville General Plan (September, 2008)

2: TWLTL = Two-Way Left-Turn Lane, PM = Painted Median, NM = No Median.

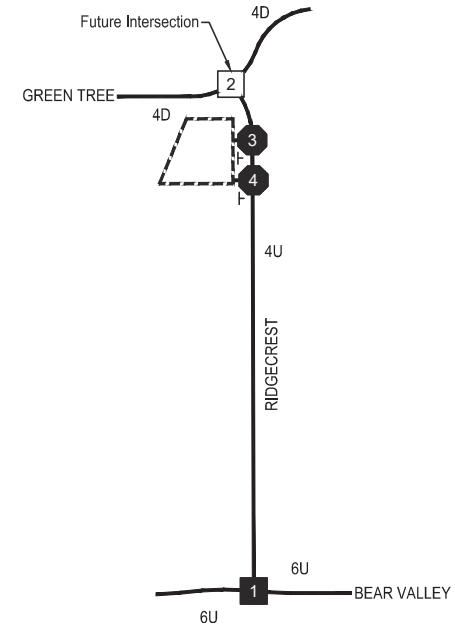
Exhibit 3 show existing conditions study area intersection and roadway geometry.



EXISTING STUDY AREA



OPENING AND FUTURE YEAR STUDY AREA



Legend:

- Project Site
- Existing Lane
- Defacto Lane
- Signal-Controlled Intersection
- Stop-Controlled Intersection
- Cross Street Stop Control
- 4U 4-Lane Undivided Roadway
- 4D 4-Lane Divided Roadway
- 6U 6-Lane Undivided Roadway



Exhibit 3: Lane Geometry and Intersection Controls

LVA-19-001 Lake View Apartments Traffic Impact Analysis



3.2 CITY OF VICTORVILLE GENERAL PLAN CIRCULATION ELEMENT

The proposed project site is located within the City of Victorville. **Appendix A** contains the current City of Victorville General Plan Circulation Element future transportation network and roadway cross sections.

3.3 EXISTING BICYCLE AND PEDESTRIAN FACILITIES

There are no existing bicycle facilities in the study area. According to the *City of Victorville Non-Motorized Plan*, bicycle facilities are planned on the following roadways within the study area:

Class II On-Street Bicycle Lanes

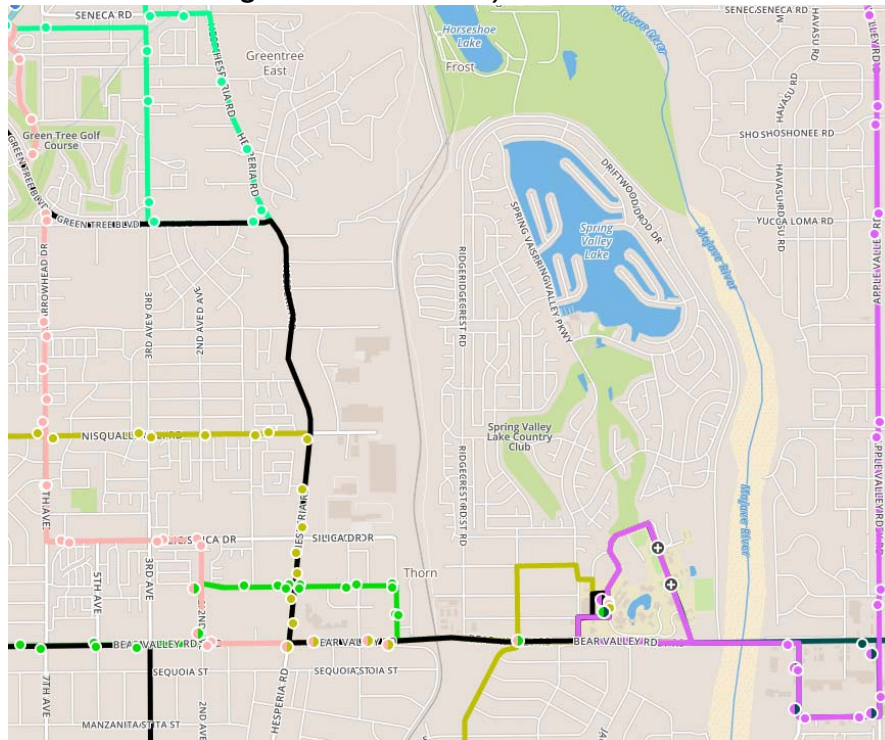
- Green Tree Boulevard / Yates Road from 7th St to Hesperia Road

Appendix A contains the City of Victorville Non-Motorized Plan transportation map.

3.4 EXISTING PUBLIC TRANSIT SERVICES

The City of Victorville is served by the Victor Valley Transit Authority (VVTA) which provides bus service throughout the Victor Valley region. **Figure 2** shows the VVTA routes in the vicinity of the project site.

Figure 2 – Victor Valley Transit Routes



Sources: Victor Valley Transit

3.5 EXISTING TRAFFIC VOLUMES

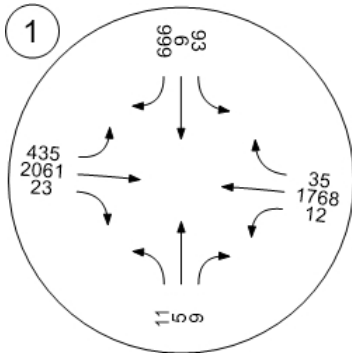
To determine the existing operation of the study intersections, AM and PM peak period traffic counts at the study intersections were collected on Tuesday October 29, 2019 and Tuesday January 28, 2020. Detailed traffic count data is provided in **Appendix B**.

Exhibit 4 shows existing AM and PM peak hour volumes at the study intersections.

Traffic Volume - Base Volume



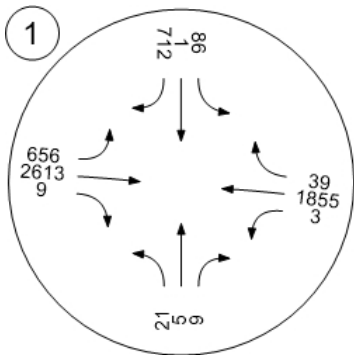
Ridgecrest/Bear Valley



Traffic Volume - Base Volume



Ridgecrest/Bear Valley



3.6 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Existing conditions AM and PM peak hour intersection analysis is shown in **Table 4**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

Table 4:
Intersection Analysis – Existing Conditions

Intersection	Control Type	Peak Hour	Existing Conditions	
			Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	73.8	E
		PM	142.0	F
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	--	--
		PM	--	--
#3 – Ridgecrest Rd/Project Driveway (N)	OWSC	AM	--	--
		PM	--	--
#4 – Ridgecrest Rd/Project Driveway (S)	OWSC	AM	--	--
		PM	--	--

Note: TWSC = Two-Way Stop-Control, OWSC = One-Way Stop-Control; Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized.

As shown in **Table 4**, the study intersections are currently not operating at an acceptable LOS during the AM and PM peak hours for *existing* conditions.

4.0 PROPOSED PROJECT

4.1 PROJECT DESCRIPTION

The proposed project consists of a 269-unit apartment complex. The site is currently zoned as Multi-Family Residential (R-3) in the City of Victorville General Plan Land Use. The project site is currently vacant. The proposed project land use is permitted in the zone and does not require a zone change or General Plan amendment.

Site access is planned via one full-access driveway and one exit-only on Ridgecrest Road.

Exhibit 1 previously showed the proposed project site plan.

4.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017)* trip generation rates were used to determine trip generation of for most of the proposed project land uses.

Table 5 summarizes the projected AM peak hour, PM peak hour and daily trip generation of the proposed project.

Table 5:
Proposed Project AM/PM Peak Hour Trip Generation

Proposed Land Use	Qty	Unit	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour				
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
							In	Out	Total			In	Out	Total
Multi-Family Housing (Low-Rise) (220)	269	DU	7.32	1,969	0.46	23:77	29	95	124	0.56	63:37	95	56	151
Total				1,969			29	95	124			95	56	151

Note: Rates from ITE Trip Generation (10th Edition, 2017); DU – Dwelling Unit

As shown in **Table 5**, the proposed project is projected to generate 124 AM peak hour trips, 151 PM peak hour trips and 1,969 daily trips.

4.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project’s traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site.

Exhibit 5 shows the projected trip distribution of proposed project trips.

4.4 MODAL SPLIT

The traffic reducing potential of public transit, walking and bicycling have not been considered in this analysis since transit facilities in the study area are limited.

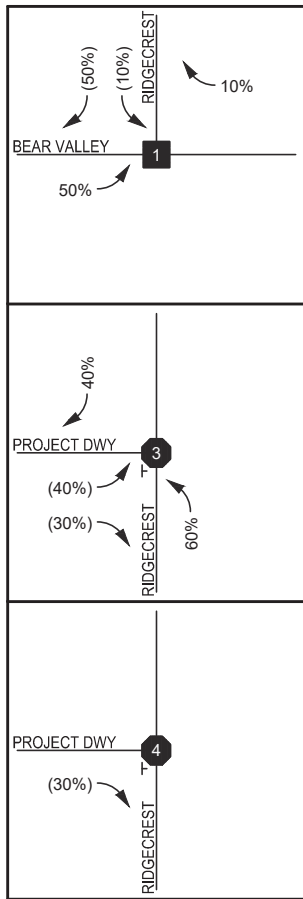
4.5 PROJECT TRIP ASSIGNMENT

Exhibit 6 shows the corresponding projected AM/PM peak hour trip assignment of proposed project trips.

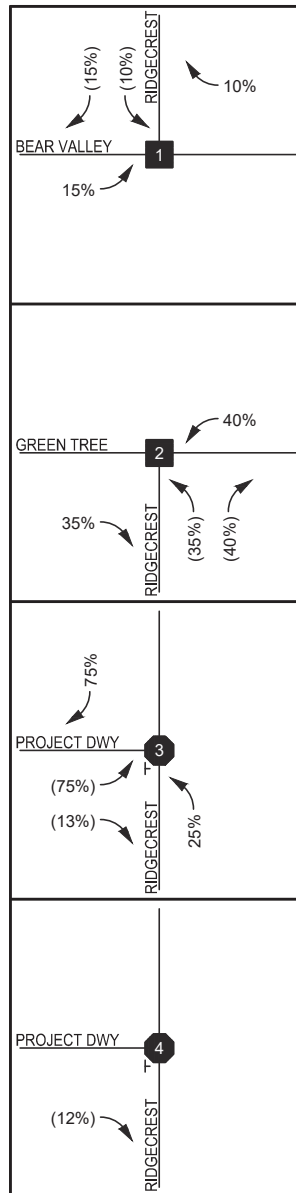
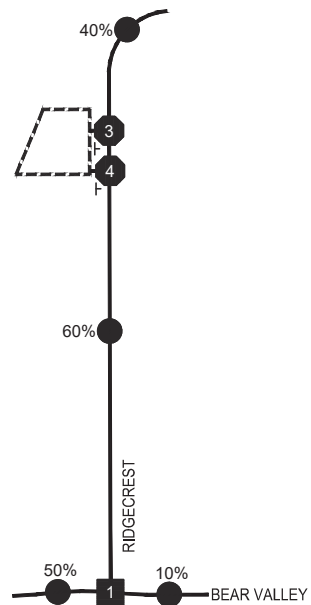
4.6 CUMULATIVE PROJECTS TRAFFIC

Opening Year traffic volumes were developed using an annual growth rate in addition to any approved projects within the surrounding area of the project site. Coordination with the City was conducted, and it was determined no projects are approved within the area. As such, cumulative projects were not included for the Opening Year scenario.

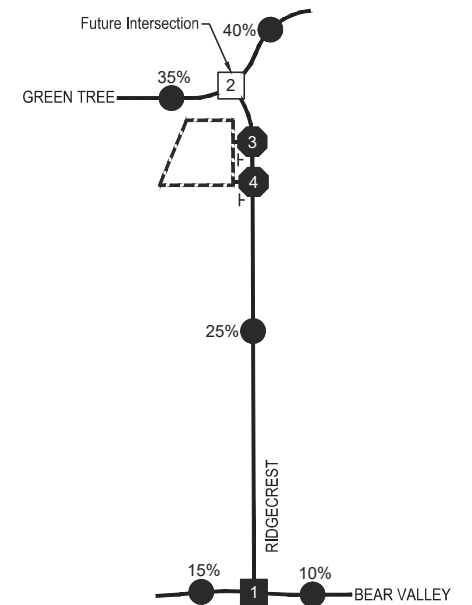
Future Year traffic volumes were developed based on the San Bernardino County Transportation Analysis Model (SBTAM). The SBTAM includes approved projects when developing future forecasts. As such, it is assumed a growth rate derived from the SBTAM accounts for cumulative projects within the surrounding area of the project site.



EXISTING STUDY AREA



OPENING AND FUTURE YEAR STUDY AREA



Legend:

XX%

(XX%)

Inbound Percent Trip Distribution

Outbound Percent Trip Distribution

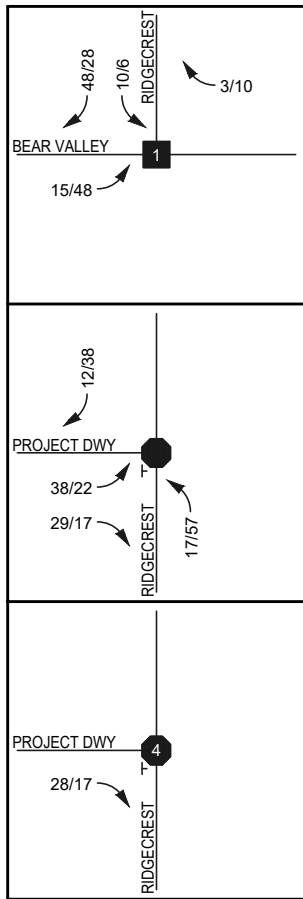
Project Site



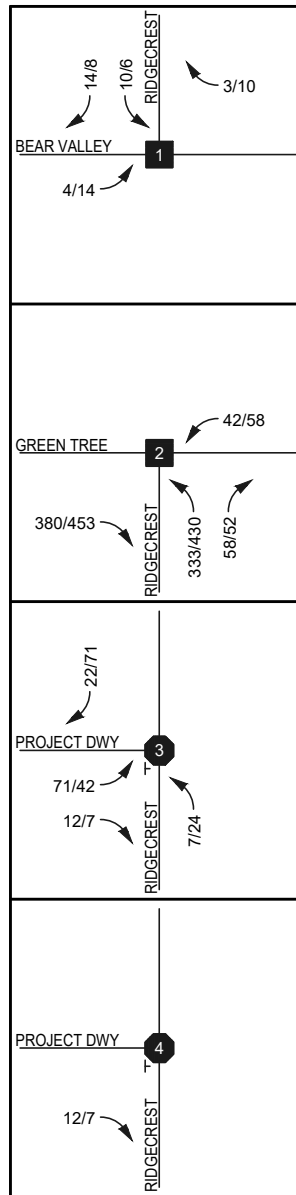
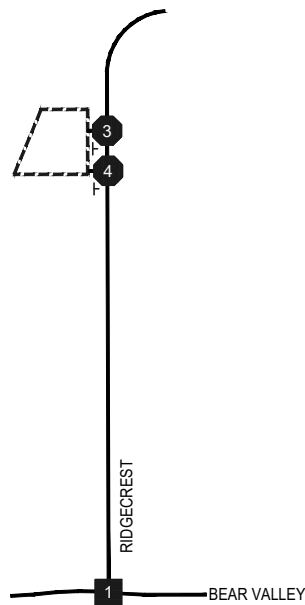
Exhibit 5: Trip Distribution at Study Intersections

LVA-19-001: Lake View Apartments Traffic Impact Analysis

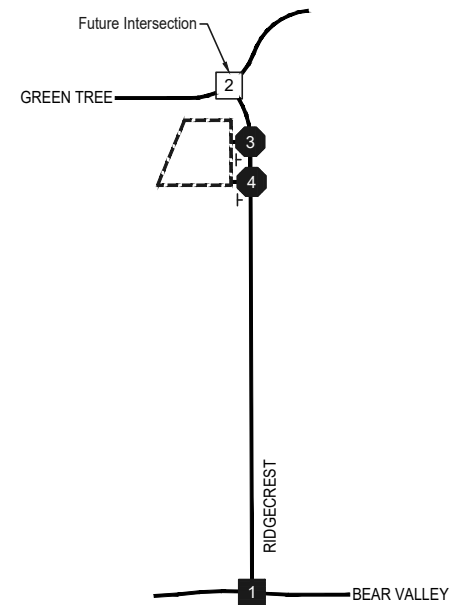




EXISTING STUDY AREA



OPENING AND FUTURE YEAR STUDY AREA



Legend:

XX%

(XX%)

Inbound Percent Trip Distribution

Outbound Percent Trip Distribution

Project Site



Exhibit 6: Project Trip Assignment of Proposed Project Trips

LVA-19-001: Lake View Apartments Traffic Impact Analysis

TJW ENGINEERING, INC.



Not to Scale

5.0 EXISTING PLUS PROJECT CONDITIONS (EP)

Existing plus project (EP) conditions analysis is intended to identify the project-related impacts on the existing circulation system by comparing *EP* conditions to *existing* conditions. Consistent with CEQA, *EP* analysis is intended to identify direct impacts associated with the development of the proposed project.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *existing plus project* scenario are consistent with those previously shown in **Exhibit 3**, with the exception of project driveways and other facilities assumed to be constructed by the proposed project to provide site access.

5.2 EP TRAFFIC VOLUMES

EP volumes include existing traffic plus the addition of the traffic projected to be generated by the proposed project. As the project driveways do not currently exist, volumes for these intersections are based on 24-hour ADT roadway volumes along Ridgecrest Road north of Chinquapin Drive.

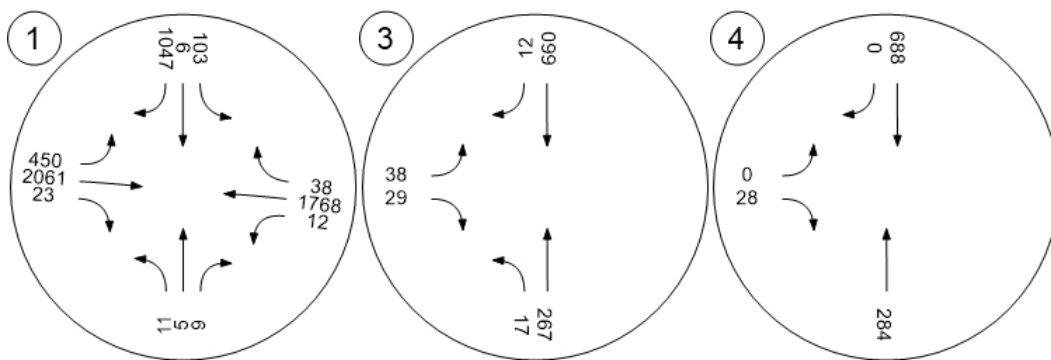
EP Volumes = Existing (2019) Counts + Project Traffic

Exhibit 7 shows *EP* AM and PM peak hour volumes at the study intersections.

5.3 EP INTERSECTION LEVEL OF SERVICE ANALYSIS

EP conditions AM and PM peak hour intersection analysis is shown in **Table 6**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

Traffic Volume - Base Volume



Traffic Volume - Base Volume

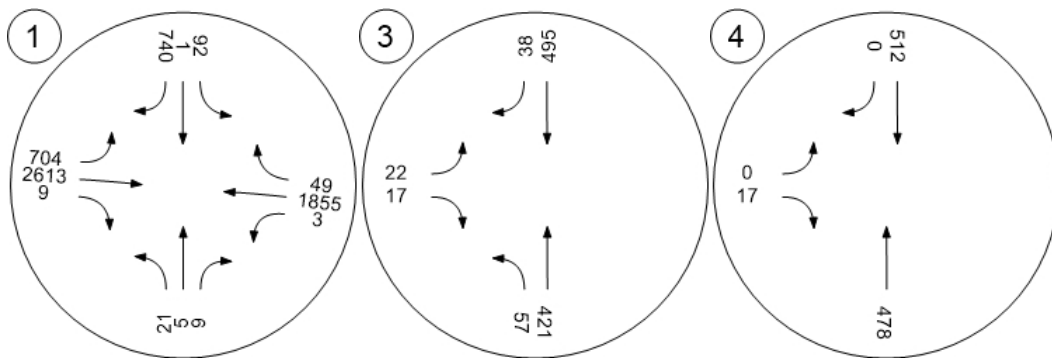


Table 6:
Intersection Analysis – EP Conditions

Intersection	Control Type	Peak Hour	Existing Conditions		EP Conditions			
			Delay ¹	LOS	Delay ¹	LOS	Change	Impact?
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	73.8	E	75.6	E	1.8	Yes
		PM	142.0	F	154.4	F	12.4	Yes
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	--	--	--	--	--	No
		PM	--	--	--	--	--	No
#3 – Ridgecrest Rd/Project Driveway (North)	OWSC	AM	--	--	17.5	C	--	No
		PM	--	--	16.6	C	--	No
#4 – Ridgecrest Rd/Project Driveway (South)	OWSC	AM	--	--	10.8	B	--	No
		PM	--	--	10.0	A	--	No

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 6**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *EP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS E in the AM Peak Hour and LOS F in the PM Peak Hour).

5.4 EP CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *EP* conditions have been prepared based on *EP* peak-hour and four-hour intersection volumes at the project site access locations.

Table 7 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 7:
Signal Warrant Analysis – EP Conditions

Intersection	Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
		AM Peak Hour	PM Peak Hour
#3 – Ridgecrest Rd/Project Driveway (North)	No	No	No
#4 – Ridgecrest Rd/Project Driveway (South)	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *EP* conditions.

5.5 EP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *EP* conditions.

EP Recommended Improvement (EP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Street.

Table 8 shows *EP* level of service at the intersection with the recommended improvements.

Table 8:
Intersection Analysis – EP Conditions with Recommended Improvements

Intersection	Control Type	Peak Hour	Existing Conditions		EP Conditions		EP With Recommended Improvements	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	73.8	E	75.6	E	36.1	D
		PM	142.0	F	154.4	F	78.4	E

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 8**, with the recommended improvements, the intersection is projected to operate at an acceptable/improved LOS for *EP* conditions.

6.0 PROJECT OPENING YEAR (2021) WITHOUT PROJECT CONDITIONS (OYNP)

Project opening year without project (OYNP) conditions analysis is intended to identify baseline conditions in the near-term without the proposed project.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *existing plus ambient plus project* scenario are consistent with those previously shown in **Exhibit 3**, with the following exceptions:

- Green Tree Boulevard will be extended from its existing terminus at Hesperia Road to Ridgecrest Road and provide access to Yates Road through to Apple Valley Road
- The Green Tree Boulevard and Ridgecrest Road will be a signalized T-intersection with Green Tree Boulevard and Yates Road being the east/west roadways and Ridgecrest Road being the north/south roadway.

6.2 OYNP TRAFFIC VOLUMES

OYNP volumes include background traffic. Since the proposed project is expected to be built and generating trips in 2021, *OYNP* volumes include a growth rate of 2% per year for two years, applied to existing volumes. It should be noted, the extension of the Green Tree Boulevard would provide residents of Spring Valley Lake a direct route to I-15 reducing the traffic volume along Ridgecrest Road and Bear Valley Road. To account for this redistribution of traffic, this analysis uses volumes based on data from the Green Tree Extension Boulevard Bridge Traffic Analysis Interim Year 2025 for Ridgecrest Road and Green Tree Boulevard and the project driveways.

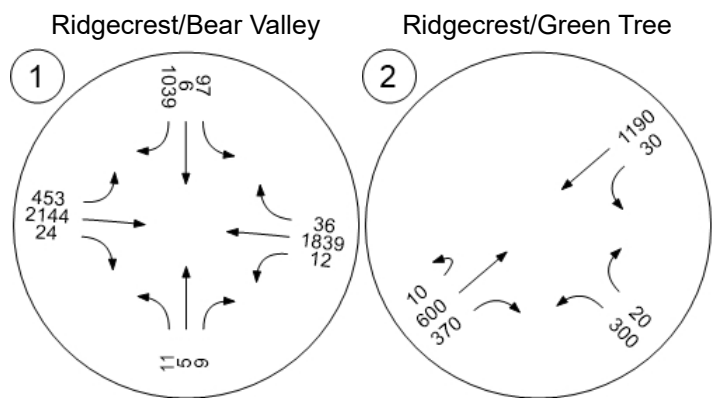
OYNP Volumes = (Existing (2019) Counts * 1.02¹)

Exhibit 8 shows *OYNP* AM and PM peak hour volumes at the study intersections.

6.3 OYNP INTERSECTION LEVEL OF SERVICE ANALYSIS

EAP conditions AM and PM peak hour intersection analysis is shown in **Table 9**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix C**.

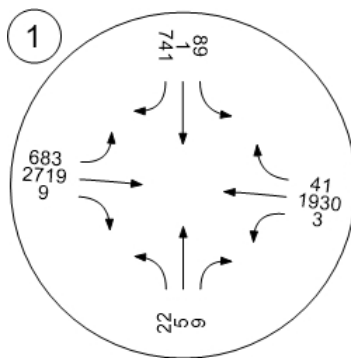
Traffic Volume - Base Volume



Traffic Volume - Base Volume



Ridgecrest/Bear Valley



Ridgecrest/Green Tree

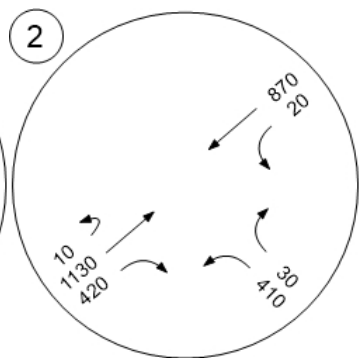


Table 9:
Intersection Analysis – OYNP Conditions

Intersection	Control Type	Peak Hour	OYNP Conditions	
			Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	83.6	F
		PM	160.8	F
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	12.8	B
		PM	17.8	B
#3 – Ridgecrest Rd/Project Driveway (N)	OWSC	AM	--	--
		PM	--	--
#4 – Ridgecrest Rd/Project Driveway (S)	OWSC	AM	--	--
		PM	--	--

Note: AWSC = All- Way Stop-Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 9**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *OYNP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

7.0 PROJECT OPENING YEAR WITH PROJECT CONDITIONS (OYWP)

Project opening year with project (OYWP) conditions analysis is intended to identify the project-related cumulative impacts on both the existing and planned near-term circulation system.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *existing plus ambient plus project* scenario are consistent with those previously shown in **Exhibit 3**, with the following exceptions:

- Green Tree Boulevard will be extended from its existing terminus at Hesperia Road to Ridgecrest Road and provide access to Yates Road through to Apple Valley Road
- The Green Tree Boulevard and Ridgecrest Road will be a signalized T-intersection with Green Tree Boulevard and Yates Road being the east/west roadways and Ridgecrest Road being the north/south roadway.

7.2 OYWP TRAFFIC VOLUMES

OYWP volumes include background traffic plus the addition of the traffic projected to be generated by the proposed project. Since the proposed project is expected to be built and generating trips in 2021, *OYWP* volumes include a growth rate of 2% per year for two years, applied to existing volumes. It should be noted, the extension of the Green Tree Boulevard would provide residents of Spring Valley Lake a direct route to I-15 reducing the traffic volume along Ridgecrest Road and Bear Valley Road. To account for this redistribution of traffic, this analysis uses volumes based on data from the Green Tree Extension Boulevard Bridge Traffic Analysis Interim Year 2025 for Ridgecrest Road and Green Tree Boulevard and the project driveways.

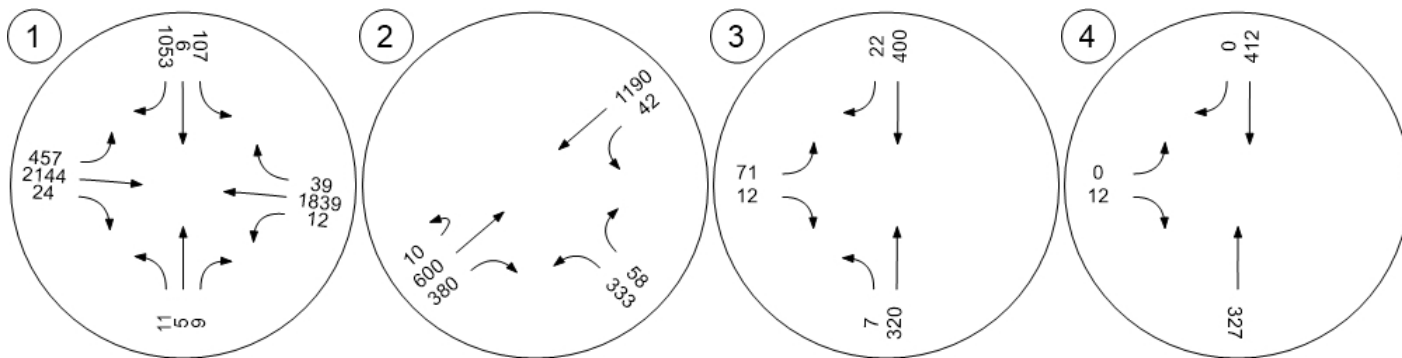
OYWP Volumes = (Existing (2019) Counts * 1.02¹) + Project Traffic

Exhibit 9 shows *OYWP* AM and PM peak hour volumes at the study intersections.

7.3 OYWP CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

OYWP conditions AM and PM peak hour intersection analysis is shown in **Table 10**. HCM analysis sheets are provided in **Appendix C**.

Traffic Volume - Base Volume



Traffic Volume - Base Volume

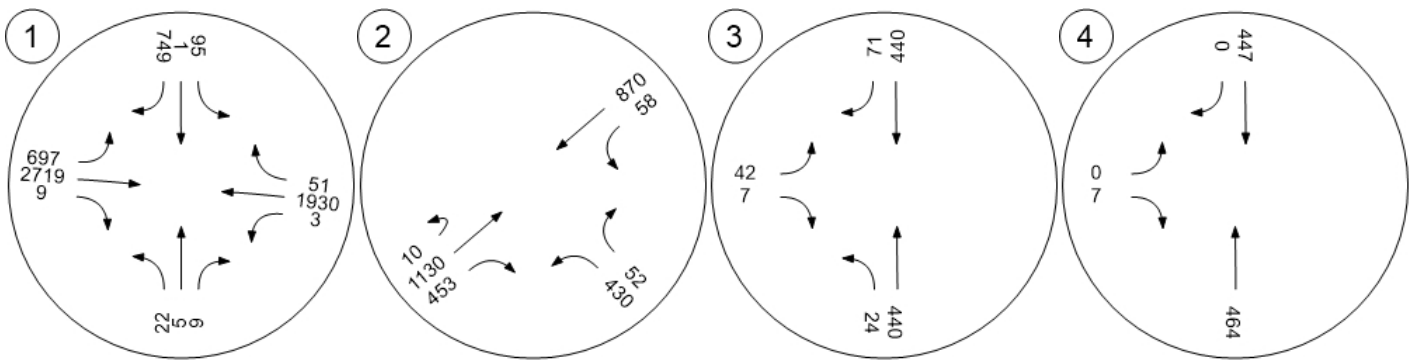


Table 10:
Intersection Analysis – OYWP Conditions

Intersection	Control Type	Peak Hour	OYNP Conditions		OYWP Conditions			
			Delay ¹	LOS	Delay ¹	LOS	Change	Impact?
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	83.6	F	84.2	F	0.6	Yes
		PM	160.8	F	164.2	F	3.3	Yes
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	12.8	B	14.5	B	1.7	No
		PM	17.8	B	21.2	C	3.4	No
#3 – Ridgecrest Rd/Project Driveway (North)	OWSC	AM	--	--	15.4	C	--	No
		PM	--	--	17.6	C	--	No
#4 – Ridgecrest Rd/Project Driveway (South)	OWSC	AM	--	--	9.6	A	--	No
		PM	--	--	9.6	A	--	No

Note: AWSC = All-Way Stop-Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 10**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *OYWP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the PM Peak Hour).

7.4 OYWP CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *OYWP* conditions have been prepared based on *OYWP* peak-hour and four-hour intersection volumes at the project site access locations.

Table 11 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 11:
Signal Warrant Analysis – OYWP Conditions

Intersection	Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
		AM Peak Hour	PM Peak Hour
#3 – Ridgecrest Rd/Project Driveway (North)	No	No	No
#4 – Ridgecrest Rd/Project Driveway (South)	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *OYWP* conditions.

7.5 OYWP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *OYWP* conditions.

OYWP Recommended Improvement (OYWP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Rd.

Table 12 Table 8 shows *OYWP* level of service at the intersection with the recommended improvements.

Table 12:

Intersection Analysis – OYWP Conditions with Recommended Improvements

Intersection	Control Type	Peak Hour	OYNP Conditions		OYWP Conditions		OYWP With Recommended Improvements	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	83.6	F	84.2	F	40.4	D
		PM	160.8	F	164.2	F	89.1	F

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 12**, with the recommended improvements, the intersection is projected to operate at an acceptable/improved LOS for *OYWP* conditions.

8.0 FUTURE YEAR (2030) WITHOUT PROJECT CONDITIONS (FUTURE NP)

Future Year (2030) without project (Future NP) conditions analysis is intended to determine any long range cumulative project impacts on the planned circulation system.

8.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Future Year (2030 without project)* conditions are consistent with those previously shown in **Exhibit 3**, with the following exceptions:

- Green Tree Boulevard will be extended from its existing terminus at Hesperia Road to Ridgecrest Road and provide access to Yates Road through to Apple Valley Road
- The Green Tree Boulevard and Ridgecrest Road will be a signalized T-intersection with Green Tree Boulevard and Yates Road being the east/west roadways and Ridgecrest Road being the north/south roadway.

8.2 FUTURE NP TRAFFIC VOLUMES

Future NP volumes include background traffic anticipated for year 2030. A growth rate of 2.5% per year from existing year (2019) to future year (2030) was used to determine *Future NP* volumes. This growth rate accounts for cumulative project traffic and was determined based on the San Bernardino Transportation Analysis Model (SBTAM) Year 2012 and Year 2040 traffic models. It should be noted, the extension of the Green Tree Boulevard would provide residents of Spring Valley Lake a direct route to I-15 reducing the traffic volume along Ridgecrest Road and Bear Valley Road. To account for this redistribution of traffic, this analysis uses volumes based on data from the Green Tree Extension Boulevard Bridge Traffic Analysis Interim Year 2025 for Ridgecrest Road and Green Tree Boulevard and the project driveways.

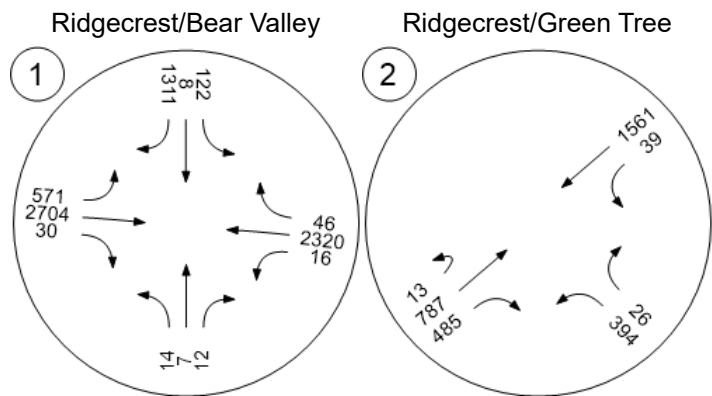
Future NP Volumes = (Existing (2019) Counts * 1.025¹¹)

Exhibit 10 shows *Future Year (2030) without project* AM and PM peak hour volumes at the study intersections.

8.3 FUTURE NP CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Future NP conditions AM and PM peak hour intersection analysis is shown in **Table 13**. HCM analysis sheets are provided in **Appendix C**.

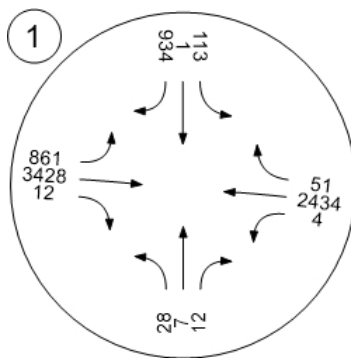
Traffic Volume - Base Volume



Traffic Volume - Base Volume



Ridgecrest/Bear Valley



Ridgecrest/Green Tree

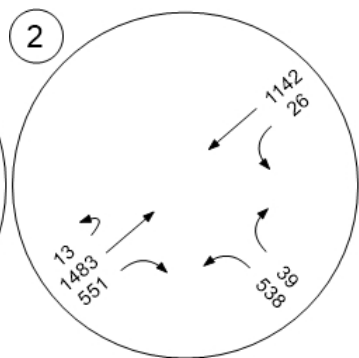


Table 13:
Intersection Analysis – Future NP Conditions

Intersection	Control Type	Peak Hour	OYNP Conditions	
			Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	171.4	F
		PM	294.8	F
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	17.0	B
		PM	46.5	D
#3 – Ridgecrest Rd/Project Driveway (N)	OWSC	AM	--	--
		PM	--	--
#4 – Ridgecrest Rd/Project Driveway (S)	OWSC	AM	--	--
		PM	--	--

Note: AWSC = All- Way Stop-Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 13**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *EACP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

9.0 FUTURE YEAR (2030) WITH PROJECT CONDITIONS (FUTURE WP)

Future Year (2030) with project (Future WP) conditions analysis is intended to determine any long range cumulative project impacts on the planned circulation system.

9.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Future Year (2030 with project)* conditions are consistent with those previously shown in **Exhibit 3**, with the following exceptions:

- Green Tree Boulevard will be extended from its existing terminus at Hesperia Road to Ridgecrest Road and provide access to Yates Road through to Apple Valley Road
- The Green Tree Boulevard and Ridgecrest Road will be a signalized T-intersection with Green Tree Boulevard and Yates Road being the east/west roadways and Ridgecrest Road being the north/south roadway.

9.2 FUTURE WP TRAFFIC VOLUMES

Future WP volumes include background traffic anticipated for year 2030 plus the addition of the traffic projected to be generated by the proposed project. A growth rate of 2.5% per year from existing year (2019) to future year (2030) was used to determine *Future WP* volumes. This growth rate accounts for cumulative project traffic and was determined based on the San Bernardino Transportation Analysis Model (SBTAM) Year 2012 and Year 2040 traffic models. It should be noted, the extension of the Green Tree Boulevard would provide residents of Spring Valley Lake a direct route to I-15 reducing the traffic volume along Ridgecrest Road and Bear Valley Road. To account for this redistribution of traffic, this analysis uses volumes based on data from the Green Tree Extension Boulevard Bridge Traffic Analysis Interim Year 2025 for Ridgecrest Road and Green Tree Boulevard and the project driveways.

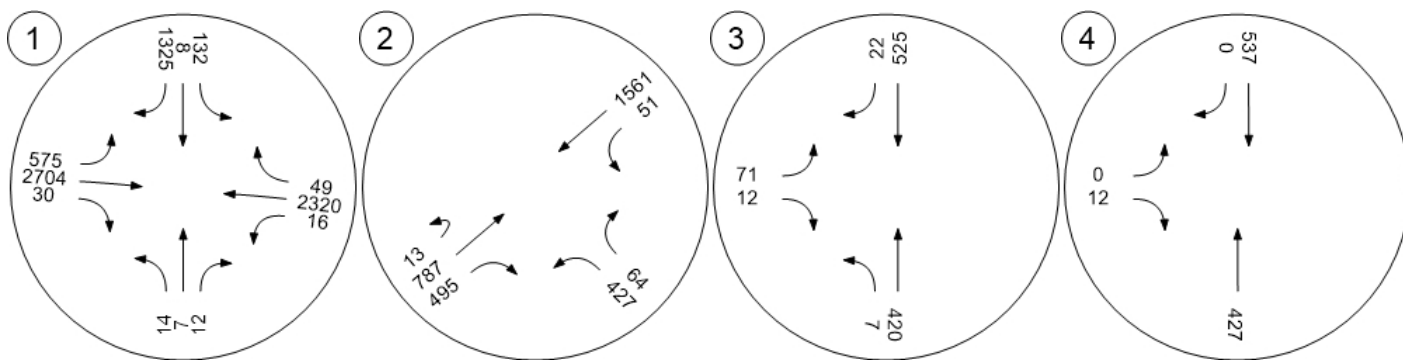
Future WP Volumes = (Existing (2019) Counts * 1.025¹¹) + Project Traffic

Exhibit 11 shows *Future Year (2030) with project* AM and PM peak hour volumes at the study intersections.

9.3 FUTURE WP CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Future WP conditions AM and PM peak hour intersection analysis is shown in **Table 13**. HCM analysis sheets are provided in **Appendix C**.

Traffic Volume - Base Volume



Traffic Volume - Base Volume

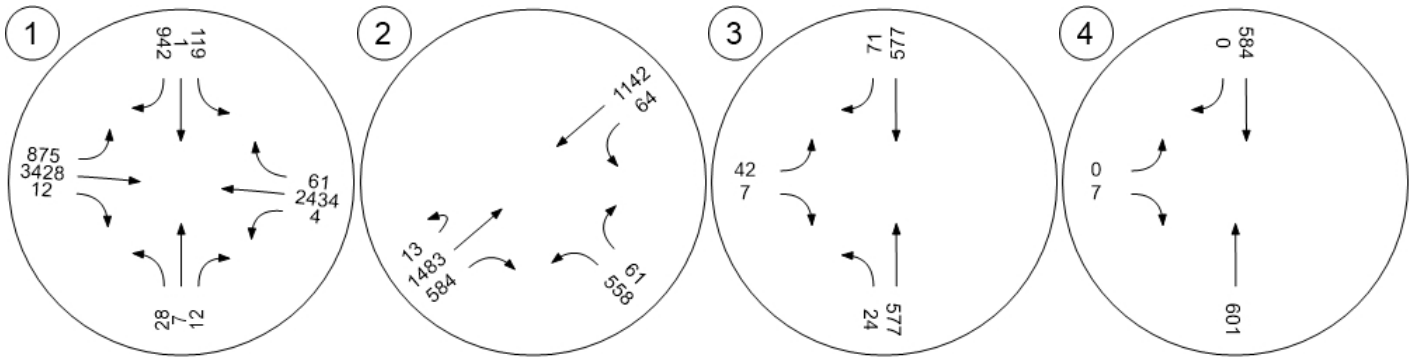


Table 14:
Intersection Analysis – Future WP Conditions

Intersection	Control Type	Peak Hour	Future NP Conditions		Future WP Conditions			
			Delay ¹	LOS	Delay ¹	LOS	Change	Impact?
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	171.4	F	172.6	F	1.2	Yes
		PM	294.8	F	297.9	F	3.1	Yes
#2 – Ridgecrest Rd/Green Tree Blvd	Signal	AM	17.0	B	18.7	B	1.7	No
		PM	46.5	D	49.4	D	2.8	No
#3 – Ridgecrest Rd/Project Driveway (North)	OWSC	AM	--	--	19.7	C	--	No
		PM	--	--	23.7	C	--	No
#4 – Ridgecrest Rd/Project Driveway (South)	OWSC	AM	--	--	10.0	B	--	No
		PM	--	--	10.2	B	--	No

Note: AWSC = All-Way Stop-Control, Delay shown in seconds per vehicle.

1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 134**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *Future WP* conditions with the exception of the following intersection:

- #1 – Ridgecrest Rd/Bear Valley Rd (LOS F in the AM and PM Peak Hour).

9.4 FUTURE WP CONDITIONS SIGNAL WARRANT ANALYSIS

Traffic signal warrants for *Future WP* conditions have been prepared based on *Future WP* peak-hour and four-hour intersection volumes at the project site access locations.

Table 15 summarizes the results of the signal warrant analysis. Detailed warrant analysis sheets are contained in **Appendix D**.

Table 15:
Signal Warrant Analysis – Future WP Conditions

Intersection	Four-Hour Signal Warrant Met?	Peak Hour Signal Warrant Met?	
		AM Peak Hour	PM Peak Hour
#3 – Ridgecrest Rd/Project Driveway (North)	No	No	No
#4 – Ridgecrest Rd/Project Driveway (South)	No	No	No

Peak-hour and four-hour signal warrants are not met at any of the unsignalized study intersections for *Future WP* conditions.

9.5 FUTURE WP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *Future WP* conditions.

Future WP Recommended Improvement (FWP-1): #1 Ridgecrest Rd/Bear Valley Rd - Improve intersection to accommodate a second left turn lane for eastbound Bear Valley Rd.

Table 16 shows *Future WP* level of service at the intersection with the recommended improvements.

Table 16:
Intersection Analysis – Future WP Conditions with Recommended Improvements

Intersection	Control Type	Peak Hour	Future NP Conditions		Future WP Conditions		Future WP With Recommended Improvements	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
#1 – Ridgecrest Rd/Bear Valley Rd	Signal	AM	171.4	F	172.6	F	123.4	F
		PM	294.8	F	297.9	F	204.4	F

Note: AWSC = All-Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.
 1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 16**, with the recommended improvements, the intersection is projected to operate at an acceptable/improved LOS for *Future WP* conditions.

10.0 CONCEPTUAL STRIPING AND SITE DISTANCE

This section summarizes proposed site access and on-site circulation recommendations.

10.1 ON-SITE ROADWAY IMPROVEMENTS

Whenever necessary, roadways adjacent to the proposed project site and site access points should be constructed in compliance with recommended roadway classifications and respective cross-sections in the City of Victorville General Plan Circulation Element or as directed by the City Engineer.

10.2 CONCEPTUAL STRIPING

As shown in *Exhibit 12*, the conceptual striping depicts Ridgecrest Road as a 4-Lane Undivided Roadway. There are two through lanes in each direction along on the road. There will be a dedicated left turn pocket for cars to turn into one of the project driveways.

10.3 SITE DISTANCE ANALYSIS

A sight distance analysis for the proposed project driveway has been prepared based on the “stopping sight distance” requirements determined by Topic 201 and Table 201.1 of the *Caltrans Highway Design Manual (HDM)*, last edition. **Table 17** shows the minimum stopping sight distances based on the design speed, as displayed in Table 201.1 of the HDM.

Table 17:
Stopping Sight Distance

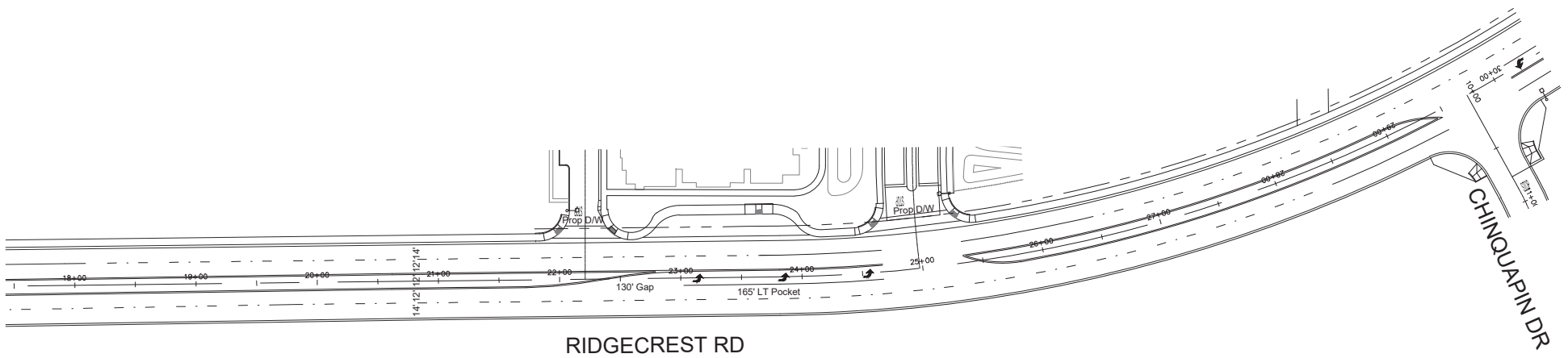
Design Speed (mph)	Stopping Sight Distance (ft)
25	150
30	200
35	250
40	300
45	360
50	430
55	500

Source: Table 201.1, Highway Design Manual (July 2, 2018)
Note: mph = miles per hour; ft = feet

In this analysis, the movements being analyzed at the Ridgecrest Road/Project Driveway intersection are movements from the exiting vehicles onto Ridgecrest Road. Based on the posted speed limit of 55 miles per hour on Ridgecrest Road, a stopping sight distance of 500 feet is required per HDM standards.

Exhibit 13A and Exhibit 13B display the sight distance conditions at the project driveway in relation to the proposed sidewalk and striping on Ridgecrest Road. The exhibit shows the required 15-foot setback from the edge of travel way and the 500-feet of sight distance required based on the 55 mph speed limit.

As shown in **Exhibit 13A** and **Exhibit 13B**, the stopping sight distance requirements would be impaired by any permanent obstructions along Ridgecrest Road immediately north and south of the project driveway. It is recommended that any permanent obstructions over a height of 30-inches shall not be installed in the sight triangle as seen in the exhibits.



RIDGECREST RD

CHINQUAPIN DR



Exhibit 12: Conceptual Striping Plan

LVA-19-001 Lake View Apartments Traffic Impact Analysis

TJW ENGINEERING, INC.



Not to Scale

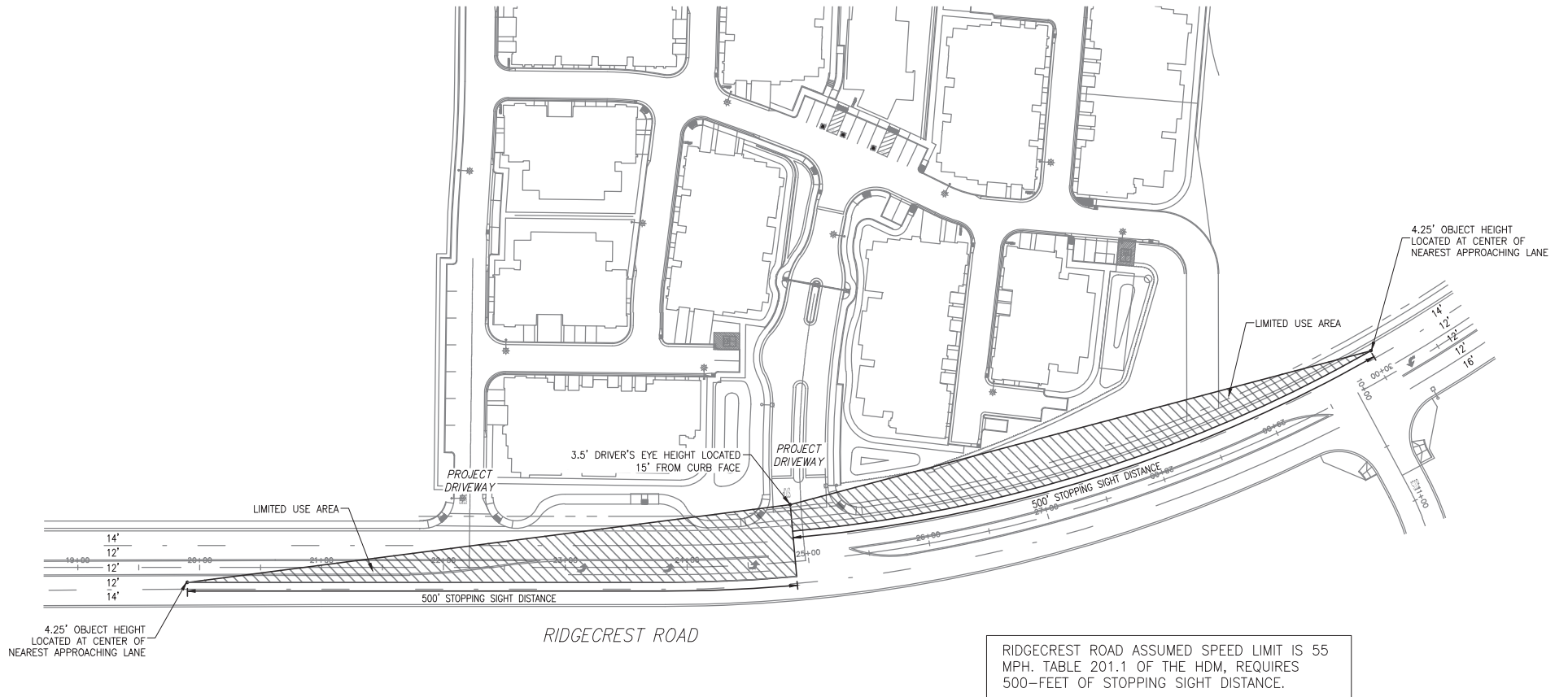
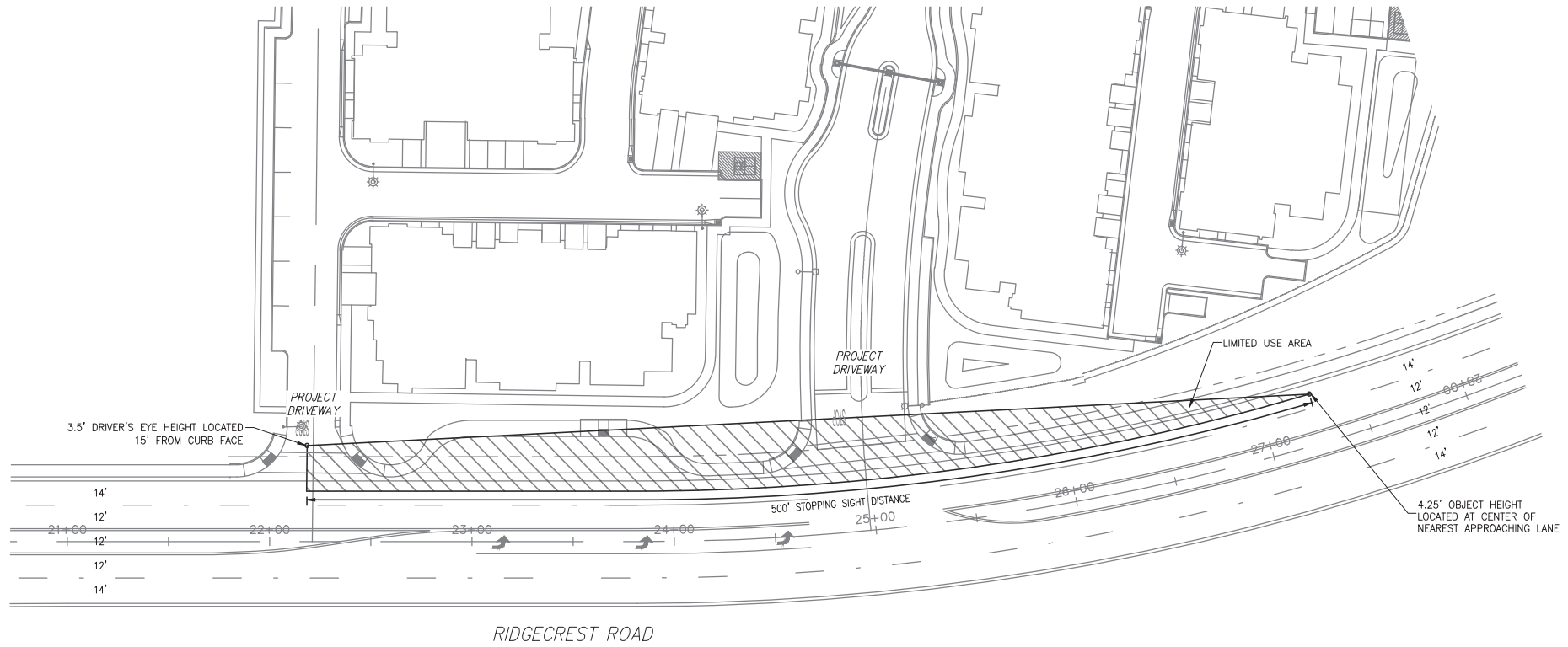


Exhibit 13A: Sight Distance Analysis

LVA-19-001 Lake View Apartments Traffic Impact Analysis





RIDGECREST ROAD ASSUMED SPEED LIMIT IS 55 MPH. TABLE 201.1 OF THE HDM, REQUIRES 500- FEET OF STOPPING SIGHT DISTANCE.

Exhibit 13B: Sight Distance Analysis

LVA-19-001 Lake View Apartments Traffic Impact Analysis



Not to Scale

11.0 MITIGATION AND FAIR SHARE

The proposed project will contribute to the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program.

The City Engineer will ultimately determine the improvements required at off-site intersections.

11.1 MITIGATION MEASURES

The traffic study was conducted to identify any anticipated deficiencies that the proposed project may contribute to. Roadway improvements have been identified that will reduce operational deficiencies throughout the proposed study area.

11.2 FAIR SHARE CALCULATIONS

Transportation improvements throughout the City of Victorville are funded through a combination of direct project mitigation, faire share contributions, or development impact fee programs. The project’s contribution to the aforementioned transportation improvement funding mechanisms or as a fair share contribution towards a cumulatively impacted facility should be considered sufficient to address the project’s fair share towards mitigation measure(s) designed to alleviate cumulative project impacts. **Table 18** calculates the proposed project’s fair share percentage at impacted intersections.

Table 18:
Fair Share Calculations

Intersection	Baseline AM & PM Peak Hour Volume (A)	Opening Year AM & PM Peak Hour			Future Year AM & PM Peak Hour		
		Total Volume (B)	Project Volume (C)	Fair Share (C) / (B-A)	Total Volume (B)	Project Volume (C)	Fair Share (C) / (B-A)
#1 – Ridgecrest Rd / Bear Valley Rd	11,466	11,996	69	13.02%	15,115	69	1.89%

Appendices

APPENDIX A

SCOPING AGREEMENT AND CITY OF VICTORVILLE GENERAL PLAN ROADWAY CLASSIFICATIONS
AND CROSS SECTIONS



TJW ENGINEERING, INC.
 TRAFFIC ENGINEERING &
 TRANSPORTATION PLANNING
 CONSULTANTS

October 22, 2019

Mr. Anwar Wagdy, TE
 City of Victorville
 14343 Civic Drive
 Victorville, CA 92392

SUBJECT: Lake View Apartments Traffic Impact Analysis Scoping Agreement, City of Victorville

Dear Mr. Wagdy,

TJW Engineering, Inc. (TJW) will be preparing a traffic impact analysis (TIA) for the proposed Lake View Apartments project located southwest of Ridgcrest Road and Chinquapin Drive in the City of Victorville. The proposed project includes a 270-unit apartment complex. The proposed site plan has been attached to this letter. TJW anticipates the following scope will be required to prepare the TIA.

SCOPE OF SERVICES

Trip Generation Assumptions

Trip generation for the proposed project will be developed using rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) for Land Use 220 – Multi-Family Housing (Low-Rise). As shown in Table 1, the project is anticipated to generate 1,969 daily trips, 124 AM peak hour trips, and 151 PM peak hour trips.

Table 1: Proposed Project Trip Generation

Proposed Land Use ¹	Qty	Unit	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour				
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
							In	Out	Total			In	Out	Total
Multi-Family Housing (Low-Rise) (220)	269	DU	7.32	1,969	0.46	23:77	29	95	124	0.56	63:37	95	56	151
Total				1,969			29	95	124			95	56	151

¹: Rates from ITE Trip Generation (10th Edition, 2017)

Trip Distribution Assumptions

Project trip distributions will be based on the surrounding regional access routes to identify probable routes onto which project traffic would distribute. The anticipated travel patterns to and from the project site are shown in the attached exhibits.

Study Intersections

The study area shall generally include intersections in which the proposed project may create a significant impact. As such, TJW proposes to include the following intersections:

1. Ridgecrest Rd / Bear Valley Rd
2. Ridgecrest Rd / Green Tree Blvd
3. Ridgecrest Rd / Project Access Driveway

Analysis Methodology and Scenarios

The analysis of traffic and level of service will be provided for the following scenarios and will include an assessment of traffic mitigation measures if any are required:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Project Opening Year (2021) without Project Conditions
4. Project Opening Year (2021) with Project Conditions
5. Future Year 2030 Cumulative without Project Conditions
6. Future Year 2030 Cumulative with Project Conditions

The TIA will analyze study intersections during the AM and PM peak hours. Intersection level of service (LOS) will be calculated using the Highway Capacity Manual 6 (HCM 6) analysis methodologies.

Volume Development

Traffic volumes for existing year traffic conditions will be based on existing AM and PM peak hour traffic counts for the study intersections identified above. New traffic counts will be conducted between the hours of 7 AM and 9 AM for the AM peak hour and between the hours of 4 PM and 6 PM for the PM peak hour and avoiding any school/roadway closure periods.

Project Opening Year traffic volumes will be developed by applying an annual growth rate of 2% to the existing volumes, plus the addition of cumulative projects (to be provided by the City). Note, Ridgecrest Rd / Green Tree Blvd is a future intersection; TJW will utilize data projections for year 2025 (provided by the City) for Opening Year volumes at this intersection.

Future Year 2030 traffic volumes will be developed by applying an annual growth rate to the existing volumes. The annual growth rate will be developed and based on the San Bernardino County Transportation Analysis Model (SBTAM).

Project Impact Assessment and Mitigation Measures

Intersection LOS without the project will be compared to the intersection LOS with the project for each of the analysis scenarios to determine potential project impacts. Determination of a project impact will be made based on the City's LOS threshold standards. If the level of service analysis shows that the project causes a significant impact at a study facility, feasible improvements will be recommended to reduce the impact to a level considered less than significant and/or to baseline conditions. As applicable, the project's fair share will be estimated as part of the mitigation section (fair share is 100% for direct impacts).

Project Site Access

TJW will include a section on the project site access with respect to Ridgecrest Road. This section will include a peak hour traffic signal warrant analysis at the project driveway. The signal warrant analysis will be based on the California Manual on Uniform Traffic Control Devices (CA MUTCD) signal warrant analysis methodology. In addition, a line-of-site analysis and conceptual striping plan will be included for the primary project access driveway along Ridgecrest Road.

If you have any questions regarding this scope of work or project, please feel free to contact me at David@tjwengineering.com or at (949) 878-3509.

Sincerely,

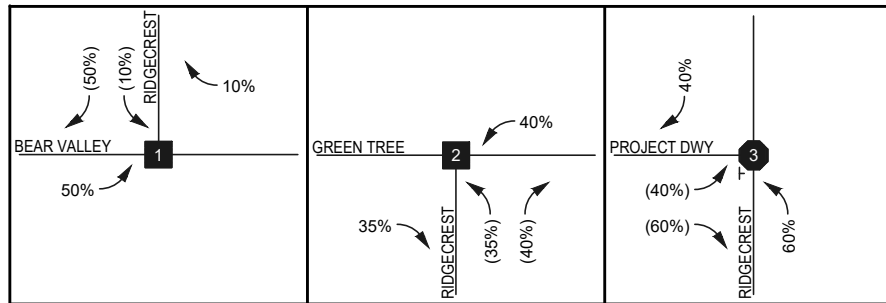


David Chew, PTP
Transportation Planning Manager
TJW Engineering, Inc.

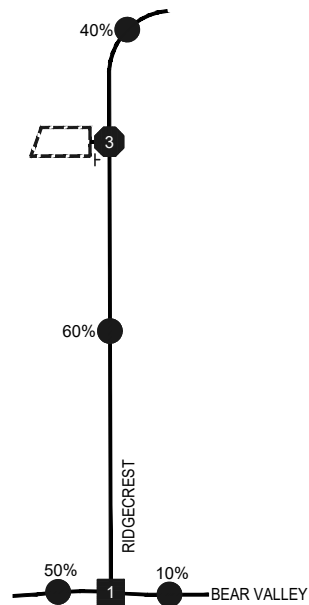


A-2

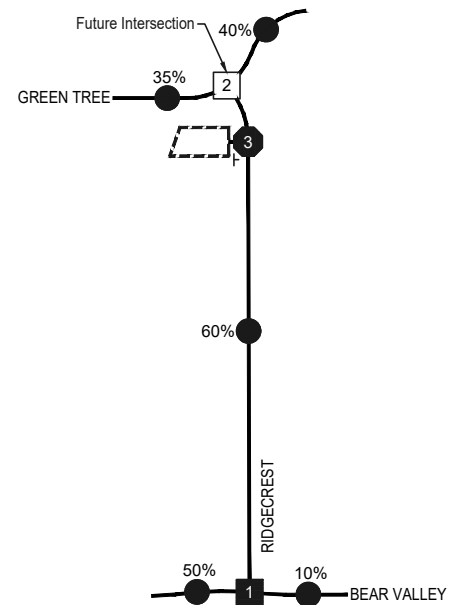
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EXISTING STUDY AREA



OPENING YEAR STUDY AREA



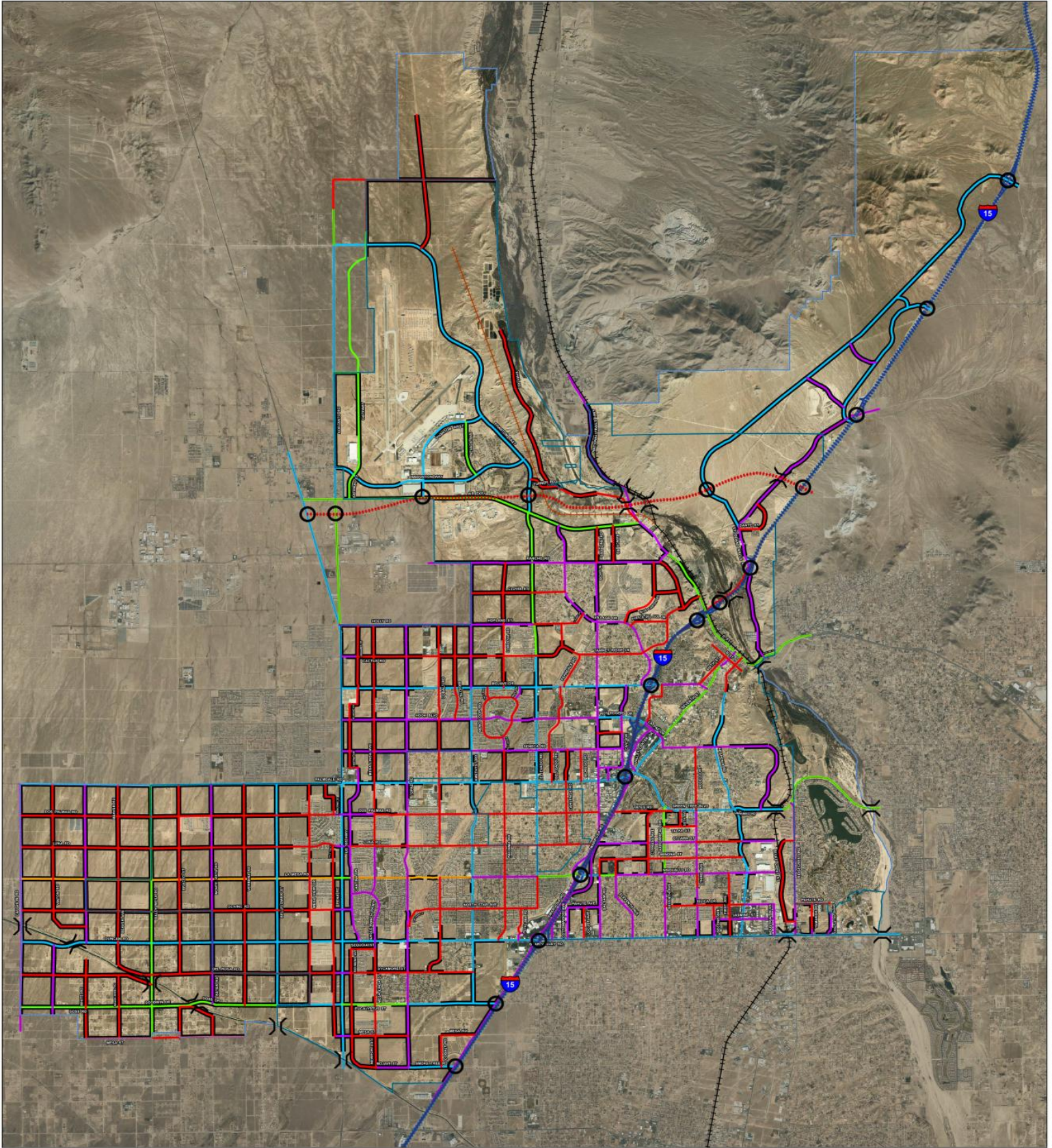
- Legend:
- XX% Inbound Percent Trip Distribution
 - (XX%) Outbound Percent Trip Distribution
 - Project Site



Exhibit A: Project Trip Distribution at Study Intersections



CITY OF VICTORVILLE - CIRCULATION MAP



Victorville City Boundary	I-15
Victorville Sphere of Influence	BNSF Rail
High Desert Corridor Freeway	City Rail
Interchange	Bridge

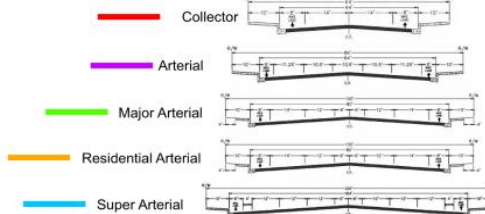


City of Victorville - Circulation Map
 City of Victorville
 Printed: February 13, 2018
 Contact: Matthew Pugh - Technology Div.

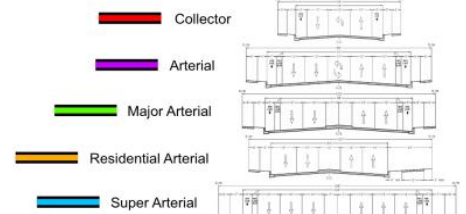


Disclaimer: This map is to be used for visual reference only. Sources are available upon request.

Retrofit Street Sections



Street Sections



*Where indicated, roadway improvements shall be completed to half-width per designed cross section for both Street Sections and Retrofit Street Sections

Historic Route 66

One of the original federal routes, Route 66 or Will Rogers Highway was established in 1926. Its original length of approximately 2,500 miles connected the cities of Chicago, Illinois and Los Angeles, California, traversing through the states of Missouri, Kansas, Oklahoma, Texas, New Mexico and Arizona. As a major migratory path west, especially during the Dust Bowl of the 1930s, it supported the economies of the communities through which it passed. These communities later fought to keep it alive when the new interstate freeway system began dominating the country's transportation network. This route was officially decommissioned after the interstate freeways began to define this country's surface transportation and segments of this route that were not replaced by interstate freeway alignments were designated as national scenic byways and renamed 'Historic Route 66' (Hist-66).

Today, from the southern limit of the City of Victorville, Hist-66 follows the current alignment of I-15 to the freeway's interchange with Palmdale Road (SR-18) / 7th Street. North of this interchange, Hist-66 follows the alignment of 7th Street to D Street. Continuing northeast on D Street it follows the National Trails Highway alignment into the community of Oro Grande on the northwestern edge of the City.

Roadway Classifications

There are several different types of roadway classifications maintained by the City of Victorville that range from two lane, undivided collectors to super arterials with six lanes and a positive separation (raised median). The City has developed design standards and specifications for fourteen different street classifications, which are illustrated by their standard cross-sections shown in **Figure Circ-3**, and described below.

The roadways are designated by their primary function and level of mobility. The typical roadway cross-sections illustrated in **Figure Circ-3** are general standards and in certain cases, where implementation of the standard street width may not be possible due to various constraints, such as right of way, existing development, etc., these may be modified. Median, shoulder, lane widths and other features may be modified to the non-desired widths but still provide the functionality and safety designated in standard roadways. The function of the street will still remain the same to serve the City's traffic demand.

Super Arterials

Super Arterials transport large volumes of intercity, intra-city, and regional traffic at higher speeds with limited access control points. Super arterials generally connect to freeways to distribute traffic to other facilities such as major and secondary arterials, and collector facilities serving the City and other regional networks. At a minimum, super arterials have a 124-foot wide right of way consisting of six travel lanes, two parking lanes, and may have a raised median up to twelve-feet wide. On-street parking, if permitted, is restricted to distances 300 feet or greater from the signalized intersections. This classification is modified in the SCLA Specific Plan area.

Super arterials can also have the lane configuration of six travel lanes; a center left turn lane and additional No. 4 lanes to accommodate right turn lanes at intersections and for right in / right out, merge in / merge out movement for commercial driveway access. This lane configuration requires a curb to curb 116 foot width and 136 foot wide right of way. At intersections, the super arterial can have a double left, three through lanes and a right turn lane. The lane configuration requires a centerline to curb of 64 width and centerline to right of way of 74 foot width.

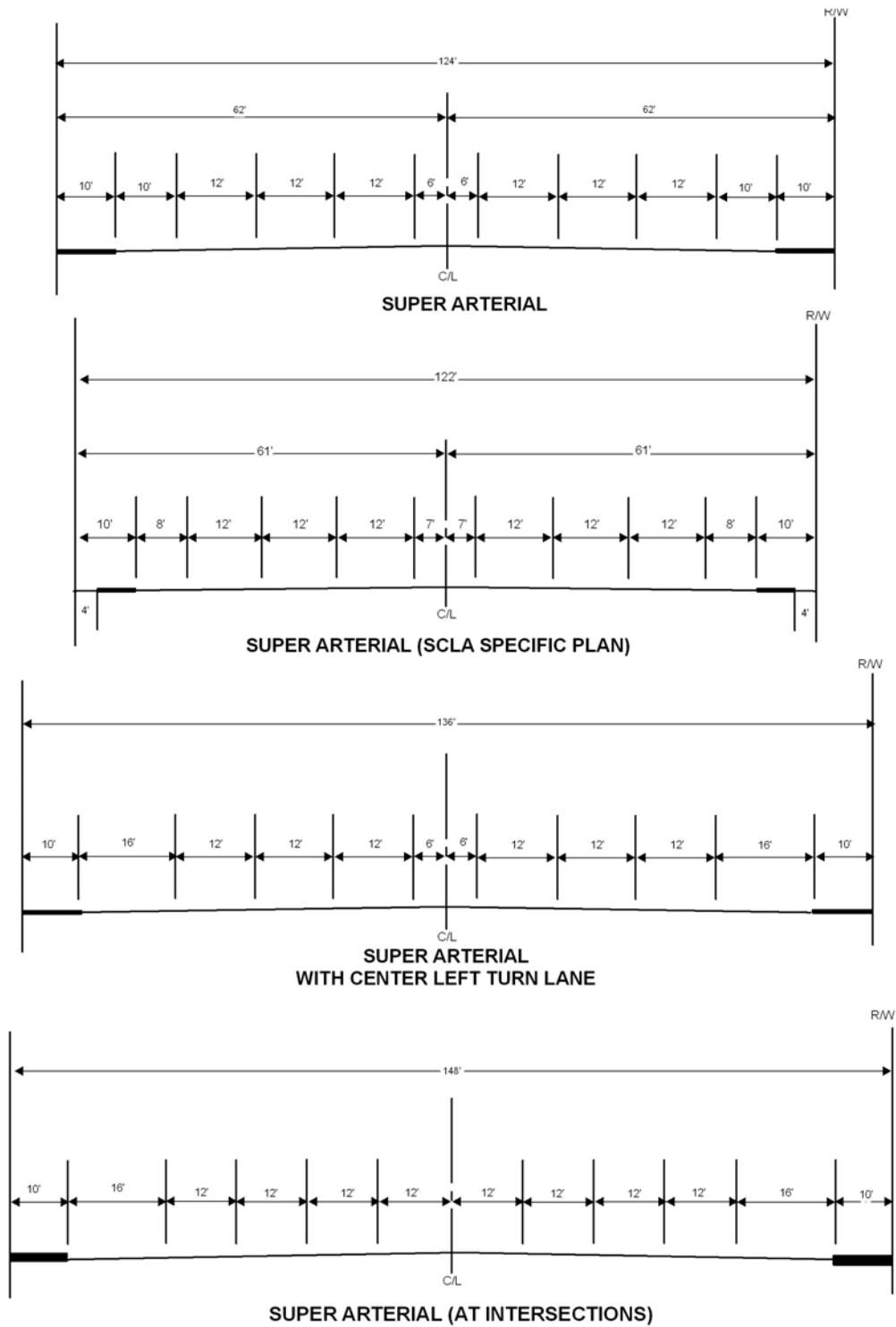


FIGURE Circ-3a: Roadway Classification Standards

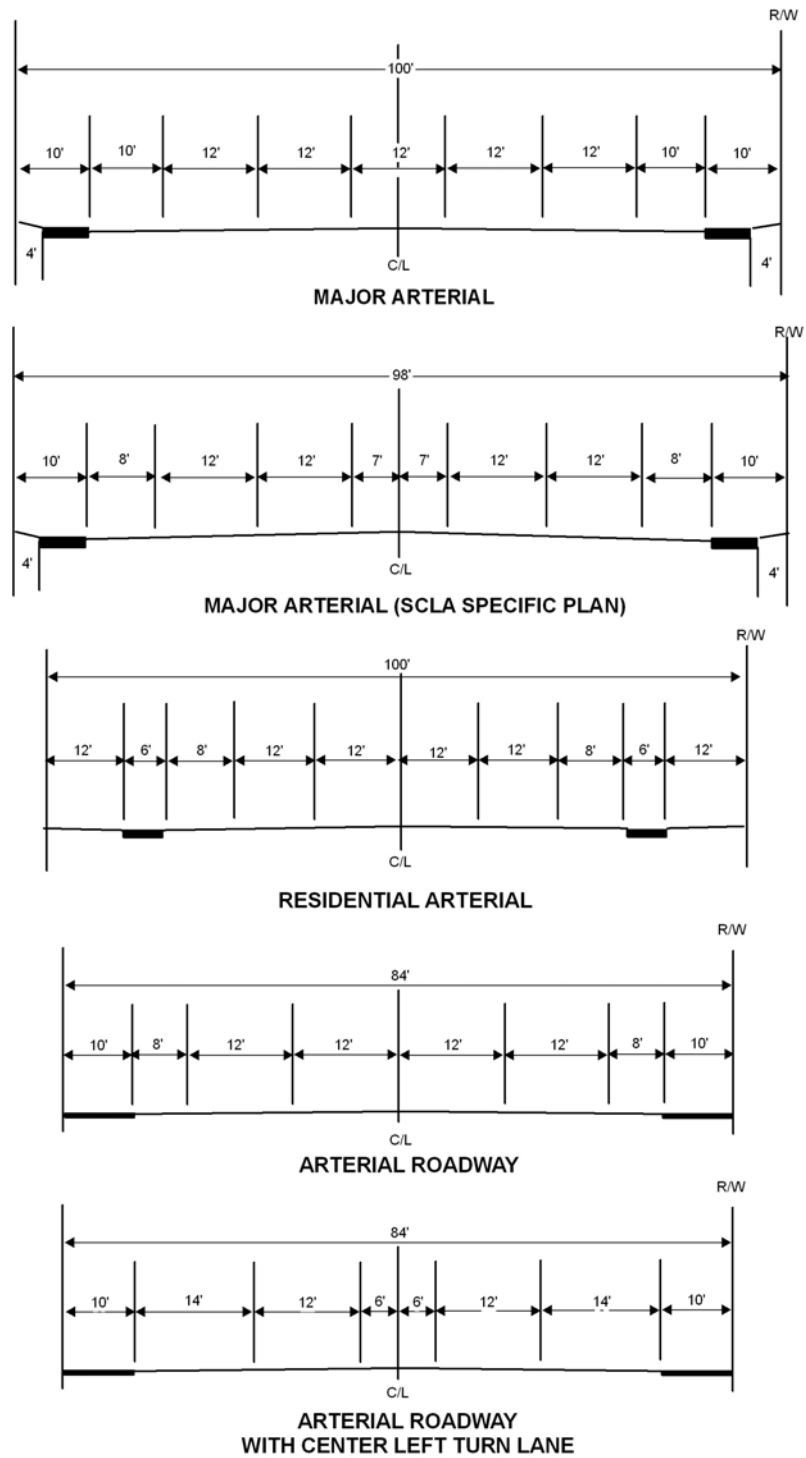


FIGURE Circ-3b: Roadway Classification Standards

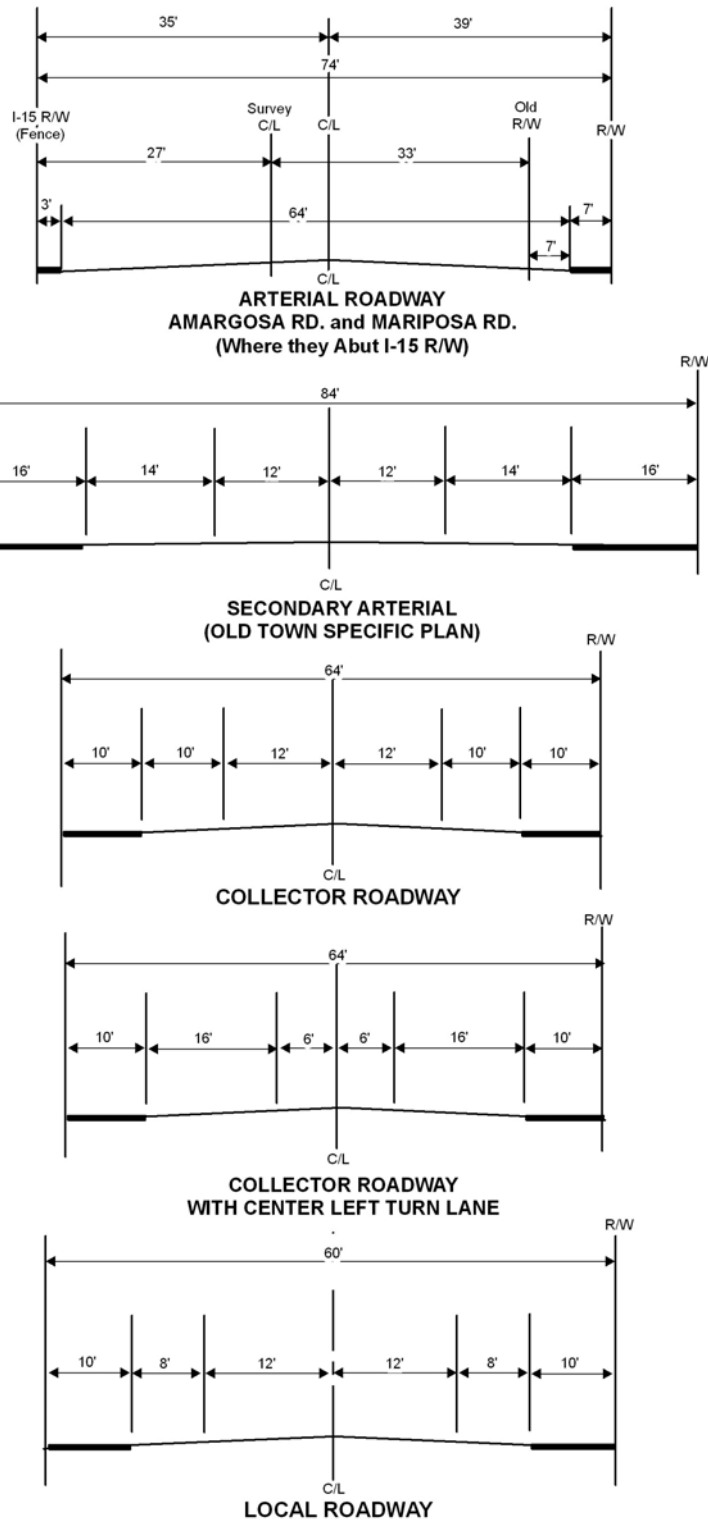


FIGURE Circ-3c: Roadway Classification Standards

Currently, this category includes Bear Valley Road east of Petaluma Road. The City's recently updated Circulation Map at build-out indicates that the full extent of Bear Valley Road, Palmdale Road, Mojave Drive, and US-395 are designated as Super Arterials.

Major Arterials

Major Arterials facilitate mobility of large volumes of intra-city traffic. These streets access freeways or super arterials and distribute traffic to secondary arterials or collector streets. Major Arterials have a 100-foot minimum right of way consisting of a minimum of four travel lanes, two parking lanes and a 12-foot wide, two-way left-turn median lane. Traffic signals are located at major intersections. Parking may be prohibited near intersections or in segments. Similar to the Super Arterials, this roadway is modified in the SCLA Specific Plan area. Existing major arterials in the Planning Area include: 7th Street, Amethyst Road, El Evado Road, Green Tree Boulevard, Hesperia Road, and La Mesa Road east of Amethyst Road

Residential Arterials

Residential Arterials transport large volumes of intra-city traffic to and from residential areas. These streets connect to major arterials, arterials, and collectors. Residential arterials have a minimum right of way of one hundred feet, four traffic lanes, and two eight-foot parking lanes. Traffic signals are located at major intersections. Parking may be prohibited near intersections or in segments. La Mesa Road west of Amethyst Road is the only designated Residential Arterial.

Arterials

Arterials serve the same function as Major Arterials, although serving relatively lower

traffic demands. The standard 84-foot right of way contains four travel lanes with a center left turn lane with parking prohibited. Alternatively, parking may be allowed without a center turn lane and may be prohibited near intersections or in segments. Left-turn and right-turn lanes are provided, as needed, at intersections. Some of the Arterials in Victorville include Amargosa Road, Eagle Ranch Parkway, Hook Boulevard, Mariposa Road, Mesa Linda Avenue, Topaz Road, Village Drive, and most of El Evado Road.

Secondary Arterials

Secondary Arterials are localized in the Old Town area, situated in the northeastern part of the City, bounded by I-15 in the west, Hesperia Road in the east, Mojave Drive/Verde Road in the south and to the north by E Street. The 84-foot R.O.W facilitates for wider sidewalks and four travel lanes. Exclusive parking and turning lanes (left and right) are not provided. 7th Street between Forrest Avenue and D Street is the only Secondary Arterial.

Collectors

Collectors are street that provide circulation within a defined geographic area and connect this area to intra-city traffic routes. Some motorists may use collectors as through routes, but the primary function of a collector is to connect local traffic to larger streets and to provide access to nearby destinations.

Collectors contain two travel lanes and two parking lanes with a 64-foot right of way. Alternatively, collectors may have two travel lanes and a center left turn lane with parking prohibited near intersections or in segments. Collector streets in the Planning Area include 1st Avenue, 9th Avenue, Cobalt Road, Cypress Avenue, Luna Road,

Pacoima Road, Reno Loop, Sycamore Street, and Tawney Ridge Lane.

Local Streets

Local Streets provide direct access to adjacent properties and transport local traffic from these properties to higher volume, higher speed facilities. In general, local streets are not intended to carry through traffic. The 60-foot right of way contains two traffic lanes and two parking lanes. Sidewalks are generally provided within a ten-foot, right of way. Most streets in residential neighborhoods are designed as Local Streets.

Modification of Design Standards in Specific Plans

The above street classification system may be modified for Specific Plans. For example, the SCLA Specific Plan specifies a slightly altered section for Super Arterials and Major Arterials. The Super Arterials in the airport area have a 122-foot wide right of way, with a continuous 14-foot wide left turn pocket and narrower parking lanes. Similarly, Major Arterials have a 98-foot right of way, continuous 14-foot wide left turn pocket and narrower parking lanes. Despite varying standards, functionality of the right of way does not deviate from the respective classification hierarchy.

Roadway Components

Super Arterial Components

Traffic Signals – Super Arterials

Locations for new traffic signals shall be at a minimum of one-half mile spacing, or at collector street classifications or above. Proposed traffic signal locations shall be justified by a traffic study and are subject to the approval of the City Engineer.

Driveway Access – Super Arterials

Residential driveway access is not allowed to a super arterial. Commercial driveway access, if allowed, should be as far away from a street intersection or other driveways as feasible. Shared driveway access with other parcels or other developments may be required. If a commercial driveway access is allowed, an additional number 4, merge in / merge out, lane is required. New driveway access shall allow right in / right out access only. Left turns in and out shall be prohibited. The design of the access control, whether raised median or other controls, is subject to the approval of the City Engineer.

Street Connections – Super Arterials

New street connections to super arterials, including Bear Valley Road, Mojave Drive, Palmdale Road and US-395 will be restricted. Only streets classified as collector or higher may connect to a super arterial. No new local street connections shall be allowed.

Major Arterial, Arterial and Collector Street Components

Traffic Signals – Major Arterial, Arterial and Collector Street

Proposed traffic signals locations shall be justified by a traffic study and are subject to the approval of the City Engineer.

Driveway Access – Major Arterial, Arterial and Collector Street

Residential driveway access is not allowed to new segments or for new subdivisions fronting on existing segments. For infill single family homes on existing segments, forward egress for residential driveways is required by either a standard circular or hammerhead driveway. Commercial driveway access should be as far away from a street intersection or other driveways as feasible,

2035 Roadway Classification

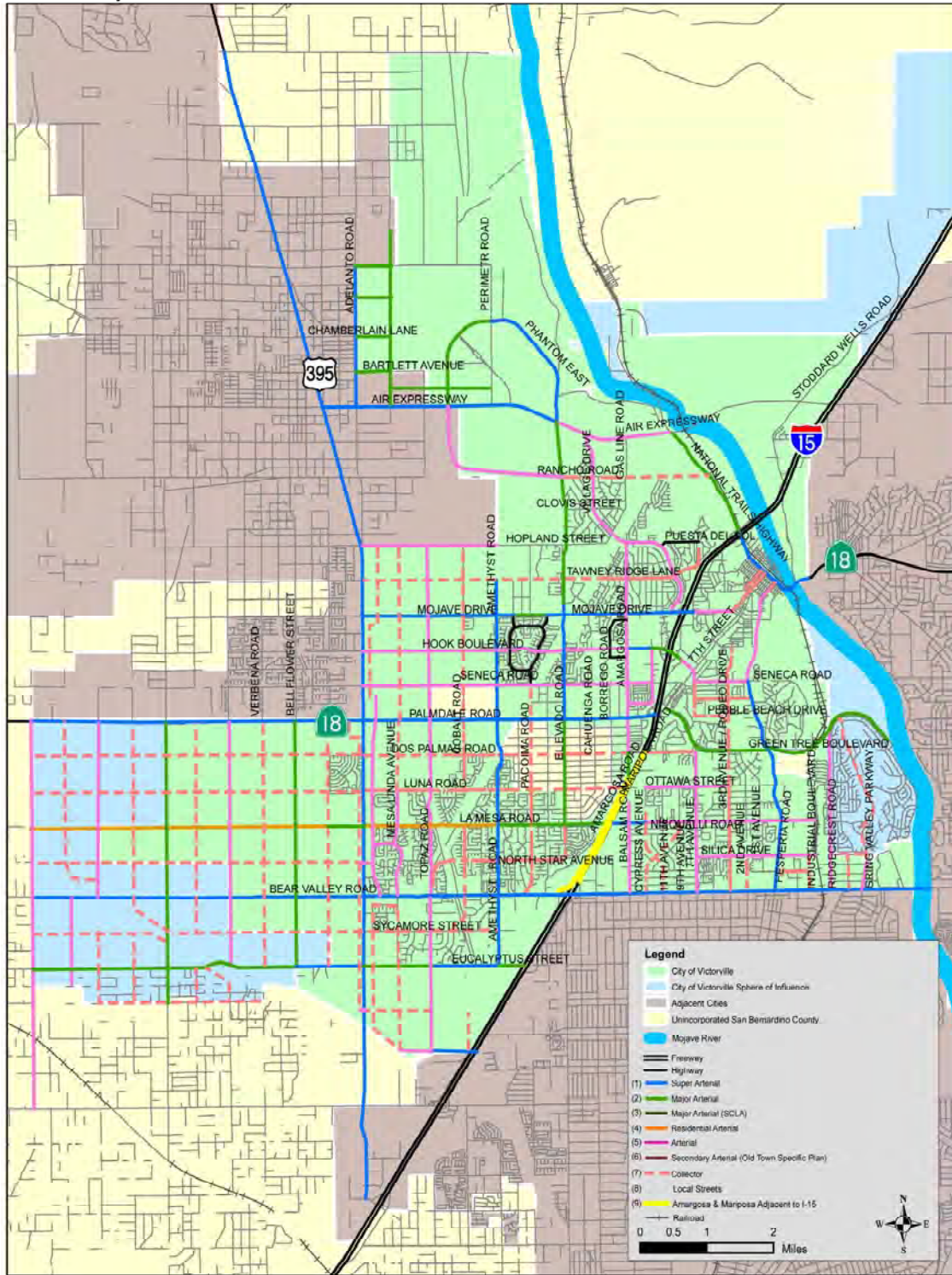


FIGURE Circ-6: 2035 Vehicular Circulation System

City of Victorville General Plan Circulation Map

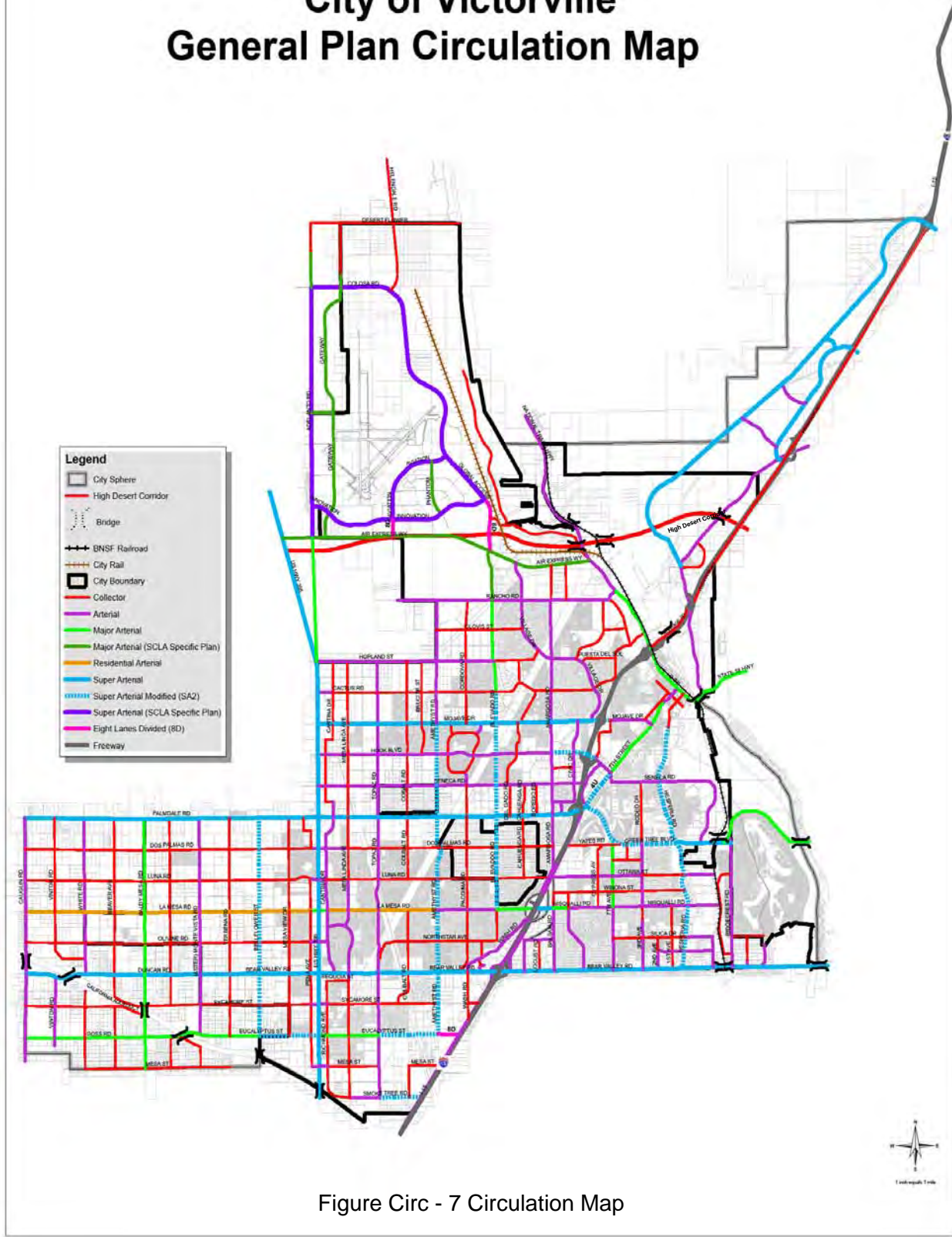


Figure Circ - 7 Circulation Map

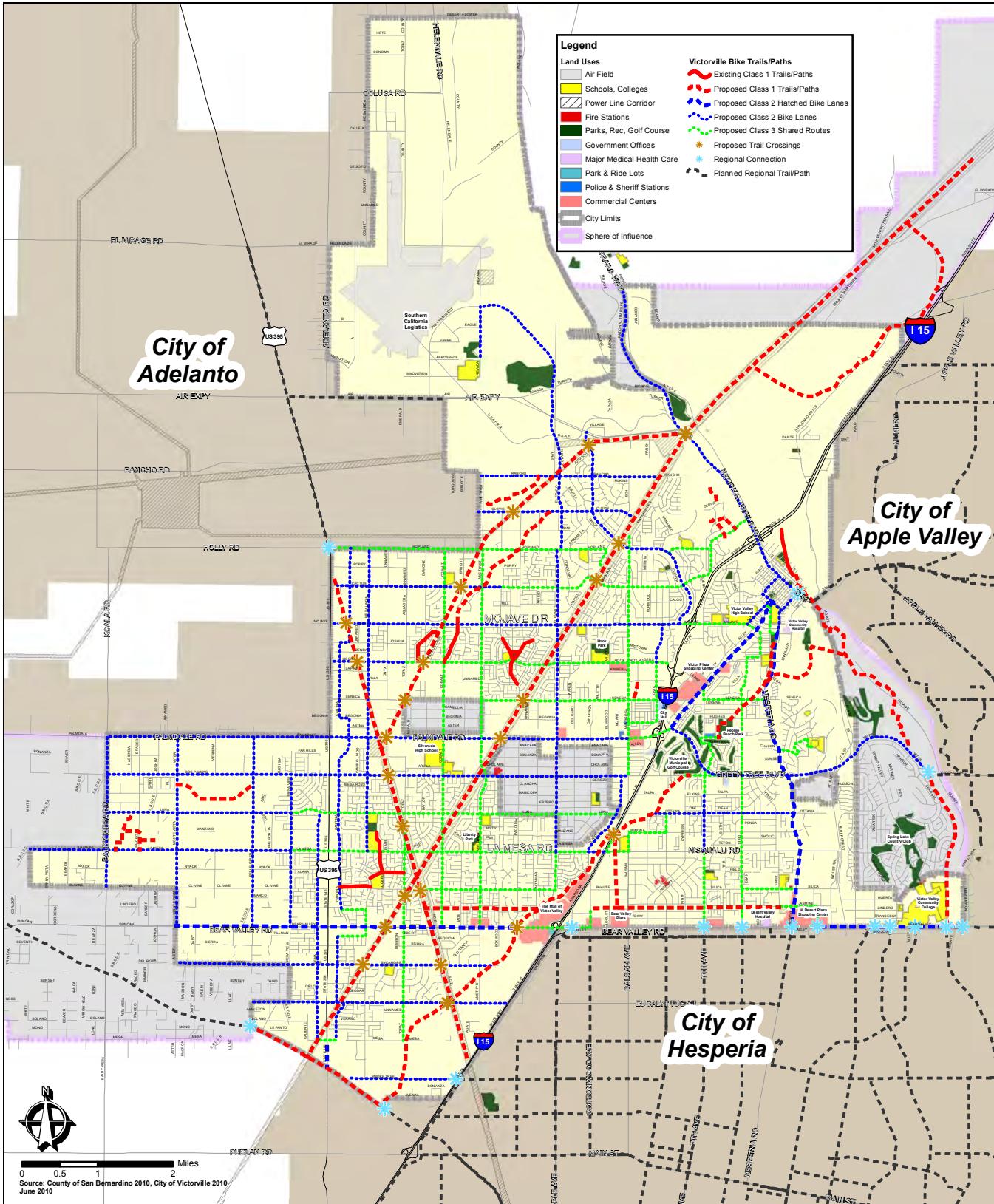


Exhibit 6.1
Non-Motorized Transportation Plan Map

APPENDIX B

BASELINE TRAFFIC COUNTS (EXISTING YEAR AND OPENING YEAR)

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley AM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 1

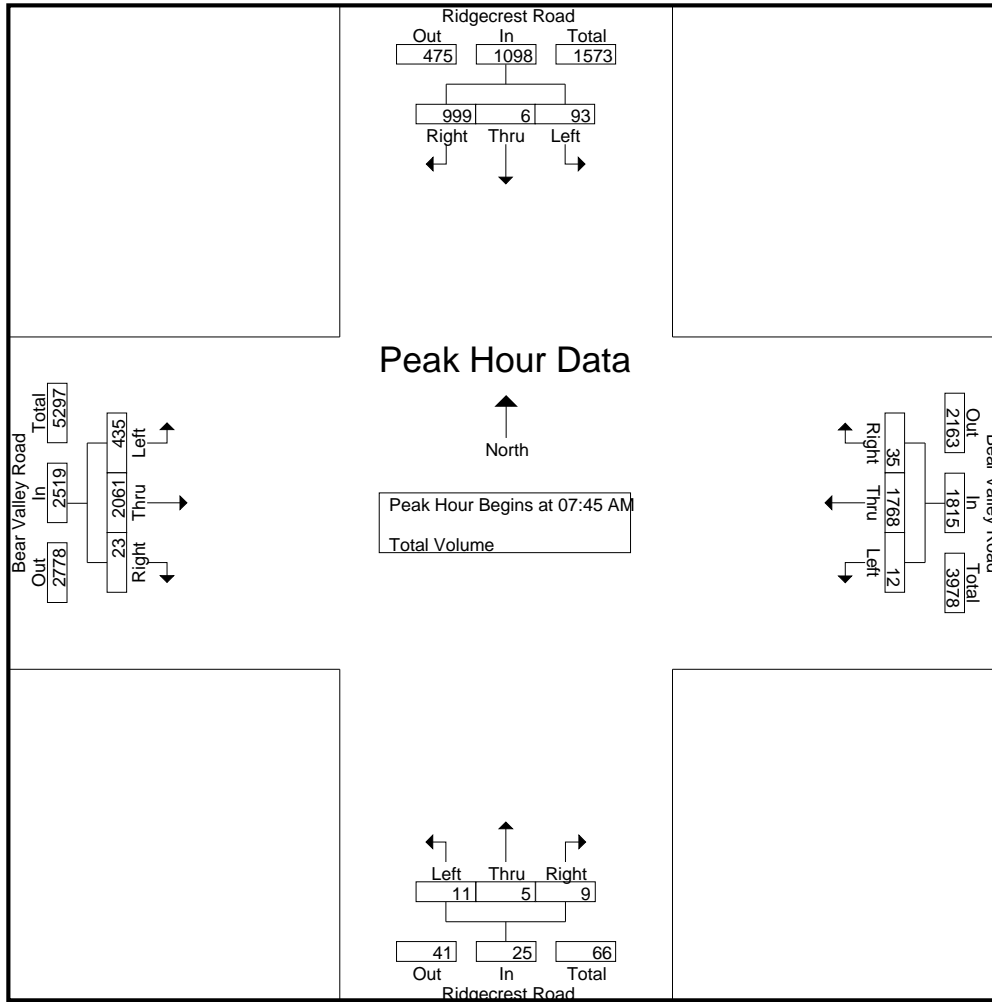
Groups Printed- Total Volume

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	26	0	194	220	3	338	5	346	2	2	1	5	70	264	1	335	906
07:15 AM	17	1	246	264	0	394	5	399	2	0	3	5	66	312	1	379	1047
07:30 AM	21	0	224	245	2	395	8	405	0	0	2	2	73	471	2	546	1198
07:45 AM	32	4	251	287	4	488	6	498	3	1	1	5	115	633	8	756	1546
Total	96	5	915	1016	9	1615	24	1648	7	3	7	17	324	1680	12	2016	4697
08:00 AM	16	2	234	252	5	439	9	453	3	0	3	6	109	488	6	603	1314
08:15 AM	23	0	263	286	0	411	10	421	2	3	2	7	106	500	5	611	1325
08:30 AM	22	0	251	273	3	430	10	443	3	1	3	7	105	440	4	549	1272
08:45 AM	17	1	266	284	5	500	14	519	2	1	5	8	121	488	5	614	1425
Total	78	3	1014	1095	13	1780	43	1836	10	5	13	28	441	1916	20	2377	5336
Grand Total	174	8	1929	2111	22	3395	67	3484	17	8	20	45	765	3596	32	4393	10033
Apprch %	8.2	0.4	91.4		0.6	97.4	1.9		37.8	17.8	44.4		17.4	81.9	0.7		
Total %	1.7	0.1	19.2	21	0.2	33.8	0.7	34.7	0.2	0.1	0.2	0.4	7.6	35.8	0.3	43.8	

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	32	4	251	287	4	488	6	498	3	1	1	5	115	633	8	756	1546
08:00 AM	16	2	234	252	5	439	9	453	3	0	3	6	109	488	6	603	1314
08:15 AM	23	0	263	286	0	411	10	421	2	3	2	7	106	500	5	611	1325
08:30 AM	22	0	251	273	3	430	10	443	3	1	3	7	105	440	4	549	1272
Total Volume	93	6	999	1098	12	1768	35	1815	11	5	9	25	435	2061	23	2519	5457
% App. Total	8.5	0.5	91		0.7	97.4	1.9		44	20	36		17.3	81.8	0.9		
PHF	.727	.375	.950	.956	.600	.906	.875	.911	.917	.417	.750	.893	.946	.814	.719	.833	.882

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley AM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				08:00 AM				07:45 AM			
+0 mins.	32	4	251	287	5	439	9	453	3	0	3	6	115	633	8	756
+15 mins.	16	2	234	252	0	411	10	421	2	3	2	7	109	488	6	603
+30 mins.	23	0	263	286	3	430	10	443	3	1	3	7	106	500	5	611
+45 mins.	22	0	251	273	5	500	14	519	2	1	5	8	105	440	4	549
Total Volume	93	6	999	1098	13	1780	43	1836	10	5	13	28	435	2061	23	2519
% App. Total	8.5	0.5	91		0.7	96.9	2.3		35.7	17.9	46.4		17.3	81.8	0.9	
PHF	.727	.375	.950	.956	.650	.890	.768	.884	.833	.417	.650	.875	.946	.814	.719	.833

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley PM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 1

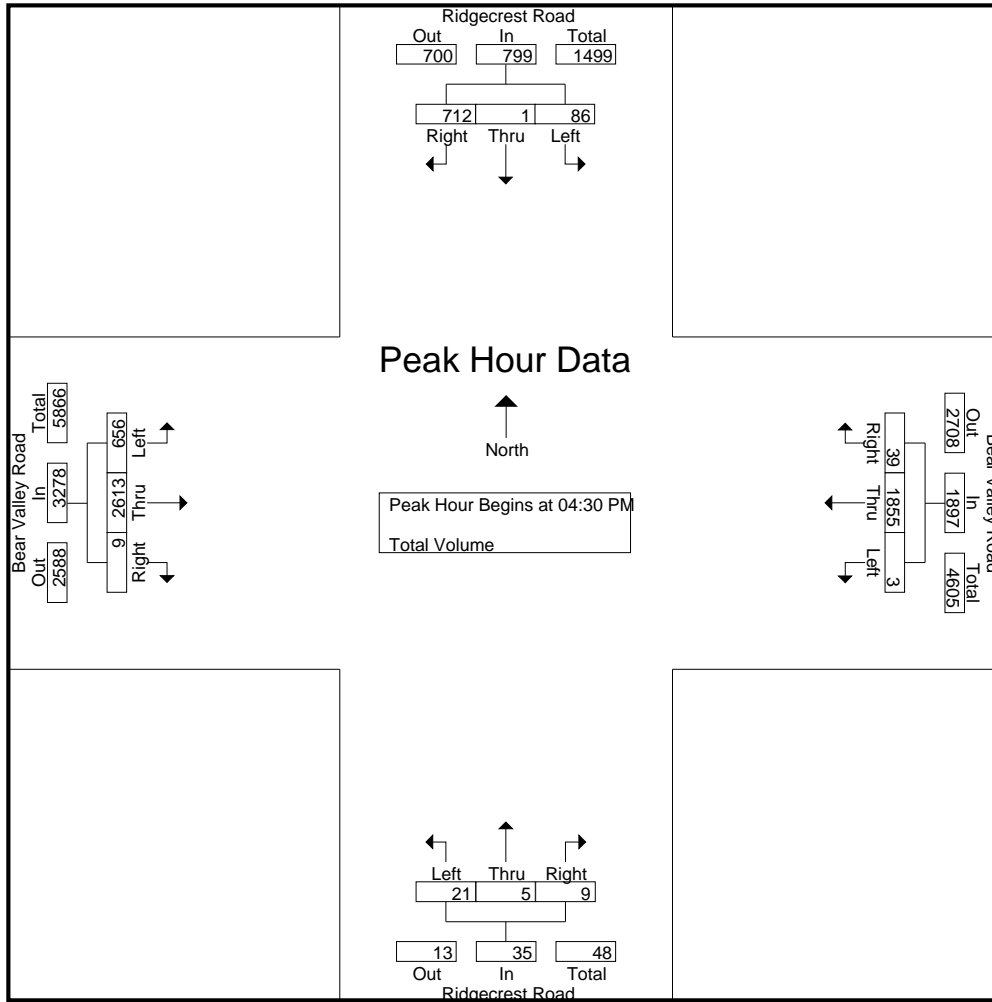
Groups Printed- Total Volume

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	14	0	269	283	2	447	8	457	4	2	3	9	155	612	3	770	1519
04:15 PM	20	0	208	228	1	479	6	486	4	0	2	6	159	549	0	708	1428
04:30 PM	25	1	191	217	0	471	11	482	3	0	0	3	163	618	4	785	1487
04:45 PM	20	0	170	190	2	420	8	430	4	1	2	7	171	589	3	763	1390
Total	79	1	838	918	5	1817	33	1855	15	3	7	25	648	2368	10	3026	5824
05:00 PM	17	0	182	199	0	458	16	474	10	3	5	18	158	685	1	844	1535
05:15 PM	24	0	169	193	1	506	4	511	4	1	2	7	164	721	1	886	1597
05:30 PM	18	0	149	167	1	446	6	453	1	4	1	6	168	655	5	828	1454
05:45 PM	20	0	143	163	0	411	12	423	0	2	0	2	178	628	2	808	1396
Total	79	0	643	722	2	1821	38	1861	15	10	8	33	668	2689	9	3366	5982
Grand Total	158	1	1481	1640	7	3638	71	3716	30	13	15	58	1316	5057	19	6392	11806
Apprch %	9.6	0.1	90.3		0.2	97.9	1.9		51.7	22.4	25.9		20.6	79.1	0.3		
Total %	1.3	0	12.5	13.9	0.1	30.8	0.6	31.5	0.3	0.1	0.1	0.5	11.1	42.8	0.2	54.1	

Start Time	Ridgecrest Road Southbound				Bear Valley Road Westbound				Ridgecrest Road Northbound				Bear Valley Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	25	1	191	217	0	471	11	482	3	0	0	3	163	618	4	785	1487
04:45 PM	20	0	170	190	2	420	8	430	4	1	2	7	171	589	3	763	1390
05:00 PM	17	0	182	199	0	458	16	474	10	3	5	18	158	685	1	844	1535
05:15 PM	24	0	169	193	1	506	4	511	4	1	2	7	164	721	1	886	1597
Total Volume	86	1	712	799	3	1855	39	1897	21	5	9	35	656	2613	9	3278	6009
% App. Total	10.8	0.1	89.1		0.2	97.8	2.1		60	14.3	25.7		20	79.7	0.3		
PHF	.860	.250	.932	.921	.375	.917	.609	.928	.525	.417	.450	.486	.959	.906	.563	.925	.941

City of Victorville
 N/S: Ridgecrest Road
 E/W: Bear Valley Road
 Weather: Clear

File Name : VIC_Ridgecrest_Bear Valley PM
 Site Code : 99919745
 Start Date : 10/29/2019
 Page No : 2

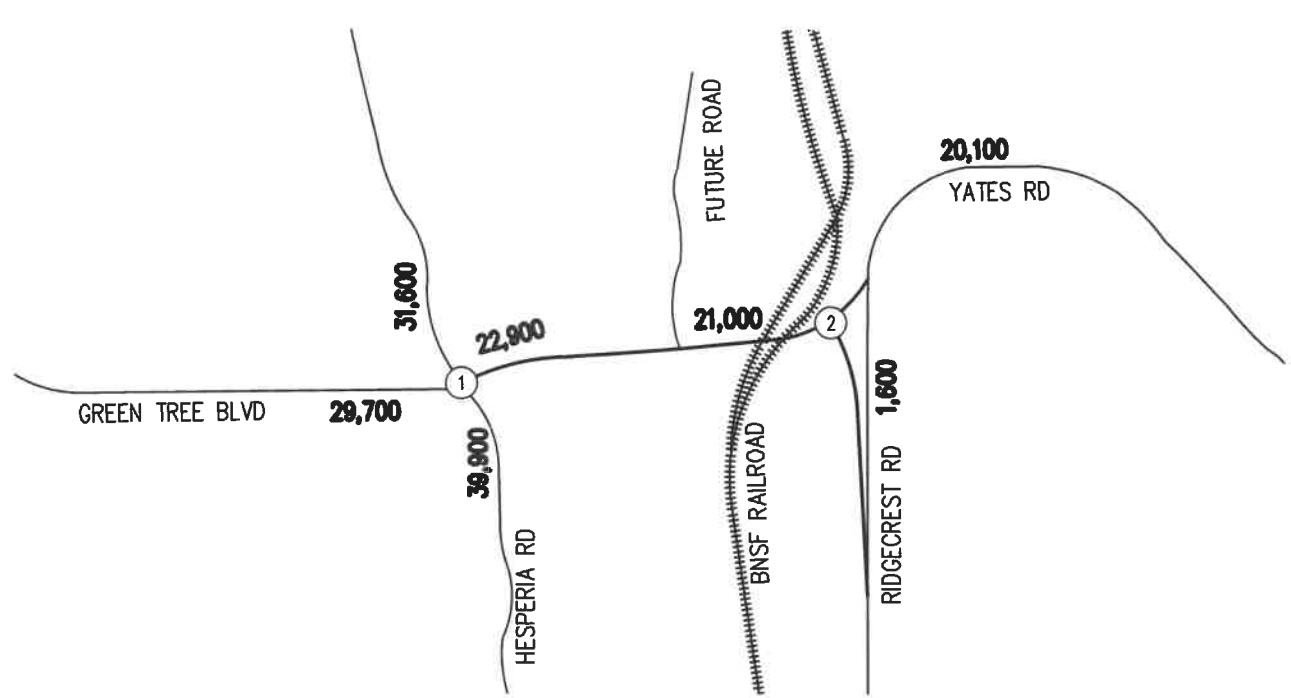


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:45 PM				05:00 PM			
+0 mins.	14	0	269	283	0	471	11	482	4	1	2	7	158	685	1	844
+15 mins.	20	0	208	228	2	420	8	430	10	3	5	18	164	721	1	886
+30 mins.	25	1	191	217	0	458	16	474	4	1	2	7	168	655	5	828
+45 mins.	20	0	170	190	1	506	4	511	1	4	1	6	178	628	2	808
Total Volume	79	1	838	918	3	1855	39	1897	19	9	10	38	668	2689	9	3366
% App. Total	8.6	0.1	91.3		0.2	97.8	2.1		50	23.7	26.3		19.8	79.9	0.3	
PHF	.790	.250	.779	.811	.375	.917	.609	.928	.475	.563	.500	.528	.938	.932	.450	.950

1: GREEN TREE BLVD/HESPERIA RD	
↖ 110/130 ↓ 740/920 ↘ 300/290	↖ 280/330 ← 860/710 ↘ 230/170
50/110 ↘ 530/830 → 150/150 ↘	↘ 100/180 ↑ 680/910 ↘ 120/240

2: GREEN TREE BLVD/RIDGECREST RD	
	← 1190/870 ↘ 30/20
600/1130 → 370/420 ↘	↘ 300/410 20/30 ↘



LEGEND
 XX/XX – AM/PM TRAFFIC VOLUME
 XX,XXX – AADT TRAFFIC VOLUME
 ——— – PROPOSED PROJECT ALIGNMENT

Hall & Foreman, Inc.
 Engineering • Surveying • Planning
 14297 Cajon St., Suite 101 Victorville, CA., 92392-2335
 Phn. 760-524-9100 Fax. 760-524-9101









INTERIM YEAR 2025 WITH GREEN TREE
 BOULEVARD BRIDGE AADT AND TRAFFIC VOLUMES
 GREEN TREE BOULEVARD BRIDGE
 CITY OF VICTORVILLE

EXHIBIT
 E

Drawing Name: V:\140029\Eng\140029-000\Exhibit01 TRAFFIC02 FIGURES\EXHIBIT E.dwg
 Last Created: Jan 03, 2014 - 4:50pm by: TManuz










HCM 2010 Signalized Intersection Capacity Analysis
 2: RIDGECREST RD & GREEN TREE BLVD

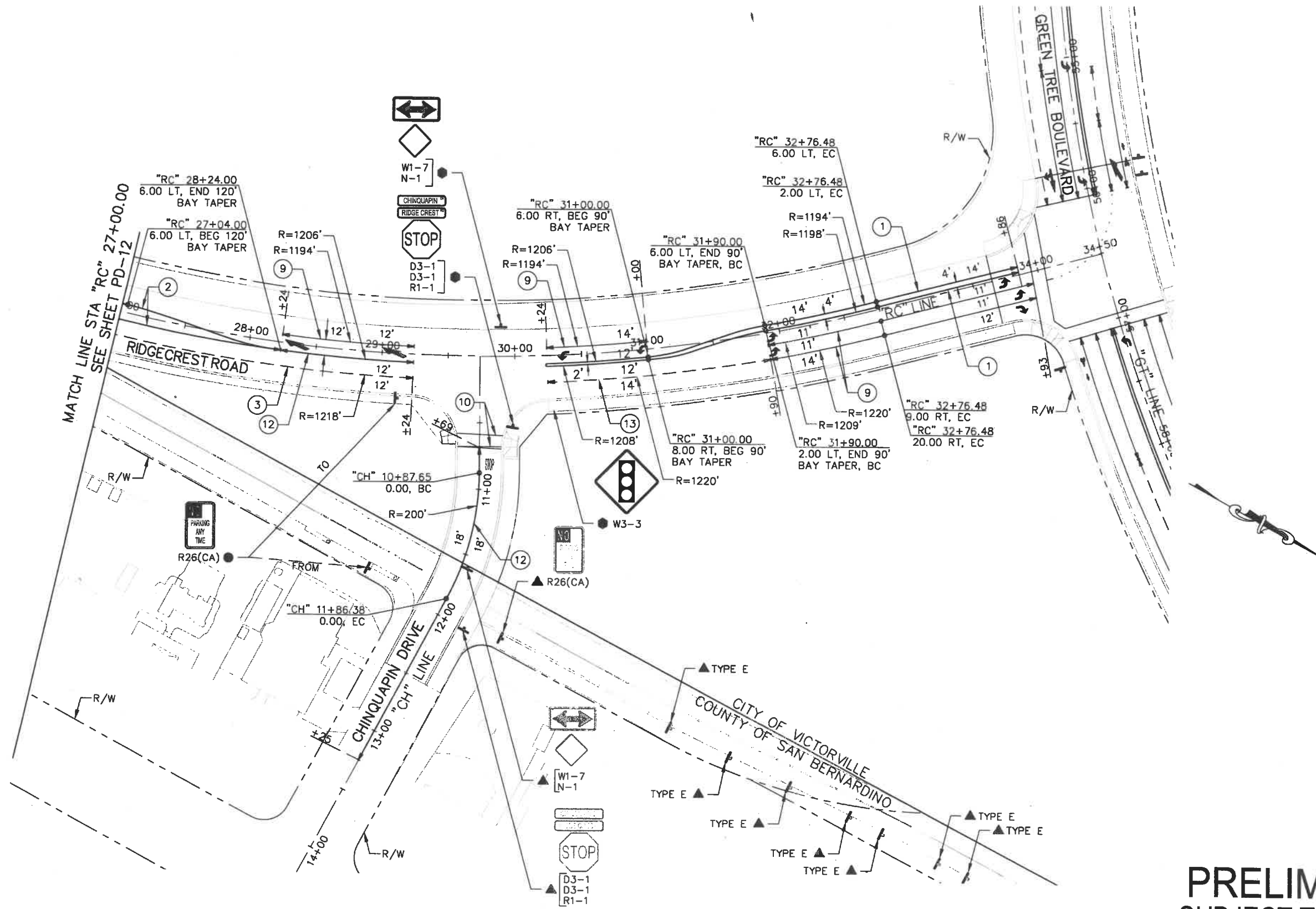
9/4/2014

									
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	1	1	1	1	2	2	1		
Volume (vph)	10	600	370	30	1190	300	20		
Movement Number		2	12	1	6	3	18		
Initial Queue, veh		0	0	0	0	0	0		
Ped-Bike Adj. Factor (A_pbT)			1.00	1.00		1.00	1.00		
Parking, Bus Adj. Factors		1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Sat. Flow Rate, veh/h/ln		1810	1810	1810	1810	1810	1810		
Lanes		1	1	1	2	2	1		
Lane Assignment									
Capacity, veh/h		1213	1031	68	2556	637	293		
Proportion Arriving On Green		0.67	0.67	0.04	0.74	0.19	0.19		
Movement Delay, s/veh		10.9	9.2	62.1	6.6	47.0	40.7		
Movement LOS		B	A	E	A	D	D		
Approach Volume, veh/h		1078			1356	356			
Approach Delay, s/veh		10.2			8.0	46.6			
Approach LOS		B			A	D			
Timer:									
		1	2	3	4	5	6	7	8
Assigned Phase		1	2				6		8
Case No		2.0	7.0				4.0		9.0
Phase Duration (G+Y+Rc), s		8.78	84.98				93.76		27.00
Change Period (Y+Rc), s		4.00	4.00				4.00		4.00
Max. Allowable Headway (MAH), s		3.71	4.75				4.75		3.73
Maximum Green Setting (Gmax), s		7.10	81.90				89.00		23.00
Max. Queue Clearance Time (g_c+1), s		4.29	25.20				21.37		12.83
Green Extension Time (g_e), s		0.01	26.23				29.04		0.88
Probability of Phase Call (p_c)		0.673	1.000				1.000		1.000
Probability of Max Out (p_x)		1.000	0.288				0.222		0.016
Left-Turn Movement Data									
Assigned Movement		1							3
Mvmt. Sat Flow, veh/h		1723.36							3343.31
Through Movement Data									
Assigned Movement			2				6		
Mvmt. Sat Flow, veh/h			1809.52				3528.57		
Right-Turn Movement Data									
Assigned Movement			12				16		18
Mvmt. Sat Flow, veh/h			1538.10				0.00		1538.10
Left Lane Group Data									
Assigned Movement		1	0	0	0	0	0	0	3
Lane Assignment		L (Prot)							L
Lanes in Group		1	0	0	0	0	0	0	2
Group Volume (v), veh/h		33.3	0.0	0.0	0.0	0.0	0.0	0.0	333.3
Group Sat. Flow (s), veh/h/ln		1723.4	0.0	0.0	0.0	0.0	0.0	0.0	1671.7
Queue Serve Time (g_s), s		2.3	0.0	0.0	0.0	0.0	0.0	0.0	10.8
Cycle Queue Clear Time (g_c), s		2.3	0.0	0.0	0.0	0.0	0.0	0.0	10.8

HCM 2010 Signalized Intersection Capacity Analysis
 2: RIDGECREST RD & GREEN TREE BLVD

9/4/2014

									
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↓	↑	↗	↖	↑↑	↖↗	↗		
Volume (vph)	10	1130	420	20	870	410	30		
Movement Number		2	12	1	6	3	18		
Initial Queue, veh		0	0	0	0	0	0		
Ped-Bike Adj. Factor (A_pbT)			1.00	1.00		1.00	1.00		
Parking, Bus Adj. Factors		1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Sat. Flow Rate, veh/h/ln		1810	1810	1810	1810	1810	1810		
Lanes		1	1	1	2	2	1		
Lane Assignment									
Capacity, veh/h		1344	1142	30	2727	470	216		
Proportion Arriving On Green		0.74	0.74	0.02	0.79	0.14	0.14		
Movement Delay, s/veh		25.1	6.0	88.7	3.7	86.2	47.2		
Movement LOS		C	A	F	A	F	D		
Approach Volume, veh/h		1722			989	489			
Approach Delay, s/veh		19.9			5.6	83.5			
Approach LOS		B			A	F			
Timer:		1	2	3	4	5	6	7	8
Assigned Phase		1	2				6		8
Case No		2.0	7.0				4.0		9.0
Phase Duration (G+Y+Rc), s		6.10	93.81				99.91		21.00
Change Period (Y+Rc), s		4.00	4.00				4.00		4.00
Max. Allowable Headway (MAH), s		3.71	4.77				4.77		3.73
Maximum Green Setting (Gmax), s		4.00	90.20				95.00		17.00
Max. Queue Clearance Time (g_c+I1), s		3.55	72.50				11.78		18.39
Green Extension Time (g_e), s		0.00	14.78				46.94		0.00
Probability of Phase Call (p_c)		0.526	1.000				1.000		1.000
Probability of Max Out (p_x)		1.000	0.866				0.419		1.000
Left-Turn Movement Data									
Assigned Movement		1							3
Mvmt. Sat Flow, veh/h		1723.36							3343.31
Through Movement Data									
Assigned Movement			2				6		
Mvmt. Sat Flow, veh/h			1809.52				3528.57		
Right-Turn Movement Data									
Assigned Movement			12				16		18
Mvmt. Sat Flow, veh/h			1538.10				0.00		1538.10
Left Lane Group Data									
Assigned Movement		1	0	0	0	0	0	0	3
Lane Assignment		L (Prot)							L
Lanes in Group		1	0	0	0	0	0	0	2
Group Volume (v), veh/h		22.2	0.0	0.0	0.0	0.0	0.0	0.0	455.6
Group Sat. Flow (s), veh/h/ln		1723.4	0.0	0.0	0.0	0.0	0.0	0.0	1671.7
Queue Serve Time (g_s), s		1.6	0.0	0.0	0.0	0.0	0.0	0.0	16.4
Cycle Queue Clear Time (g_c), s		1.6	0.0	0.0	0.0	0.0	0.0	0.0	16.4



**PRELIMINARY
SUBJECT TO CHANGE**

REVISION	BY	DATE

DESIGNED: JOSE OSTDIEK	RECORD DRAWING DATE:
DRAWN: JEREMY SCOTT	SCALE: HORIZ: 1"=40' VERT: -
CHECKED: EDUARDO SIMONSEN	PROJECT NO. 2040 CAD FILE: 2040-SH1213-PD13.dwg

**CITY OF VICTORVILLE
ENGINEERING DIVISION**
14343 CIVIC DRIVE,
VICTORVILLE, CA 92392
(760) 955-5158



**DE DOKKEN
ENGINEERING**
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

JOSE J. OSTDIEK, REGISTERED CIVIL ENGINEER DATE



**GREEN TREE BOULEVARD
EXTENSION**

**PAVEMENT DELINEATION
PLAN**

213 of 273
PD - 13
DWG. NO.

File Name: P:\2040_Green Tree_S01\2040-SH1213-PD13.dwg Last Update: 3/22/2019 4:14:48 PM
 User: Hrabello Plot Date: 03/25/2019 9:34:22 AM

APPENDIX C

HCM ANALYSIS WORKSHEETS

EXISTING CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	73.8
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.055

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	93	6	999	435	2061	23	12	1768	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	11	5	9	93	6	999	435	2061	23	12	1768	35
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	26	2	283	123	584	7	3	501	10
Total Analysis Volume [veh/h]	12	6	10	105	7	1133	493	2337	26	14	2005	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.45	0.31	0.48	0.49	0.01	0.42	0.42
s, saturation flow rate [veh/h]	963	1085	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	331	385	1471	401	1834	958	27	1086	565
d1, Uniform Delay [s]	26.05	28.84	15.89	37.50	17.70	17.79	48.78	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.47	0.11	0.36	0.11	0.17	0.50
l, 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]	0.50	1.90	3.95	122.50	1.14	6.89	14.98	109.89	122.44
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	0.29	0.77	1.23	0.84	0.85	0.52	1.24	1.24
d, Delay for Lane Group [s/veh]	26.55	30.74	19.84	160.00	18.83	24.68	63.76	142.94	155.49
Lane Group LOS	C	C	B	F	B	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.37	9.80	22.87	12.73	14.96	0.45	28.73	31.85
50th-Percentile Queue Length [ft/ln]	13.14	59.21	244.91	571.76	318.27	373.99	11.17	718.25	796.17
95th-Percentile Queue Length [veh/ln]	0.95	4.26	14.93	34.32	18.58	21.30	0.80	42.66	46.84
95th-Percentile Queue Length [ft/ln]	23.65	106.58	373.24	857.94	464.55	532.57	20.10	1066.58	1171.03

Movement, Approach, & Intersection Results

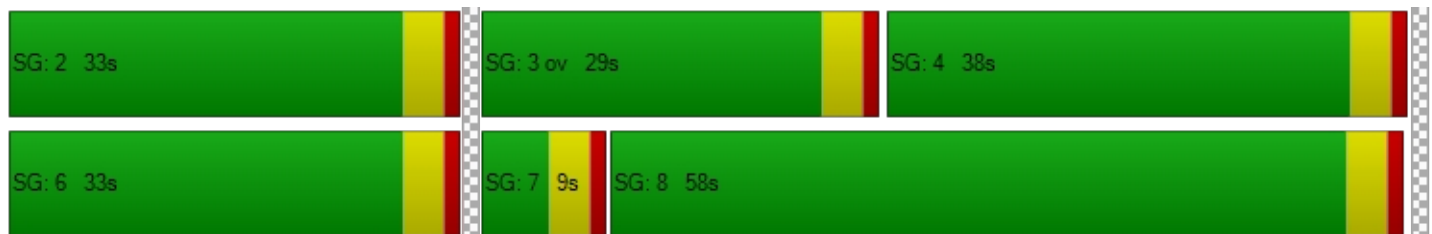
d_M, Delay for Movement [s/veh]	26.55	26.55	26.55	30.74	30.74	19.84	160.00	20.80	24.68	63.76	147.07	155.49
Movement LOS	C	C	C	C	C	B	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	26.55			20.82			44.87			146.67		
Approach LOS	C			C			D			F		
d_I, Intersection Delay [s/veh]	73.82											
Intersection LOS	E											
Intersection V/C	1.055											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			680		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			21.78		
I_b,int, Bicycle LOS Score for Intersection	1.606			3.614			3.130			2.692		
Bicycle LOS	A			D			C			B		

Sequence

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



**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	142.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.122

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	21	5	9	86	1	712	656	2613	9	3	1855	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	21	5	9	86	1	712	656	2613	9	3	1855	39
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	24	0	202	186	741	3	1	526	11
Total Analysis Volume [veh/h]	24	6	10	98	1	807	744	2963	10	3	2103	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	34	58	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	63	30	59	59	0	29	29
g / C, Green / Cycle	0.29	0.29	0.63	0.30	0.59	0.59	0.00	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.08	0.32	0.46	0.61	0.61	0.00	0.44	0.44
s, saturation flow rate [veh/h]	1007	1184	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	350	415	1595	481	1874	983	8	929	483
d1, Uniform Delay [s]	27.66	27.77	10.05	35.00	20.76	20.76	49.58	35.50	35.50
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.50	0.11	0.26	0.50
l, 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]	0.66	1.35	1.15	256.48	22.49	40.22	24.69	236.40	245.54
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	0.11	0.24	0.51	1.55	1.04	1.04	0.36	1.52	1.52
d, Delay for Lane Group [s/veh]	28.32	29.12	11.20	291.49	43.25	60.98	74.28	271.90	281.04
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.84	1.99	4.63	45.16	23.80	29.80	0.13	41.09	43.93
50th-Percentile Queue Length [ft/ln]	21.12	49.82	115.85	1129.08	595.03	744.90	3.23	1027.20	1098.37
95th-Percentile Queue Length [veh/ln]	1.52	3.59	8.16	69.83	32.84	40.10	0.23	63.52	67.60
95th-Percentile Queue Length [ft/ln]	38.01	89.67	204.11	1745.77	821.04	1002.61	5.81	1587.92	1689.91

Movement, Approach, & Intersection Results

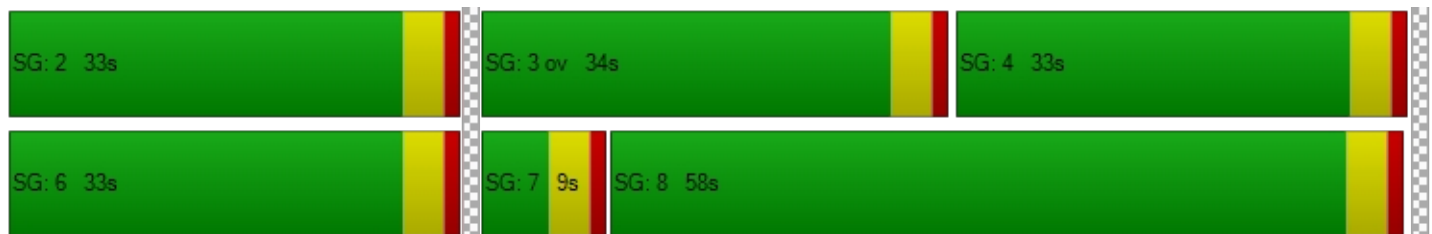
d_M, Delay for Movement [s/veh]	28.32	28.32	28.32	29.12	29.12	11.20	291.49	49.32	60.98	74.28	274.91	281.04
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	28.32			13.16			97.82			274.75		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	141.99											
Intersection LOS	F											
Intersection V/C	1.122											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			580		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.21		
I_b,int, Bicycle LOS Score for Intersection	1.626			3.055			3.604			2.742		
Bicycle LOS	A			C			D			B		

Sequence

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



EP CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgcrest/Bear Valley**

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 75.6
 Level Of Service: E
 Volume to Capacity (v/c): 1.070

Intersection Setup

Name	Ridgcrest			Ridgcrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgcrest			Ridgcrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	103	6	1047	450	2061	23	12	1768	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	11	5	9	103	6	1047	450	2061	23	12	1768	38
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	29	2	297	128	584	7	3	501	11
Total Analysis Volume [veh/h]	12	6	10	117	7	1187	510	2337	26	14	2005	43
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.47	0.32	0.48	0.49	0.01	0.42	0.42
s, saturation flow rate [veh/h]	876	1043	2532	1603	3204	1674	1603	3204	1665
c, Capacity [veh/h]	306	373	1471	401	1834	958	27	1086	564
d1, Uniform Delay [s]	26.24	29.50	16.53	37.50	17.70	17.79	48.78	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.36	0.11	0.17	0.50
l, 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	2.38	4.84	140.65	1.13	6.89	14.98	110.82	123.38
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	0.09	0.33	0.81	1.27	0.84	0.85	0.52	1.24	1.24
d, Delay for Lane Group [s/veh]	26.83	31.88	21.37	178.15	18.83	24.68	63.76	143.87	156.43
Lane Group LOS	C	C	C	F	B	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.70	10.79	24.89	12.73	14.96	0.45	28.87	31.97
50th-Percentile Queue Length [ft/ln]	13.25	67.45	269.64	622.27	318.24	374.07	11.17	721.74	799.26
95th-Percentile Queue Length [veh/ln]	0.95	4.86	16.17	37.54	18.58	21.31	0.80	42.88	47.05
95th-Percentile Queue Length [ft/ln]	23.84	121.41	404.28	938.57	464.52	532.66	20.10	1072.09	1176.17

Movement, Approach, & Intersection Results

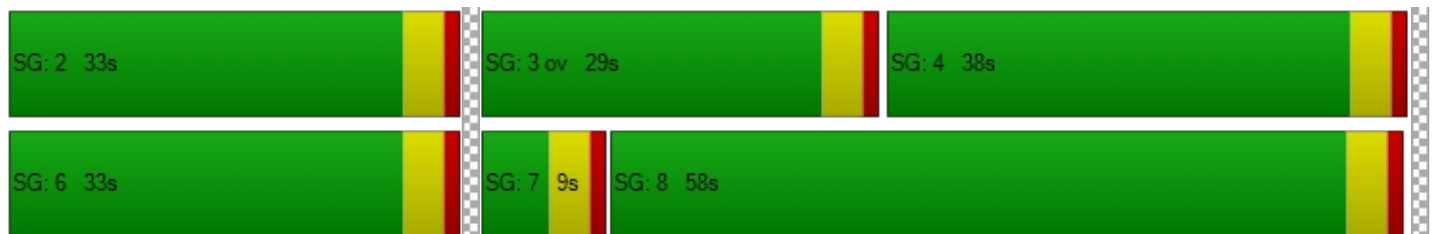
d_M, Delay for Movement [s/veh]	26.83	26.83	26.83	31.88	31.88	21.37	178.15	20.80	24.68	63.76	147.99	156.43
Movement LOS	C	C	C	C	C	C	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	26.83			22.36			48.77			147.59		
Approach LOS	C			C			D			F		
d_I, Intersection Delay [s/veh]	75.63											
Intersection LOS	E											
Intersection V/C	1.070											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	580	580	1080	680
d_b, Bicycle Delay [s]	25.21	25.21	10.58	21.78
I_b,int, Bicycle LOS Score for Intersection	1.606	3.723	3.140	2.694
Bicycle LOS	A	D	C	B

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

Control Type:	Two-way stop	Delay (sec / veh):	20.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.152

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (North)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (North)	
Base Volume Input [veh/h]	17	267	660	12	38	29
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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]	17	267	660	12	38	29
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	73	179	3	10	8
Total Analysis Volume [veh/h]	18	290	717	13	41	32
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	0.02	0.00	0.01	0.00	0.15	0.05
d_M, Delay for Movement [s/veh]	9.23	0.00	0.00	0.00	20.81	13.21
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.74	0.74
95th-Percentile Queue Length [ft/ln]	1.58	0.00	0.00	0.00	18.62	18.62
d_A, Approach Delay [s/veh]	0.54		0.00		17.48	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.30					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)**

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):	0.043

Intersection Setup

Name	Ridgecrest		Ridgecrest			
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	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	Ridgecrest		Ridgecrest			
Base Volume Input [veh/h]	0	284	688	0	0	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	284	688	0	0	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	71	172	0	0	7
Total Analysis Volume [veh/h]	0	284	688	0	0	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			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	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	16.92	10.77
Movement LOS		A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.13	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	3.36	3.36
d_A, Approach Delay [s/veh]	0.00		0.00		10.77	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]			0.30			
Intersection LOS			B			

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 154.4
 Level Of Service: F
 Volume to Capacity (v/c): 1.165

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	21	5	9	92	1	740	704	2613	9	3	1855	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	21	5	9	92	1	740	704	2613	9	3	1855	49
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	26	0	210	200	741	3	1	526	14
Total Analysis Volume [veh/h]	24	6	10	104	1	839	798	2963	10	3	2103	56
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	35	58	0	9	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	64	31	59	59	0	28	28
g / C, Green / Cycle	0.29	0.29	0.64	0.31	0.59	0.59	0.00	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.33	0.50	0.61	0.61	0.00	0.44	0.44
s, saturation flow rate [veh/h]	978	1176	2532	1603	3204	1680	1603	3204	1661
c, Capacity [veh/h]	341	412	1620	497	1875	983	8	898	466
d1, Uniform Delay [s]	27.85	27.99	9.71	34.51	20.74	20.74	49.58	35.98	35.98
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.50	0.11	0.26	0.50
l, 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]	0.70	1.48	1.19	282.14	22.28	40.04	24.69	264.31	273.78
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	0.12	0.25	0.52	1.61	1.04	1.04	0.36	1.58	1.59
d, Delay for Lane Group [s/veh]	28.55	29.48	10.90	316.65	43.03	60.78	74.28	300.29	309.76
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.85	2.13	4.74	50.17	23.76	29.77	0.13	43.24	46.04
50th-Percentile Queue Length [ft/ln]	21.34	53.32	118.38	1254.16	594.03	744.15	3.23	1080.91	1151.03
95th-Percentile Queue Length [veh/ln]	1.54	3.84	8.30	77.96	32.78	40.05	0.23	67.21	71.28
95th-Percentile Queue Length [ft/ln]	38.42	95.97	207.60	1949.05	819.48	1001.29	5.81	1680.32	1781.98

Movement, Approach, & Intersection Results

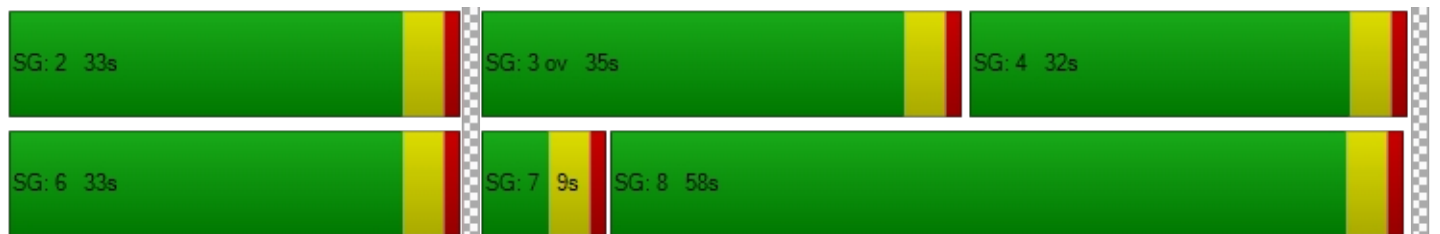
d_M, Delay for Movement [s/veh]	28.55	28.55	28.55	29.48	29.48	10.90	316.65	49.10	60.78	74.28	303.37	309.76
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	28.55			12.97			105.75			303.21		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	154.36											
Intersection LOS	F											
Intersection V/C	1.165											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			560		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.92		
I_b,int, Bicycle LOS Score for Intersection	1.626			3.117			3.634			2.749		
Bicycle LOS	A			C			D			B		

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

Control Type:	Two-way stop	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.094

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (North)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (North)	
Base Volume Input [veh/h]	57	421	495	38	22	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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]	57	421	495	38	22	17
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	114	135	10	6	5
Total Analysis Volume [veh/h]	62	458	538	41	24	18
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	0.06	0.00	0.01	0.00	0.09	0.03
d_M, Delay for Movement [s/veh]	8.88	0.00	0.00	0.00	20.42	11.47
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.20	0.00	0.00	0.00	0.40	0.40
95th-Percentile Queue Length [ft/ln]	5.00	0.00	0.00	0.00	10.03	10.03
d_A, Approach Delay [s/veh]	1.06		0.00		16.58	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.09					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	0	478	512	0	0	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	478	512	0	0	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	120	128	0	0	4
Total Analysis Volume [veh/h]	0	478	512	0	0	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			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	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	15.50	9.96
Movement LOS		A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	1.75	1.75
d_A, Approach Delay [s/veh]	0.00		0.00		9.96	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	A					

OPENING YEAR CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	83.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.089

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	97	6	1039	453	2144	24	12	1839	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	11	5	9	97	6	1039	453	2144	24	12	1839	36
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	27	2	295	128	608	7	3	521	10
Total Analysis Volume [veh/h]	12	6	10	110	7	1178	514	2431	27	14	2085	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.47	0.32	0.50	0.51	0.01	0.44	0.44
s, saturation flow rate [veh/h]	927	1068	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	321	380	1471	401	1834	958	27	1086	565
d1, Uniform Delay [s]	26.12	29.11	16.42	37.50	18.39	18.49	48.78	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.38	0.11	0.19	0.50
l, 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]	0.53	2.09	4.67	144.90	1.49	9.32	14.98	131.71	143.08
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	0.09	0.31	0.80	1.28	0.88	0.88	0.52	1.29	1.29
d, Delay for Lane Group [s/veh]	26.66	31.20	21.09	182.40	19.88	27.81	63.76	164.76	176.13
Lane Group LOS	C	C	C	F	B	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.50	10.61	25.36	13.82	16.68	0.45	32.02	35.09
50th-Percentile Queue Length [ft/ln]	13.18	62.58	265.30	634.12	345.60	417.03	11.17	800.55	877.27
95th-Percentile Queue Length [veh/ln]	0.95	4.51	15.95	38.30	19.92	23.38	0.80	47.91	52.10
95th-Percentile Queue Length [ft/ln]	23.73	112.64	398.87	957.58	498.04	584.48	20.10	1197.73	1302.42

Movement, Approach, & Intersection Results

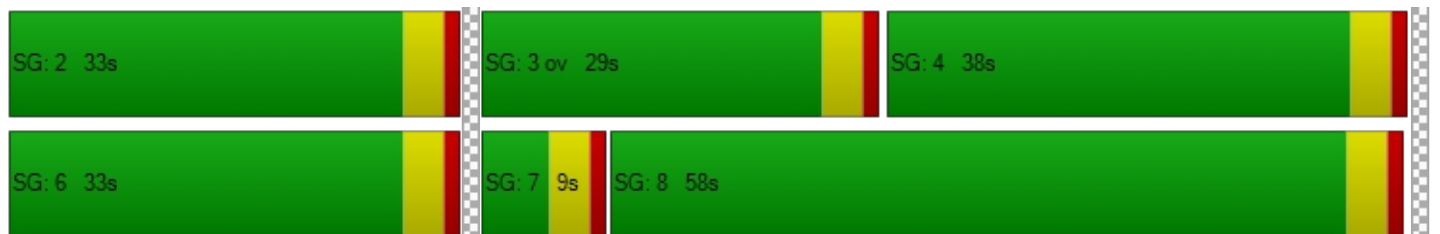
d_M, Delay for Movement [s/veh]	26.66	26.66	26.66	31.20	31.20	21.09	182.40	22.55	27.81	63.76	168.51	176.13
Movement LOS	C	C	C	C	C	C	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	26.66			22.01			50.25			167.97		
Approach LOS	C			C			D			F		
d_I, Intersection Delay [s/veh]	83.61											
Intersection LOS	F											
Intersection V/C	1.089											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			680		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			21.78		
I_b,int, Bicycle LOS Score for Intersection	1.606			3.696			3.194			2.737		
Bicycle LOS	A			D			C			B		

Sequence

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



Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree

Control Type:	Signalized	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.515

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⬅️➡️		⬅️➡️			⬅️➡️	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	300	20	10	600	370	30	1190
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	300	20	10	600	370	30	1190
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	82	5	3	163	101	8	323
Total Analysis Volume [veh/h]	326	22	11	652	402	33	1293
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	65	0	9	26	0	9	26
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	13	13	1	72	72	3	73
g / C, Green / Cycle	0.13	0.13	0.01	0.72	0.72	0.03	0.73
(v / s)_i Volume / Saturation Flow Rate	0.10	0.02	0.01	0.33	0.33	0.02	0.40
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1471	1603	3204
c, Capacity [veh/h]	411	189	23	1207	1055	50	2351
d1, Uniform Delay [s]	42.08	38.27	48.92	6.01	6.02	47.93	5.94
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	0.27	14.76	1.29	1.48	14.04	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.12	0.48	0.47	0.47	0.66	0.55
d, Delay for Lane Group [s/veh]	45.59	38.54	63.68	7.31	7.50	61.97	6.87
Lane Group LOS	D	D	E	A	A	E	A
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.07	0.49	0.37	4.62	4.10	1.00	5.17
50th-Percentile Queue Length [ft/ln]	101.65	12.22	9.14	115.51	102.49	25.11	129.34
95th-Percentile Queue Length [veh/ln]	7.32	0.88	0.66	8.15	7.38	1.81	8.90
95th-Percentile Queue Length [ft/ln]	182.96	21.99	16.44	203.65	184.48	45.20	222.60

Movement, Approach, & Intersection Results

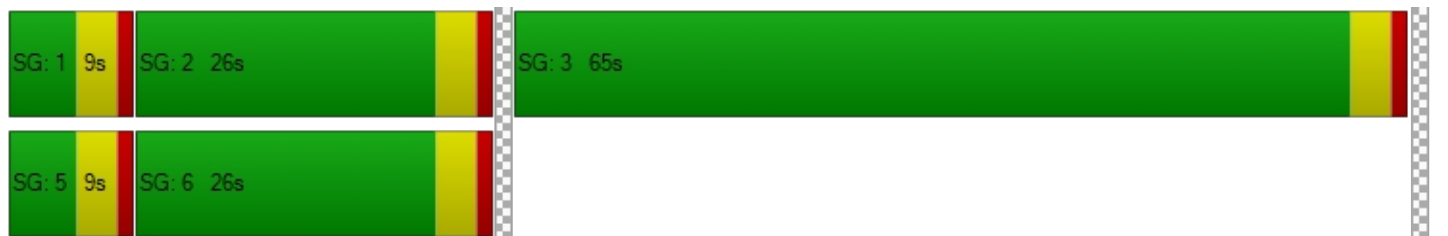
d_M, Delay for Movement [s/veh]	45.59	38.54	63.68	7.34	7.50	61.97	6.87
Movement LOS	D	D	E	A	A	E	A
d_A, Approach Delay [s/veh]	45.15		7.98		8.24		
Approach LOS	D		A		A		
d_I, Intersection Delay [s/veh]	12.83						
Intersection LOS	B						
Intersection V/C	0.515						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.011	5.226
Bicycle LOS	D	F	F

Sequence

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



**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	160.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.168

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	22	5	9	89	1	741	683	2719	9	3	1930	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	5	9	89	1	741	683	2719	9	3	1930	41
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	25	0	210	194	771	3	1	547	12
Total Analysis Volume [veh/h]	25	6	10	101	1	840	774	3083	10	3	2188	46
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	34	58	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	63	30	59	59	0	29	29
g / C, Green / Cycle	0.29	0.29	0.63	0.30	0.59	0.59	0.00	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.33	0.48	0.63	0.63	0.00	0.46	0.46
s, saturation flow rate [veh/h]	994	1186	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	346	415	1595	481	1874	983	8	929	483
d1, Uniform Delay [s]	28.02	27.83	10.24	35.00	20.76	20.76	49.58	35.50	35.50
k, delay calibration	0.50	0.50	0.50	0.50	0.13	0.50	0.11	0.28	0.50
l, 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]	0.70	1.40	1.25	283.95	39.92	54.23	24.69	263.99	272.95
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	0.12	0.25	0.53	1.61	1.08	1.08	0.36	1.58	1.58
d, Delay for Lane Group [s/veh]	28.72	29.24	11.49	318.95	60.68	74.99	74.28	299.49	308.46
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.87	2.06	4.92	48.83	28.34	33.62	0.13	44.65	47.61
50th-Percentile Queue Length [ft/ln]	21.76	51.47	123.09	1220.78	708.44	840.56	3.23	1116.21	1190.26
95th-Percentile Queue Length [veh/ln]	1.57	3.71	8.56	75.92	39.50	46.07	0.23	69.37	73.67
95th-Percentile Queue Length [ft/ln]	39.17	92.64	214.07	1897.91	987.44	1151.82	5.81	1734.35	1841.75

Movement, Approach, & Intersection Results

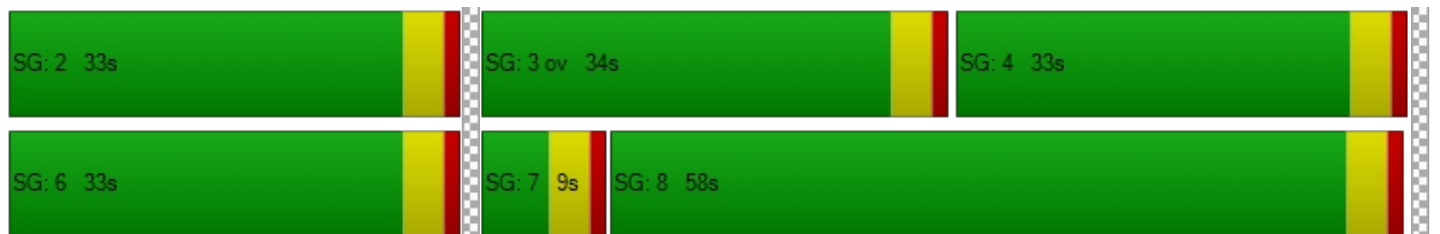
d_M, Delay for Movement [s/veh]	28.72	28.72	28.72	29.24	29.24	11.49	318.95	65.58	74.99	74.28	302.44	308.46
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	28.72			13.41			116.32			302.26		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	160.82											
Intersection LOS	F											
Intersection V/C	1.168											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			580		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.21		
I_b,int, Bicycle LOS Score for Intersection	1.627			3.114			3.686			2.790		
Bicycle LOS	A			C			D			C		

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

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):	0.695

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⬅️➡️		⬅️➡️			⬅️➡️	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	410	30	10	1130	420	20	870
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	410	30	10	1130	420	20	870
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	8	3	307	114	5	236
Total Analysis Volume [veh/h]	446	33	11	1228	457	22	946
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	65	0	9	26	0	9	26
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	17	17	1	68	68	2	69
g / C, Green / Cycle	0.17	0.17	0.01	0.68	0.68	0.02	0.69
(v / s)_i Volume / Saturation Flow Rate	0.14	0.02	0.01	0.51	0.54	0.01	0.30
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1533	1603	3204
c, Capacity [veh/h]	538	247	23	1150	1047	38	2220
d1, Uniform Delay [s]	39.94	35.02	48.92	10.27	10.85	48.30	6.69
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.36	0.24	14.76	4.48	5.98	12.75	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.13	0.48	0.75	0.79	0.57	0.43
d, Delay for Lane Group [s/veh]	43.30	35.26	63.68	14.75	16.83	61.05	7.29
Lane Group LOS	D	D	E	B	B	E	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	5.48	0.70	0.37	11.82	12.26	0.68	3.96
50th-Percentile Queue Length [ft/ln]	137.05	17.39	9.14	295.44	306.52	16.92	99.08
95th-Percentile Queue Length [veh/ln]	9.32	1.25	0.66	17.46	18.00	1.22	7.13
95th-Percentile Queue Length [ft/ln]	233.05	31.30	16.44	436.38	450.09	30.45	178.35

Movement, Approach, & Intersection Results

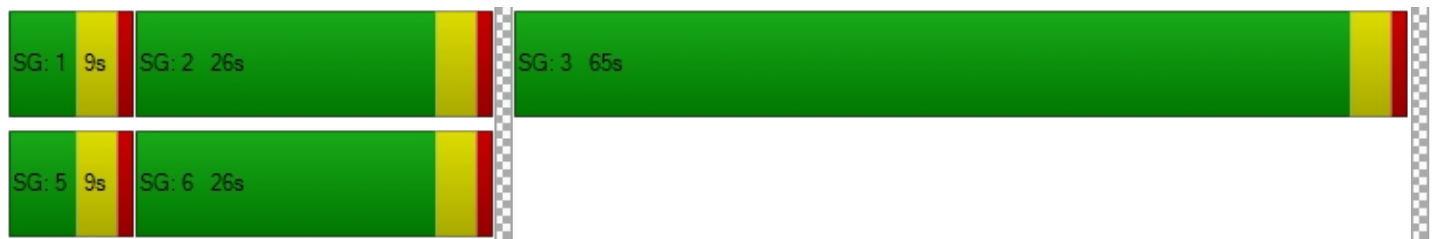
d_M, Delay for Movement [s/veh]	43.30	35.26	63.68	15.37	16.83	61.05	7.29
Movement LOS	D	D	E	B	B	E	A
d_A, Approach Delay [s/veh]	42.75		16.08		8.51		
Approach LOS	D		B		A		
d_I, Intersection Delay [s/veh]	17.81						
Intersection LOS	B						
Intersection V/C	0.695						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.532	4.931
Bicycle LOS	D	F	E

Sequence

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



OPENING YEAR W/ PROJECT CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	84.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.092

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	11	5	9	107	6	1053	457	2144	24	12	1839	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	11	5	9	107	6	1053	457	2144	24	12	1839	39
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	30	2	298	130	608	7	3	521	11
Total Analysis Volume [veh/h]	12	6	10	121	7	1194	518	2431	27	14	2085	44
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.47	0.32	0.50	0.51	0.01	0.44	0.44
s, saturation flow rate [veh/h]	846	1030	2532	1603	3204	1674	1603	3204	1665
c, Capacity [veh/h]	298	370	1471	401	1834	958	27	1086	565
d1, Uniform Delay [s]	26.31	29.73	16.61	37.50	18.39	18.49	48.78	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.38	0.11	0.19	0.50
l, 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]	0.63	2.56	4.98	149.03	1.49	9.32	14.98	132.63	144.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.35	0.81	1.29	0.88	0.88	0.52	1.29	1.29
d, Delay for Lane Group [s/veh]	26.94	32.28	21.59	186.53	19.88	27.81	63.76	165.68	177.10
Lane Group LOS	C	C	C	F	B	C	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.53	2.81	10.92	25.82	13.82	16.68	0.45	32.16	35.22
50th-Percentile Queue Length [ft/ln]	13.29	70.31	273.07	645.61	345.60	417.03	11.17	804.02	880.45
95th-Percentile Queue Length [veh/ln]	0.96	5.06	16.34	39.05	19.92	23.38	0.80	48.13	52.31
95th-Percentile Queue Length [ft/ln]	23.91	126.56	408.57	976.16	498.04	584.48	20.10	1203.29	1307.77

Movement, Approach, & Intersection Results

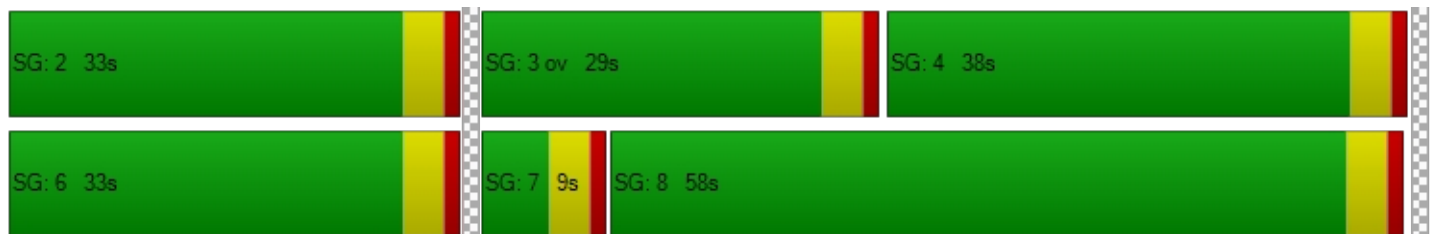
d_M, Delay for Movement [s/veh]	26.94	26.94	26.94	32.28	32.28	21.59	186.53	22.55	27.81	63.76	169.43	177.10
Movement LOS	C	C	C	C	C	C	F	C	C	E	F	F
d_A, Approach Delay [s/veh]	26.94			22.63			51.14			168.90		
Approach LOS	C			C			D			F		
d_I, Intersection Delay [s/veh]	84.22											
Intersection LOS	F											
Intersection V/C	1.092											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			680		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			21.78		
I_b,int, Bicycle LOS Score for Intersection	1.606			3.741			3.196			2.738		
Bicycle LOS	A			D			C			B		

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

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):	0.527

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	ⓁⓇⓇ		ⓁⓇⓇ			ⓁⓇ	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	333	58	10	600	380	42	1190
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	333	58	10	600	380	42	1190
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	90	16	3	163	103	11	323
Total Analysis Volume [veh/h]	362	63	11	652	413	46	1293
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	65	0	9	26	0	9	26
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	15	15	1	70	70	4	72
g / C, Green / Cycle	0.15	0.15	0.01	0.70	0.70	0.04	0.72
(v / s)_i Volume / Saturation Flow Rate	0.12	0.04	0.01	0.34	0.34	0.03	0.40
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1468	1603	3204
c, Capacity [veh/h]	452	208	23	1174	1024	59	2309
d1, Uniform Delay [s]	41.35	38.22	48.92	6.90	6.90	47.73	6.55
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.34	0.81	14.76	1.43	1.64	18.84	0.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.30	0.48	0.48	0.48	0.77	0.56
d, Delay for Lane Group [s/veh]	44.69	39.04	63.68	8.33	8.55	66.57	7.53
Lane Group LOS	D	D	E	A	A	E	A
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.48	1.42	0.37	5.18	4.59	1.44	5.58
50th-Percentile Queue Length [ft/ln]	112.09	35.55	9.14	129.61	114.75	36.05	139.60
95th-Percentile Queue Length [veh/ln]	7.96	2.56	0.66	8.92	8.10	2.60	9.46
95th-Percentile Queue Length [ft/ln]	198.90	63.99	16.44	222.96	202.59	64.90	236.49

Movement, Approach, & Intersection Results

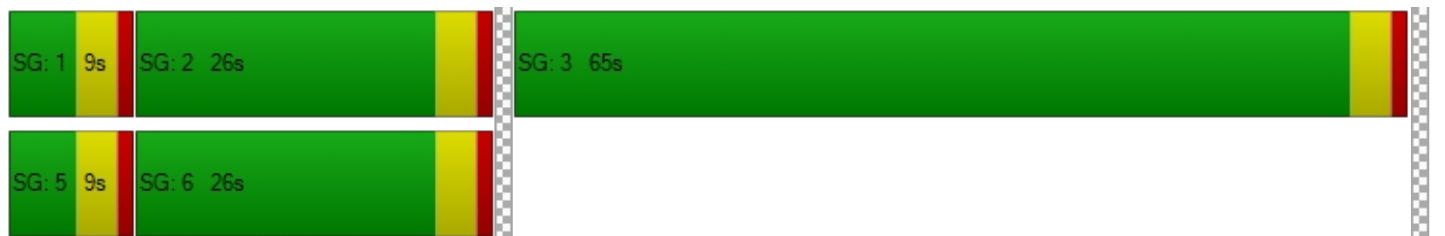
d_M, Delay for Movement [s/veh]	44.69	39.04	63.68	8.36	8.55	66.57	7.53
Movement LOS	D	D	E	A	A	E	A
d_A, Approach Delay [s/veh]	43.86		8.99		9.56		
Approach LOS	D		A		A		
d_I, Intersection Delay [s/veh]	14.48						
Intersection LOS	B						
Intersection V/C	0.527						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.020	5.237
Bicycle LOS	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.189

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (North)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (North)	
Base Volume Input [veh/h]	7	320	400	22	71	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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]	7	320	400	22	71	12
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	87	109	6	19	3
Total Analysis Volume [veh/h]	8	348	435	24	77	13
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	0.00	0.00	0.19	0.02
d_M, Delay for Movement [s/veh]	8.30	0.00	0.00	0.00	15.98	11.79
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.77	0.77
95th-Percentile Queue Length [ft/ln]	0.55	0.00	0.00	0.00	19.14	19.14
d_A, Approach Delay [s/veh]	0.19		0.00		15.38	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.60					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)**

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):	0.015

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	0	327	412	0	0	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	327	412	0	0	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	82	103	0	0	3
Total Analysis Volume [veh/h]	0	327	412	0	0	12
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	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	13.10	9.57
Movement LOS		A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	1.14	1.14
d_A, Approach Delay [s/veh]	0.00		0.00		9.57	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.15					
Intersection LOS	A					

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	164.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.184

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	22	5	9	95	1	749	697	2719	9	3	1930	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	5	9	95	1	749	697	2719	9	3	1930	51
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	3	27	0	212	198	771	3	1	547	14
Total Analysis Volume [veh/h]	25	6	10	108	1	849	790	3083	10	3	2188	58
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	34	58	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			Yes			Yes	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	63	30	59	59	0	29	29
g / C, Green / Cycle	0.29	0.29	0.63	0.30	0.59	0.59	0.00	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.34	0.49	0.63	0.63	0.00	0.46	0.46
s, saturation flow rate [veh/h]	965	1178	2532	1603	3204	1680	1603	3204	1661
c, Capacity [veh/h]	338	413	1595	481	1874	983	8	929	482
d1, Uniform Delay [s]	28.22	28.06	10.30	35.00	20.76	20.76	49.58	35.50	35.50
k, delay calibration	0.50	0.50	0.50	0.50	0.13	0.50	0.11	0.28	0.50
l, 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]	0.74	1.55	1.28	298.64	39.92	54.23	24.69	268.26	277.78
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	0.12	0.26	0.53	1.64	1.08	1.08	0.36	1.59	1.60
d, Delay for Lane Group [s/veh]	28.95	29.61	11.58	333.64	60.68	74.99	74.28	303.76	313.28
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.88	2.22	5.00	50.79	28.34	33.62	0.13	45.20	48.13
50th-Percentile Queue Length [ft/ln]	21.99	55.54	125.12	1269.84	708.44	840.56	3.23	1129.98	1203.21
95th-Percentile Queue Length [veh/ln]	1.58	4.00	8.67	79.17	39.50	46.07	0.23	70.28	74.55
95th-Percentile Queue Length [ft/ln]	39.58	99.97	216.85	1979.34	987.44	1151.82	5.81	1757.04	1863.86

Movement, Approach, & Intersection Results

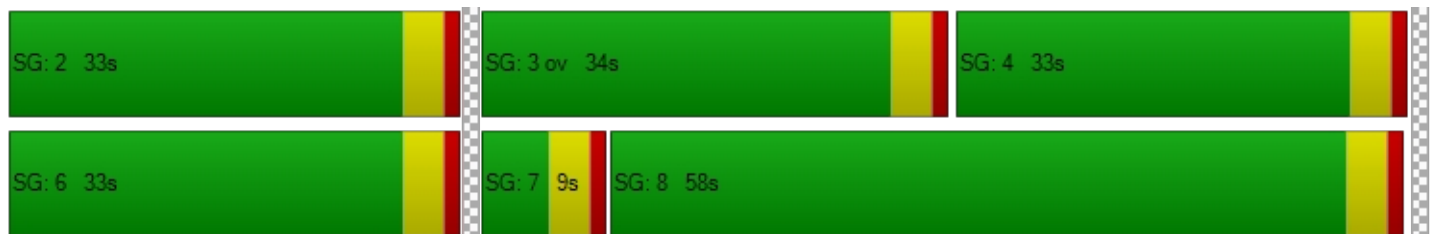
d_M, Delay for Movement [s/veh]	28.95	28.95	28.95	29.61	29.61	11.58	333.64	65.58	74.99	74.28	306.85	313.28
Movement LOS	C	C	C	C	C	B	F	F	E	E	F	F
d_A, Approach Delay [s/veh]	28.95			13.63			120.14			306.71		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	164.15											
Intersection LOS	F											
Intersection V/C	1.184											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			580		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.21		
I_b,int, Bicycle LOS Score for Intersection	1.627			3.140			3.695			2.797		
Bicycle LOS	A			C			D			C		

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

Control Type:	Signalized	Delay (sec / veh):	21.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.742

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⌈⌋		⌈⌋			⌈⌋	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	430	52	10	1130	453	58	870
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	430	52	10	1130	453	58	870
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	117	14	3	307	123	16	236
Total Analysis Volume [veh/h]	467	57	11	1228	492	63	946
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	31	0	9	60	0	9	60
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	18	18	1	65	65	5	69
g / C, Green / Cycle	0.18	0.18	0.01	0.65	0.65	0.05	0.69
(v / s)_i Volume / Saturation Flow Rate	0.15	0.04	0.01	0.52	0.55	0.04	0.30
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1526	1603	3204
c, Capacity [veh/h]	553	254	23	1099	996	79	2205
d1, Uniform Delay [s]	39.79	35.23	48.92	12.57	13.45	47.03	6.90
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.65	0.44	14.76	6.07	8.81	16.14	0.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.22	0.48	0.80	0.85	0.79	0.43
d, Delay for Lane Group [s/veh]	43.44	35.67	63.68	18.64	22.26	63.16	7.51
Lane Group LOS	D	D	E	B	C	E	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	5.76	1.22	0.37	14.20	15.14	1.90	4.05
50th-Percentile Queue Length [ft/ln]	144.12	30.41	9.14	355.01	378.38	47.47	101.33
95th-Percentile Queue Length [veh/ln]	9.70	2.19	0.66	20.38	21.52	3.42	7.30
95th-Percentile Queue Length [ft/ln]	242.56	54.74	16.44	509.51	537.89	85.44	182.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.44	35.67	63.68	19.68	22.26	63.16	7.51
Movement LOS	D	D	E	B	C	E	A
d_A, Approach Delay [s/veh]	42.60		20.69		10.99		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	21.21						
Intersection LOS	C						
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 [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.560	4.965
Bicycle LOS	D	F	E

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

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):	0.148

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	24	440	440	71	42	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	440	440	71	42	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	120	120	19	11	2
Total Analysis Volume [veh/h]	26	478	478	77	46	8
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	0.03	0.00	0.00	0.00	0.15	0.01
d_M, Delay for Movement [s/veh]	8.65	0.00	0.00	0.00	18.58	12.00
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.08	0.00	0.00	0.00	0.56	0.56
95th-Percentile Queue Length [ft/ln]	1.98	0.00	0.00	0.00	13.98	13.98
d_A, Approach Delay [s/veh]	0.45		0.00		17.61	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.06					
Intersection LOS	C					

**Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)**

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	0	464	447	0	0	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	464	447	0	0	7
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	116	112	0	0	2
Total Analysis Volume [veh/h]	0	464	447	0	0	7
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	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	14.39	9.66
Movement LOS		A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.68	0.68
d_A, Approach Delay [s/veh]	0.00		0.00		9.66	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	A					

FUTURE YEAR CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	171.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.288

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	14	7	12	122	8	1311	571	2704	30	16	2320	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	14	7	12	122	8	1311	571	2704	30	16	2320	46
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	35	2	372	162	766	9	5	658	13
Total Analysis Volume [veh/h]	16	8	14	138	9	1486	647	3066	34	18	2630	52
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.05	0.15	0.59	0.40	0.63	0.64	0.01	0.55	0.55
s, saturation flow rate [veh/h]	704	961	2532	1603	3204	1674	1603	3204	1666
c, Capacity [veh/h]	256	349	1471	401	1823	952	32	1086	565
d1, Uniform Delay [s]	26.89	30.85	20.95	37.50	21.56	21.56	48.54	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.50	0.14	0.50	0.11	0.31	0.50
l, 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]	1.22	3.69	25.98	287.67	54.25	68.48	14.00	281.77	292.31
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	0.15	0.42	1.01	1.61	1.11	1.12	0.56	1.62	1.63
d, Delay for Lane Group [s/veh]	28.11	34.53	46.93	325.16	75.81	90.03	62.54	314.82	325.36
Lane Group LOS	C	C	F	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.74	3.40	20.70	41.26	31.48	36.64	0.56	54.66	58.51
50th-Percentile Queue Length [ft/ln]	18.55	84.94	517.47	1031.53	786.94	916.08	13.92	1366.61	1462.70
95th-Percentile Queue Length [veh/ln]	1.34	6.12	28.39	64.27	44.31	51.00	1.00	85.17	90.91
95th-Percentile Queue Length [ft/ln]	33.39	152.88	709.87	1606.82	1107.67	1274.93	25.05	2129.16	2272.64

Movement, Approach, & Intersection Results

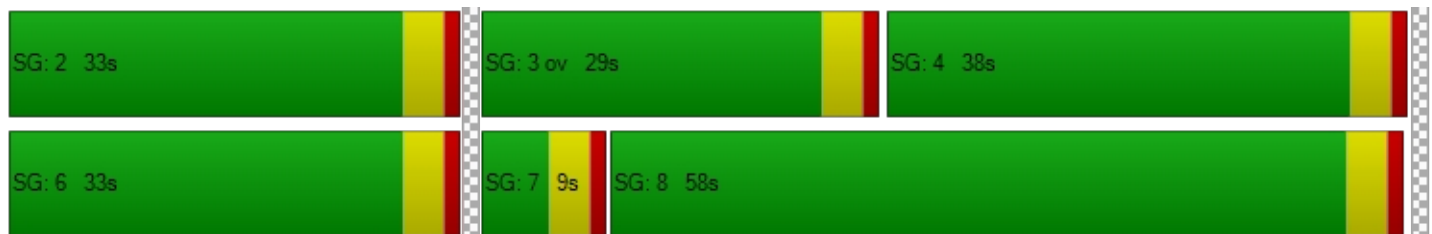
d_M, Delay for Movement [s/veh]	28.11	28.11	28.11	34.53	34.53	46.93	325.16	80.60	90.03	62.54	318.30	325.36
Movement LOS	C	C	C	C	C	F	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	28.11			45.82			122.92			316.73		
Approach LOS	C			D			F			F		
d_I, Intersection Delay [s/veh]	171.43											
Intersection LOS	F											
Intersection V/C	1.288											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			680		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			21.78		
I_b,int, Bicycle LOS Score for Intersection	1.622			4.254			3.620			3.045		
Bicycle LOS	A			E			D			C		

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

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):	0.676

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⚡⚡		⚡⚡			⚡⚡	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	394	26	13	787	485	39	1561
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	394	26	13	787	485	39	1561
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	7	4	214	132	11	424
Total Analysis Volume [veh/h]	428	28	14	855	527	42	1697
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	65	0	9	26	0	9	26
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	17	17	2	68	68	3	70
g / C, Green / Cycle	0.17	0.17	0.02	0.68	0.68	0.03	0.70
(v / s)_i Volume / Saturation Flow Rate	0.14	0.02	0.01	0.43	0.44	0.03	0.53
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1473	1603	3204
c, Capacity [veh/h]	519	238	28	1141	999	57	2231
d1, Uniform Delay [s]	40.27	35.42	48.72	9.15	9.32	47.77	9.81
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.40	0.22	13.65	2.74	3.34	16.90	2.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.12	0.51	0.64	0.65	0.74	0.76
d, Delay for Lane Group [s/veh]	43.66	35.64	62.37	11.89	12.66	64.67	12.32
Lane Group LOS	D	D	E	B	B	E	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.27	0.59	0.45	8.64	8.02	1.30	10.77
50th-Percentile Queue Length [ft/ln]	131.84	14.83	11.24	216.00	200.58	32.47	269.17
95th-Percentile Queue Length [veh/ln]	9.04	1.07	0.81	13.46	12.67	2.34	16.15
95th-Percentile Queue Length [ft/ln]	225.99	26.69	20.24	336.52	316.71	58.45	403.70

Movement, Approach, & Intersection Results

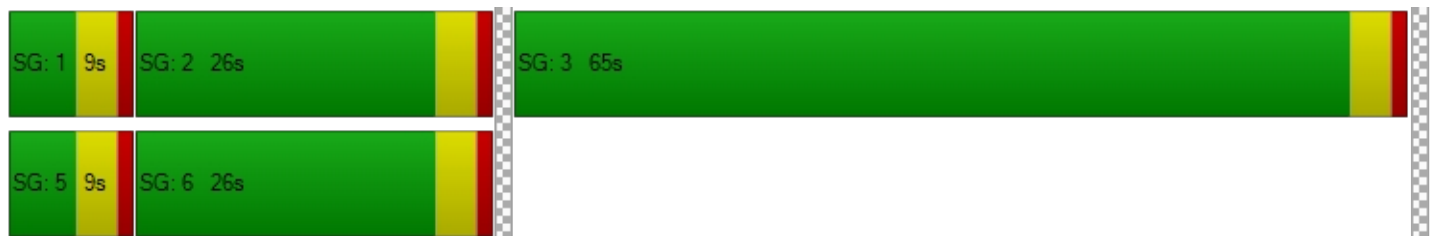
d_M, Delay for Movement [s/veh]	43.66	35.64	62.37	12.00	12.66	64.67	12.32
Movement LOS	D	D	E	B	B	E	B
d_A, Approach Delay [s/veh]	43.17		12.75		13.58		
Approach LOS	D		B		B		
d_I, Intersection Delay [s/veh]	17.02						
Intersection LOS	B						
Intersection V/C	0.676						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.284	5.567
Bicycle LOS	D	F	F

Sequence

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



**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	294.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.475

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	28	7	12	113	1	934	861	3428	12	4	2434	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	28	7	12	113	1	934	861	3428	12	4	2434	51
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	3	32	0	265	244	972	3	1	690	14
Total Analysis Volume [veh/h]	32	8	14	128	1	1059	976	3887	14	5	2760	58
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	34	58	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	63	30	58	58	1	29	29
g / C, Green / Cycle	0.29	0.29	0.63	0.30	0.58	0.58	0.01	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.06	0.11	0.42	0.61	0.80	0.80	0.00	0.58	0.58
s, saturation flow rate [veh/h]	869	1130	2532	1603	3204	1680	1603	3204	1665
c, Capacity [veh/h]	309	399	1595	481	1866	978	12	929	483
d1, Uniform Delay [s]	30.23	28.84	11.77	35.00	20.88	20.88	49.40	35.50	35.50
k, delay calibration	0.50	0.50	0.50	0.50	0.24	0.50	0.11	0.42	0.50
l, 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]	1.23	2.13	2.20	470.71	168.44	174.42	20.40	448.34	460.61
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	0.17	0.32	0.66	2.03	1.37	1.37	0.41	1.99	2.01
d, Delay for Lane Group [s/veh]	31.46	30.97	13.96	505.72	189.32	195.30	69.80	483.84	496.11
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.22	2.72	7.22	73.78	61.57	66.19	0.19	68.44	72.79
50th-Percentile Queue Length [ft/ln]	30.41	68.06	180.42	1844.40	1539.36	1654.65	4.75	1711.07	1819.75
95th-Percentile Queue Length [veh/ln]	2.19	4.90	11.62	117.09	92.67	99.21	0.34	108.49	115.11
95th-Percentile Queue Length [ft/ln]	54.74	122.51	290.56	2927.34	2316.69	2480.17	8.54	2712.35	2877.75

Movement, Approach, & Intersection Results

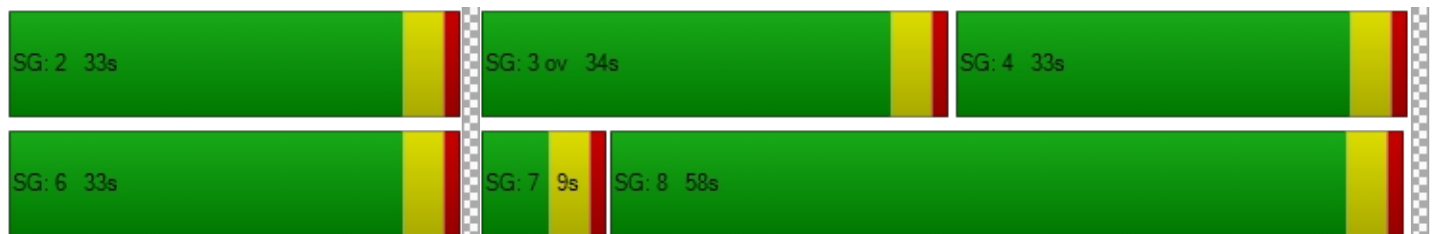
d_M, Delay for Movement [s/veh]	31.46	31.46	31.46	30.97	30.97	13.96	505.72	191.37	195.30	69.80	487.89	496.11
Movement LOS	C	C	C	C	C	B	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	31.46			15.81			254.29			487.32		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	294.83											
Intersection LOS	F											
Intersection V/C	1.475											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			580		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.21		
I_b,int, Bicycle LOS Score for Intersection	1.649			3.520			4.242			3.112		
Bicycle LOS	A			D			D			C		

Sequence

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



Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree

Control Type:	Signalized	Delay (sec / veh):	46.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⬅️➡️		⬅️➡️			⬅️➡️	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	538	39	13	1483	551	26	1142
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	538	39	13	1483	551	26	1142
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	11	4	403	150	7	310
Total Analysis Volume [veh/h]	585	42	14	1612	599	28	1241
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	3	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	5	5	5
Maximum Green [s]	30	0	30	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	1.0
Split [s]	26	0	9	65	26	9	65
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	3.0
Walk [s]	5	0	0	5	5	0	5
Pedestrian Clearance [s]	17	0	0	17	17	0	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	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	21	21	2	64	64	3	66
g / C, Green / Cycle	0.21	0.21	0.02	0.64	0.64	0.03	0.66
(v / s)_i Volume / Saturation Flow Rate	0.19	0.03	0.01	0.66	0.72	0.02	0.39
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1536	1603	3204
c, Capacity [veh/h]	646	297	28	1084	990	45	2099
d1, Uniform Delay [s]	38.66	32.34	48.72	17.79	17.79	48.07	9.71
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.12	0.22	13.65	32.36	66.45	13.17	1.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.14	0.51	1.02	1.12	0.62	0.59
d, Delay for Lane Group [s/veh]	43.78	32.56	62.37	50.15	84.24	61.24	10.94
Lane Group LOS	D	C	E	F	F	E	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.35	0.85	0.45	31.02	37.69	0.85	7.12
50th-Percentile Queue Length [ft/ln]	183.73	21.14	11.24	775.61	942.22	21.31	178.07
95th-Percentile Queue Length [veh/ln]	11.80	1.52	0.81	40.86	52.36	1.53	11.50
95th-Percentile Queue Length [ft/ln]	294.88	38.05	20.24	1021.41	1308.93	38.36	287.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.78	32.56	62.37	60.86	84.24	61.24	10.94
Movement LOS	D	C	E	E	F	E	B
d_A, Approach Delay [s/veh]	43.02		67.17			12.05	
Approach LOS	D		E			B	
d_I, Intersection Delay [s/veh]	46.52						
Intersection LOS	D						
Intersection V/C	0.925						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.968	5.179
Bicycle LOS	D	F	F

Sequence

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



FUTURE YEAR W/ PROJECT CONDITIONS

**Intersection Level Of Service Report
Intersection 1: Ridgecrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	172.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.292

Intersection Setup

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgecrest			Ridgecrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	14	7	12	132	8	1325	575	2704	30	16	2320	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	14	7	12	132	8	1325	575	2704	30	16	2320	49
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	2	3	37	2	376	163	766	9	5	658	14
Total Analysis Volume [veh/h]	16	8	14	150	9	1502	652	3066	34	18	2630	56
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	29	58	0	9	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	58	25	57	57	2	34	34
g / C, Green / Cycle	0.29	0.29	0.58	0.25	0.57	0.57	0.02	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.06	0.17	0.59	0.41	0.63	0.64	0.01	0.55	0.55
s, saturation flow rate [veh/h]	609	922	2532	1603	3204	1674	1603	3204	1665
c, Capacity [veh/h]	228	338	1471	401	1823	952	32	1086	565
d1, Uniform Delay [s]	27.21	31.59	20.95	37.50	21.56	21.56	48.54	33.05	33.05
k, delay calibration	0.50	0.50	0.50	0.50	0.14	0.50	0.11	0.32	0.50
l, 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]	1.57	4.63	28.91	293.15	54.25	68.48	14.00	282.90	293.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.47	1.02	1.63	1.11	1.12	0.56	1.62	1.64
d, Delay for Lane Group [s/veh]	28.78	36.22	49.86	330.65	75.81	90.03	62.54	315.95	326.90
Lane Group LOS	C	D	F	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.75	3.80	21.30	41.87	31.48	36.64	0.56	54.83	58.71
50th-Percentile Queue Length [ft/ln]	18.86	95.04	532.44	1046.80	786.94	916.08	13.92	1370.86	1467.68
95th-Percentile Queue Length [veh/ln]	1.36	6.84	29.36	65.28	44.31	51.00	1.00	85.45	91.25
95th-Percentile Queue Length [ft/ln]	33.95	171.07	734.03	1631.88	1107.67	1274.93	25.05	2136.26	2281.19

Movement, Approach, & Intersection Results

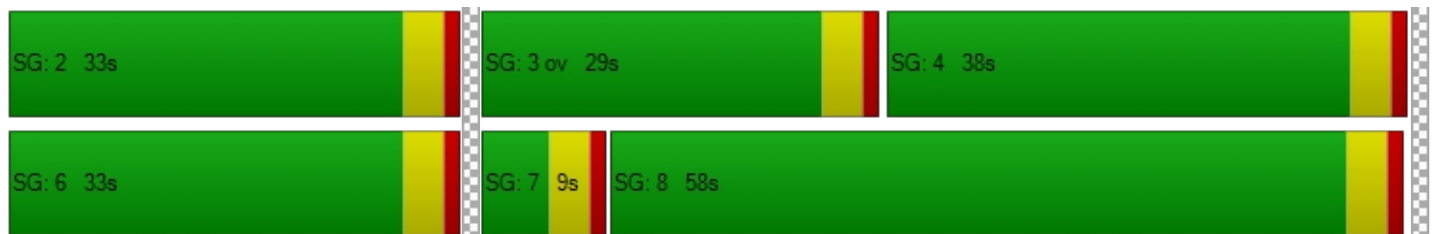
d_M, Delay for Movement [s/veh]	28.78	28.78	28.78	36.22	36.22	49.86	330.65	80.60	90.03	62.54	319.56	326.90
Movement LOS	C	C	C	D	D	F	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	28.78			48.56			124.14			318.00		
Approach LOS	C			D			F			F		
d_I, Intersection Delay [s/veh]	172.58											
Intersection LOS	F											
Intersection V/C	1.292											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	580	580	1080	680
d_b, Bicycle Delay [s]	25.21	25.21	10.58	21.78
I_b,int, Bicycle LOS Score for Intersection	1.622	4.300	3.623	3.047
Bicycle LOS	A	E	D	C

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

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):	0.687

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	T T T		T T T			T T T	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	427	64	13	787	495	51	1561
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	427	64	13	787	495	51	1561
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	17	4	214	135	14	424
Total Analysis Volume [veh/h]	464	70	14	855	538	55	1697
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	65	0	9	26	0	9	26
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	18	18	2	66	66	4	68
g / C, Green / Cycle	0.18	0.18	0.02	0.66	0.66	0.04	0.68
(v / s)_i Volume / Saturation Flow Rate	0.15	0.05	0.01	0.44	0.45	0.03	0.53
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1471	1603	3204
c, Capacity [veh/h]	560	257	28	1106	966	69	2189
d1, Uniform Delay [s]	39.53	35.37	48.72	10.43	10.65	47.41	10.68
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.24	0.56	13.65	3.15	3.88	18.23	2.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.27	0.51	0.66	0.68	0.80	0.78
d, Delay for Lane Group [s/veh]	42.77	35.94	62.37	13.59	14.52	65.64	13.45
Lane Group LOS	D	D	E	B	B	E	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.68	1.51	0.45	9.61	8.94	1.70	11.49
50th-Percentile Queue Length [ft/ln]	141.94	37.63	11.24	240.21	223.58	42.51	287.28
95th-Percentile Queue Length [veh/ln]	9.59	2.71	0.81	14.69	13.85	3.06	17.05
95th-Percentile Queue Length [ft/ln]	239.63	67.73	20.24	367.30	346.19	76.52	426.26

Movement, Approach, & Intersection Results

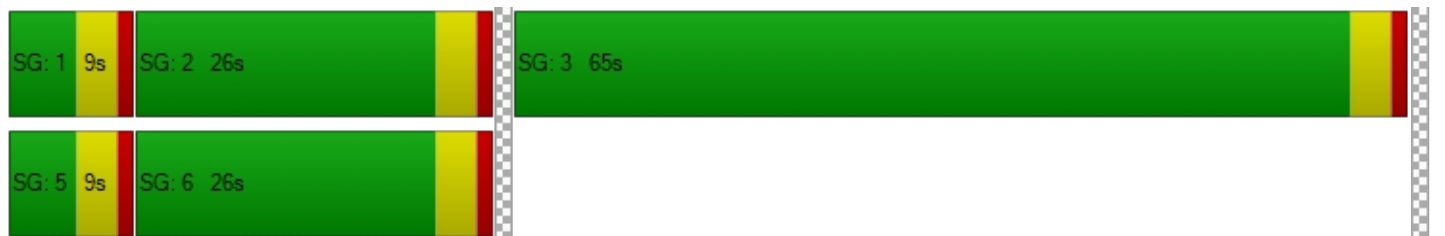
d_M, Delay for Movement [s/veh]	42.77	35.94	62.37	13.72	14.52	65.64	13.45
Movement LOS	D	D	E	B	B	E	B
d_A, Approach Delay [s/veh]	41.87		14.51		15.08		
Approach LOS	D		B		B		
d_I, Intersection Delay [s/veh]	18.74						
Intersection LOS	B						
Intersection V/C	0.687						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.293	5.578
Bicycle LOS	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

Control Type:	Two-way stop	Delay (sec / veh):	20.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.251

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (North)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (North)	
Base Volume Input [veh/h]	7	420	525	22	71	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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]	7	420	525	22	71	12
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	114	143	6	19	3
Total Analysis Volume [veh/h]	8	457	571	24	77	13
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	0.01	0.00	0.25	0.02
d_M, Delay for Movement [s/veh]	8.71	0.00	0.00	0.00	20.65	14.08
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	1.07	1.07
95th-Percentile Queue Length [ft/ln]	0.62	0.00	0.00	0.00	26.71	26.71
d_A, Approach Delay [s/veh]	0.15		0.00		19.70	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.60					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	0	427	537	0	0	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	427	537	0	0	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	107	134	0	0	3
Total Analysis Volume [veh/h]	0	427	537	0	0	12
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	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	15.46	10.02
Movement LOS		A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	1.25	1.25
d_A, Approach Delay [s/veh]	0.00		0.00		10.02	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.12					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 1: Ridgcrest/Bear Valley**

Control Type:	Signalized	Delay (sec / veh):	297.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.491

Intersection Setup

Name	Ridgcrest			Ridgcrest			Bear Valley			Bear Valley		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+rr			rlll			rlll		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	200.00	100.00	100.00	250.00	100.00	100.00	250.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name	Ridgcrest			Ridgcrest			Bear Valley			Bear Valley		
Base Volume Input [veh/h]	28	7	12	119	1	942	875	3428	12	4	2434	61
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	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]	28	7	12	119	1	942	875	3428	12	4	2434	61
Peak Hour Factor	0.8820	0.8820	0.8820	0.8820	0.8820	0.8820	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	3	34	0	267	248	972	3	1	690	17
Total Analysis Volume [veh/h]	32	8	14	135	1	1068	992	3887	14	5	2760	69
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	Yes
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	33	34	58	0	9	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	24	0	0	24	24	0	7	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	63	30	58	58	1	29	29
g / C, Green / Cycle	0.29	0.29	0.63	0.30	0.58	0.58	0.01	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.06	0.12	0.42	0.62	0.80	0.80	0.00	0.58	0.59
s, saturation flow rate [veh/h]	836	1122	2532	1603	3204	1680	1603	3204	1662
c, Capacity [veh/h]	300	397	1595	481	1866	978	12	929	482
d1, Uniform Delay [s]	30.54	29.08	11.84	35.00	20.88	20.88	49.40	35.50	35.50
k, delay calibration	0.50	0.50	0.50	0.50	0.24	0.50	0.11	0.43	0.50
l, 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]	1.31	2.34	2.25	485.58	168.44	174.42	20.40	451.86	465.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.34	0.67	2.06	1.37	1.37	0.41	2.00	2.02
d, Delay for Lane Group [s/veh]	31.85	31.42	14.09	520.59	189.32	195.30	69.80	487.36	501.32
Lane Group LOS	C	C	B	F	F	F	E	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.23	2.90	7.33	75.76	61.57	66.19	0.19	68.90	73.35
50th-Percentile Queue Length [ft/ln]	30.78	72.52	183.19	1894.04	1539.36	1654.65	4.75	1722.45	1833.68
95th-Percentile Queue Length [veh/ln]	2.22	5.22	11.77	120.34	92.67	99.21	0.34	109.24	116.04
95th-Percentile Queue Length [ft/ln]	55.40	130.54	294.18	3008.42	2316.69	2480.17	8.54	2730.91	2900.97

Movement, Approach, & Intersection Results

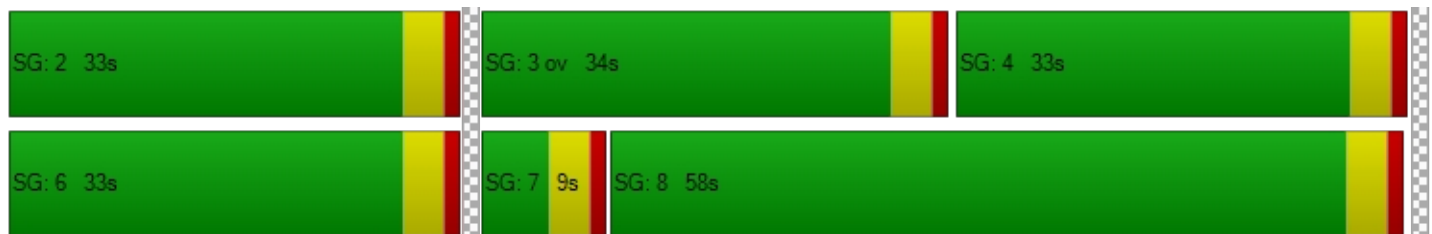
d_M, Delay for Movement [s/veh]	31.85	31.85	31.85	31.42	31.42	14.09	520.59	191.37	195.30	69.80	491.94	501.32
Movement LOS	C	C	C	C	C	B	F	F	F	E	F	F
d_A, Approach Delay [s/veh]	31.85			16.05			258.12			491.42		
Approach LOS	C			B			F			F		
d_I, Intersection Delay [s/veh]	297.91											
Intersection LOS	F											
Intersection V/C	1.491											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0			0.0			0.0			0.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	0.00			0.00			0.00			0.00		
I_p,int, Pedestrian LOS Score for Intersection	0.000			0.000			0.000			0.000		
Crosswalk LOS	F			F			F			F		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	580			580			1080			580		
d_b, Bicycle Delay [s]	25.21			25.21			10.58			25.21		
I_b,int, Bicycle LOS Score for Intersection	1.649			3.546			4.251			3.118		
Bicycle LOS	A			D			E			C		

Sequence

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



**Intersection Level Of Service Report
Intersection 2: Ridgecrest/Green Tree**

Control Type:	Signalized	Delay (sec / veh):	49.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.973

Intersection Setup

Name	Ridgecrest		Green Tree			Green Tree	
Approach	Northbound		Eastbound			Westbound	
Lane Configuration	⌈⌋		⌈⌋			⌈⌋	
Turning Movement	Left	Right	U-turn	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	1	0
Pocket Length [ft]	250.00	100.00	250.00	100.00	250.00	250.00	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	Ridgecrest		Green Tree			Green Tree	
Base Volume Input [veh/h]	558	61	13	1483	584	64	1142
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	558	61	13	1483	584	64	1142
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	152	17	4	403	159	17	310
Total Analysis Volume [veh/h]	607	66	14	1612	635	70	1241
Presence of On-Street Parking	No	No	No		No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	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	Yes
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	5	2	0	1	6
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	Lead	-
Minimum Green [s]	5	0	5	5	0	5	5
Maximum Green [s]	30	0	30	30	0	30	30
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	1.0
Split [s]	26	0	9	85	0	9	85
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	0	5	0	0	5
Pedestrian Clearance [s]	17	0	0	17	0	0	10
Rest In Walk	No			No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	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	0.0
Detector Length [ft]	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

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	L	C
C, Cycle Length [s]	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
l1_p, Permitted Start-Up Lost Time [s]	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
g_i, Effective Green Time [s]	22	22	2	81	81	5	84
g / C, Green / Cycle	0.18	0.18	0.02	0.67	0.67	0.04	0.70
(v / s)_i Volume / Saturation Flow Rate	0.20	0.05	0.01	0.67	0.73	0.04	0.39
s, saturation flow rate [veh/h]	3113	1431	1603	1683	1530	1603	3204
c, Capacity [veh/h]	571	263	26	1135	1032	67	2245
d1, Uniform Delay [s]	48.97	41.92	58.59	19.13	19.53	57.46	8.78
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	36.98	0.50	16.93	24.41	55.33	61.06	0.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.06	0.25	0.55	0.99	1.09	1.04	0.55
d, Delay for Lane Group [s/veh]	85.95	42.42	75.52	43.54	74.87	118.52	9.77
Lane Group LOS	F	D	E	D	F	F	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	11.45	1.72	0.54	34.59	41.08	3.19	7.49
50th-Percentile Queue Length [ft/ln]	286.13	42.99	13.57	864.75	1027.09	79.74	187.13
95th-Percentile Queue Length [veh/ln]	17.51	3.10	0.98	44.24	55.56	5.74	11.97
95th-Percentile Queue Length [ft/ln]	437.83	77.39	24.43	1105.88	1388.90	143.54	299.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	85.95	42.42	75.52	53.03	74.87	118.52	9.77
Movement LOS	F	D	E	D	E	F	A
d_A, Approach Delay [s/veh]	81.68		59.30			15.58	
Approach LOS	F		E			B	
d_I, Intersection Delay [s/veh]	49.35						
Intersection LOS	D						
Intersection V/C	0.973						

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /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	4.132	5.998	5.214
Bicycle LOS	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 3: Ridgecrest/Project Driveway (North)

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):	0.207

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (North)	
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	0	0	0
Pocket Length [ft]	200.00	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	Ridgecrest		Ridgecrest		Project Driveway (North)	
Base Volume Input [veh/h]	24	577	577	71	42	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	577	577	71	42	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	157	157	19	11	2
Total Analysis Volume [veh/h]	26	627	627	77	46	8
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	0.03	0.01	0.01	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	9.17	0.00	0.00	0.00	25.26	14.65
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.09	0.00	0.00	0.00	0.82	0.82
95th-Percentile Queue Length [ft/ln]	2.26	0.00	0.00	0.00	20.39	20.39
d_A, Approach Delay [s/veh]	0.37		0.00		23.69	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.08					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 4: Ridgecrest/Project Driveway (South)

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Ridgecrest		Ridgecrest		Project Driveway (South)	
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	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	Ridgecrest		Ridgecrest		Project Driveway (South)	
Base Volume Input [veh/h]	0	601	584	0	0	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
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	601	584	0	0	7
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	150	146	0	0	2
Total Analysis Volume [veh/h]	0	601	584	0	0	7
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	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	17.70	10.16
Movement LOS		A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.75	0.75
d_A, Approach Delay [s/veh]	0.00		0.00		10.16	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	B					

APPENDIX D

SIGNAL WARRANT ANALYSIS SHEETS

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **Ridgecrest Road**

Minor Street: **Driveway**

Total of Both Approaches (VPH): **956**

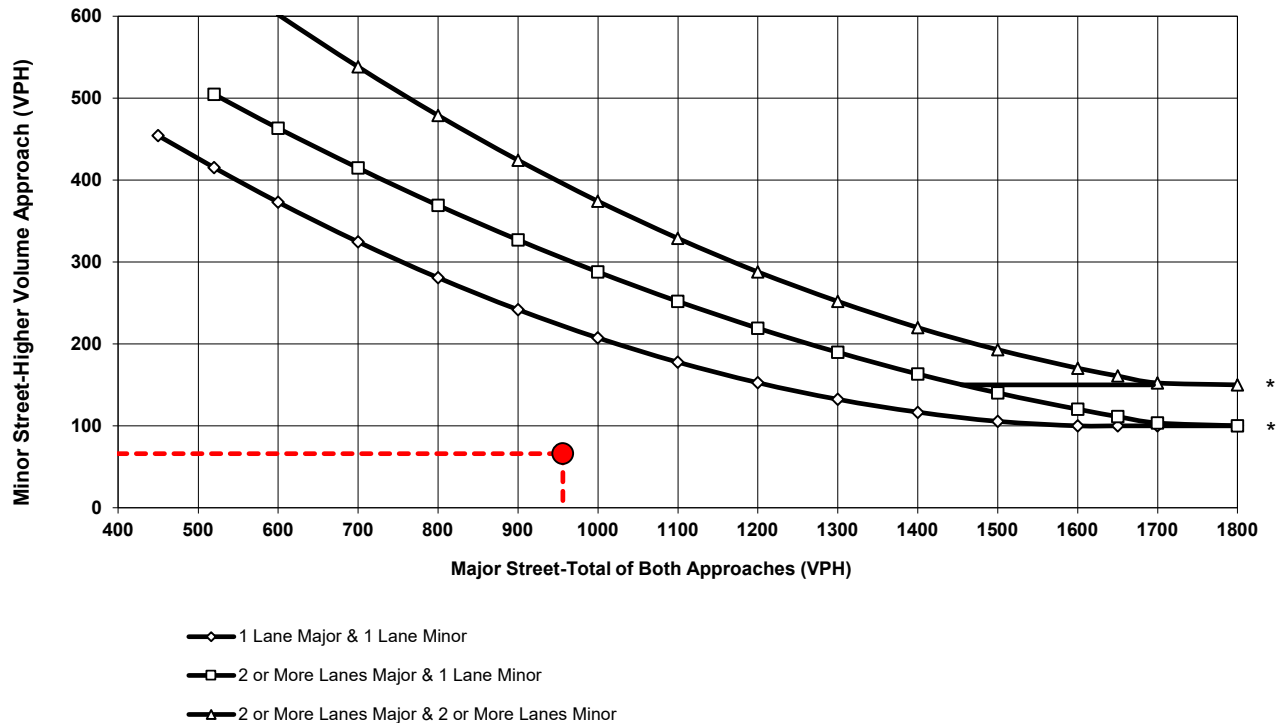
Higher Volume Approach (VPH): **66**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway

Total of Both Approaches (VPH): 1011

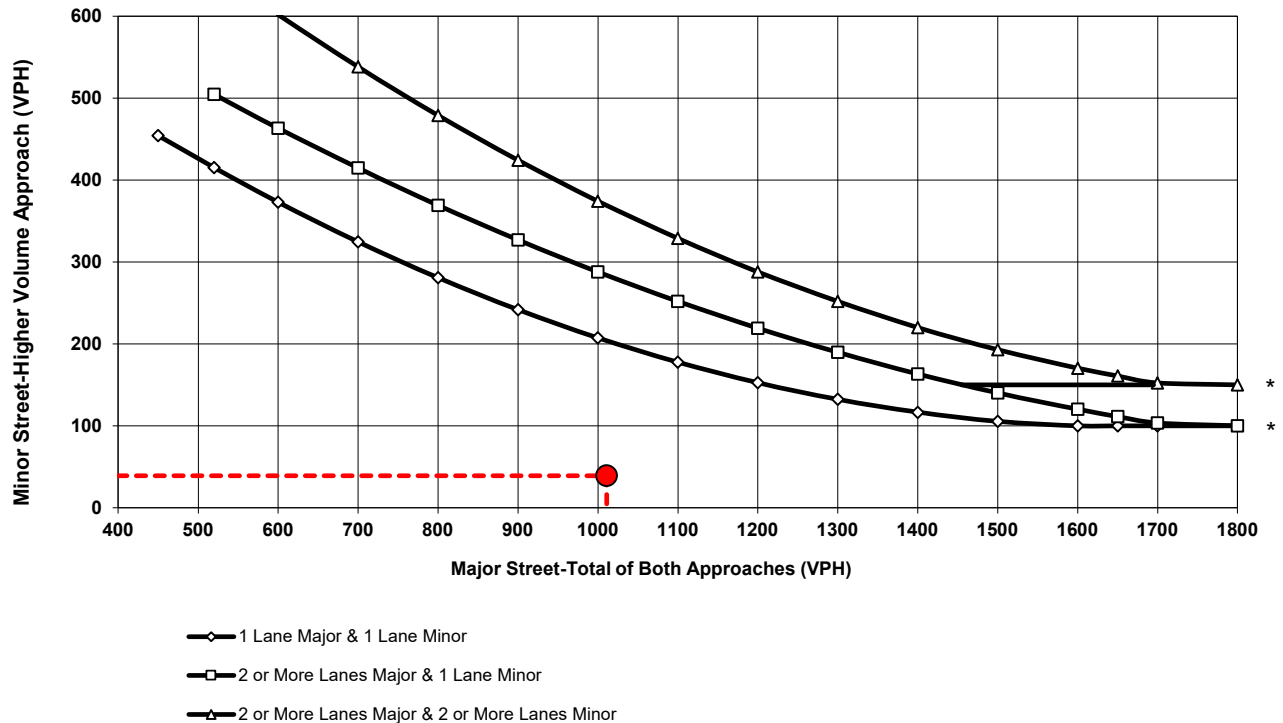
Higher Volume Approach (VPH): 39

Number of Approach Lanes: 2

Number of Approach Lanes: 1

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

OYWP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **Ridgecrest Road**

Minor Street: **Driveway**

Total of Both Approaches (VPH): **749**

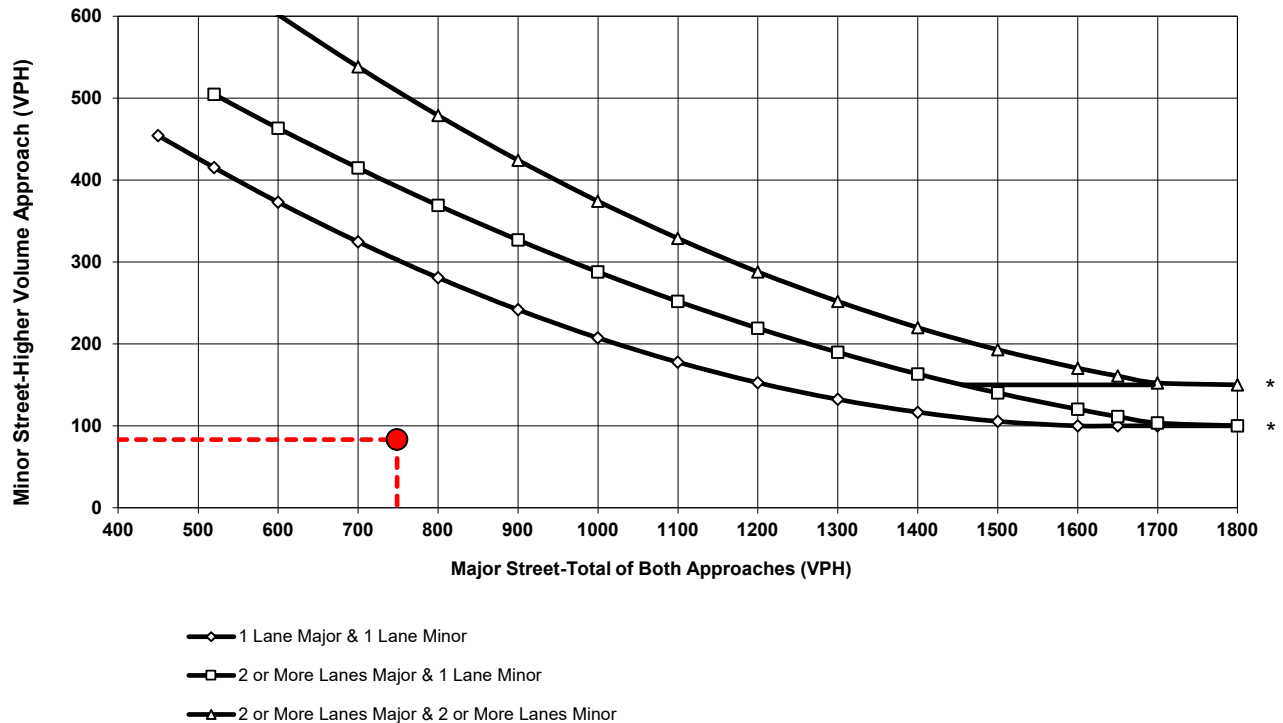
Higher Volume Approach (VPH): **83**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**OYWP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

OYWP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway

Total of Both Approaches (VPH): 975

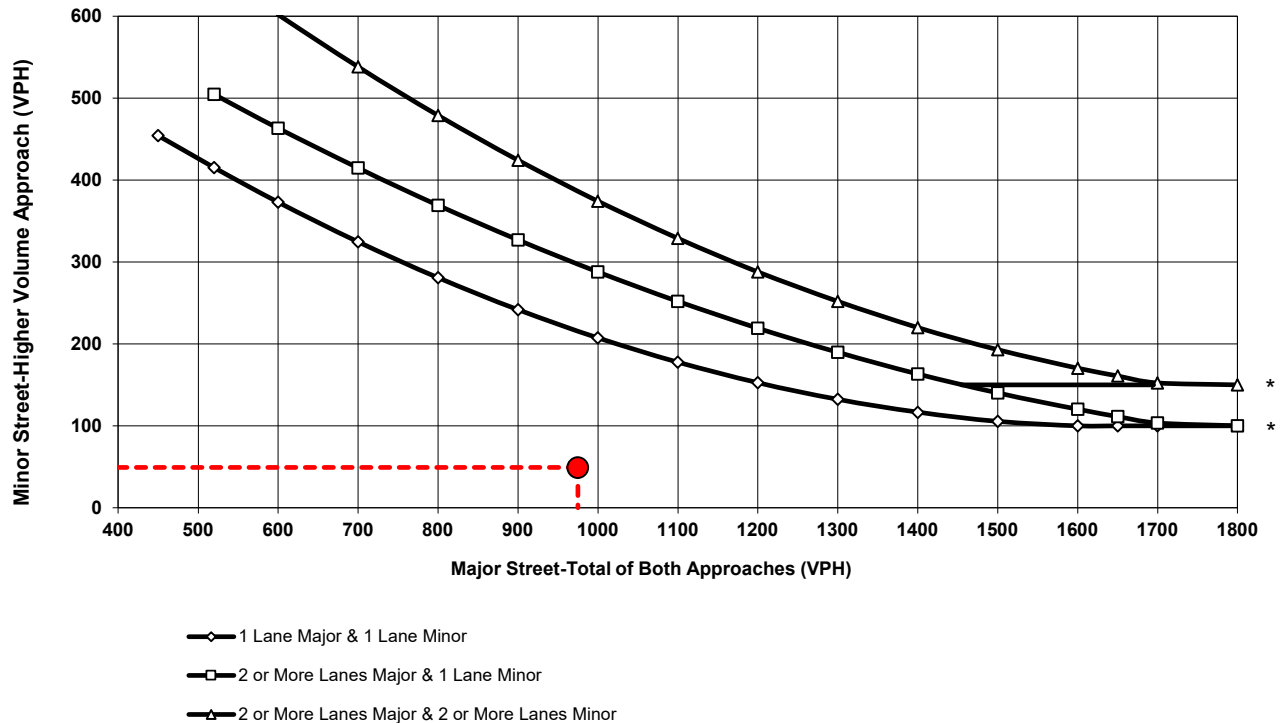
Higher Volume Approach (VPH): 49

Number of Approach Lanes: 2

Number of Approach Lanes: 1

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**OYWP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

2030WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **Ridgecrest Road**

Minor Street: **Driveway**

Total of Both Approaches (VPH): **974**

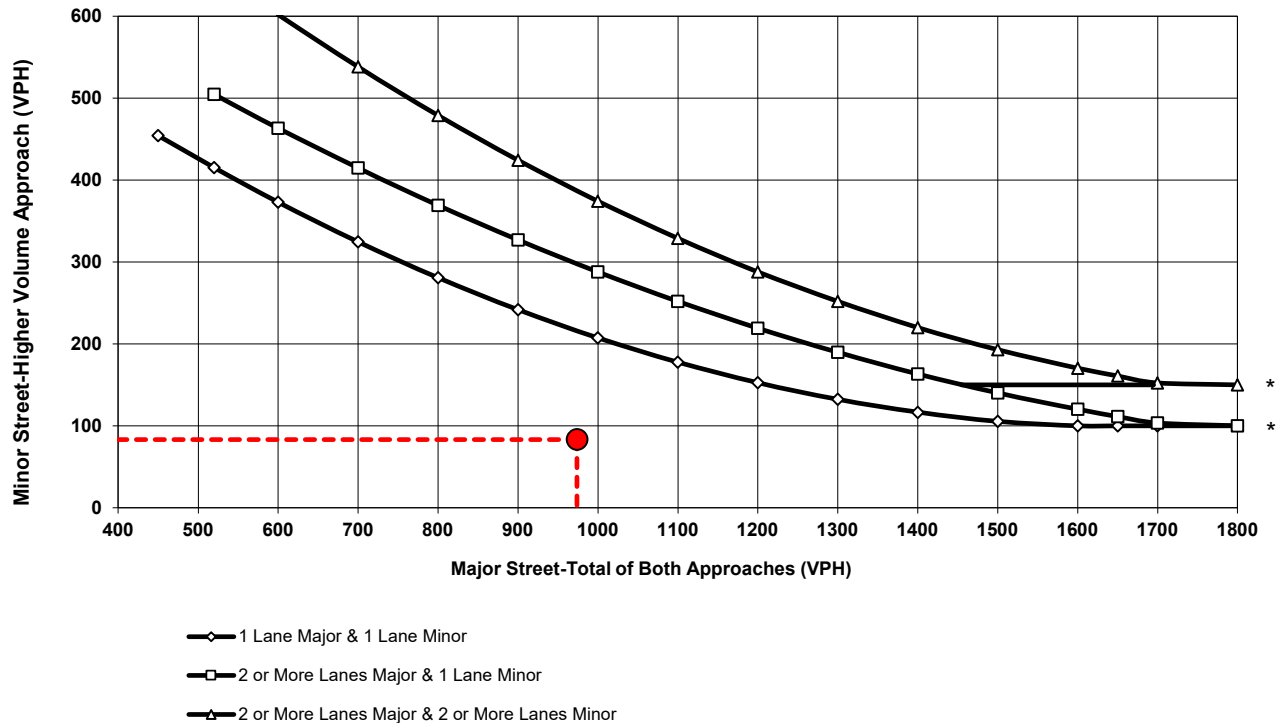
Higher Volume Approach (VPH): **83**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030WP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

2030WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway

Total of Both Approaches (VPH): **1249**

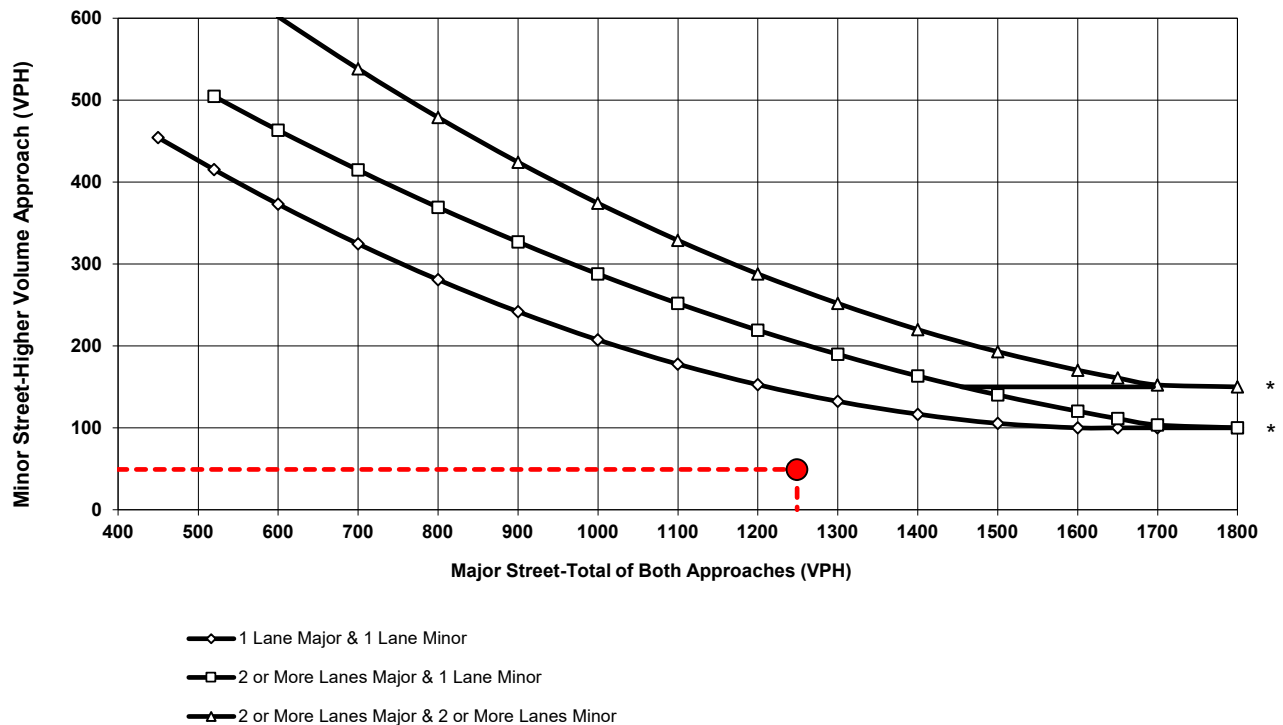
Higher Volume Approach (VPH): **49**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030WP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: AM

Major Street: Ridgecrest Road

Minor Street: Driveway (S)

Total of Both Approaches (VPH): 972

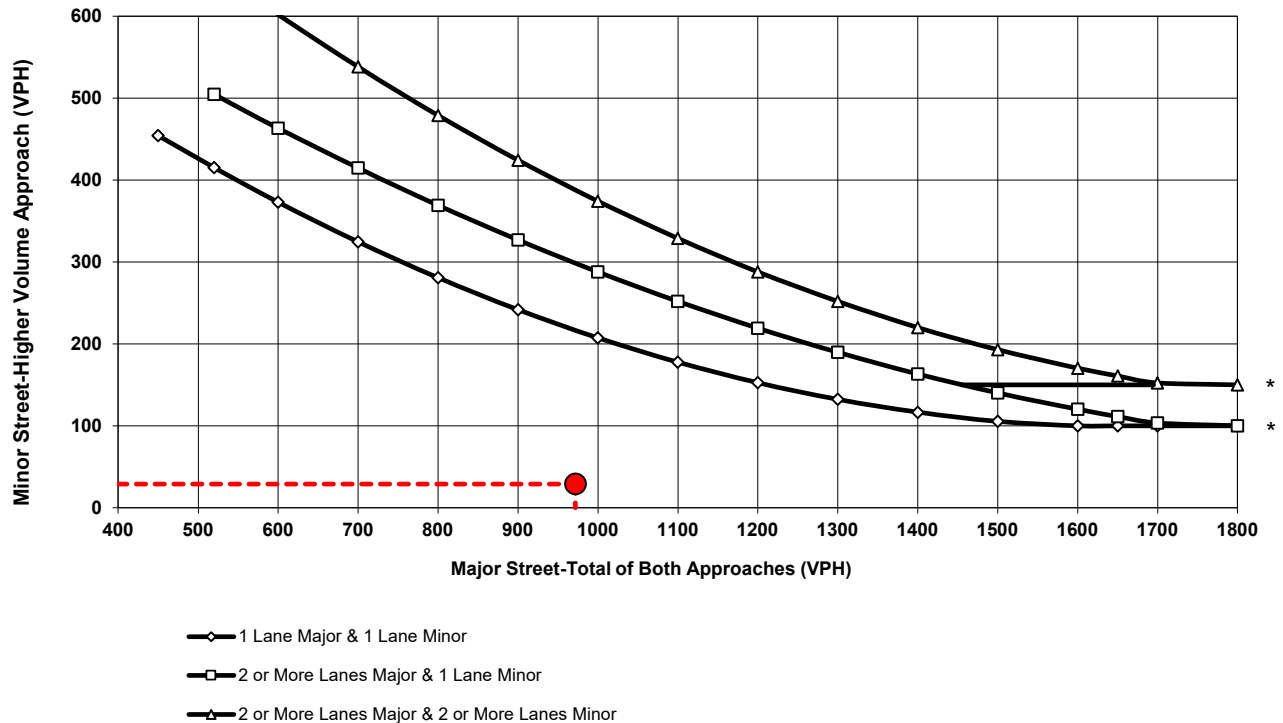
Higher Volume Approach (VPH): 29

Number of Approach Lanes: 2

Number of Approach Lanes: 1

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

EP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway (S)

Total of Both Approaches (VPH): 990

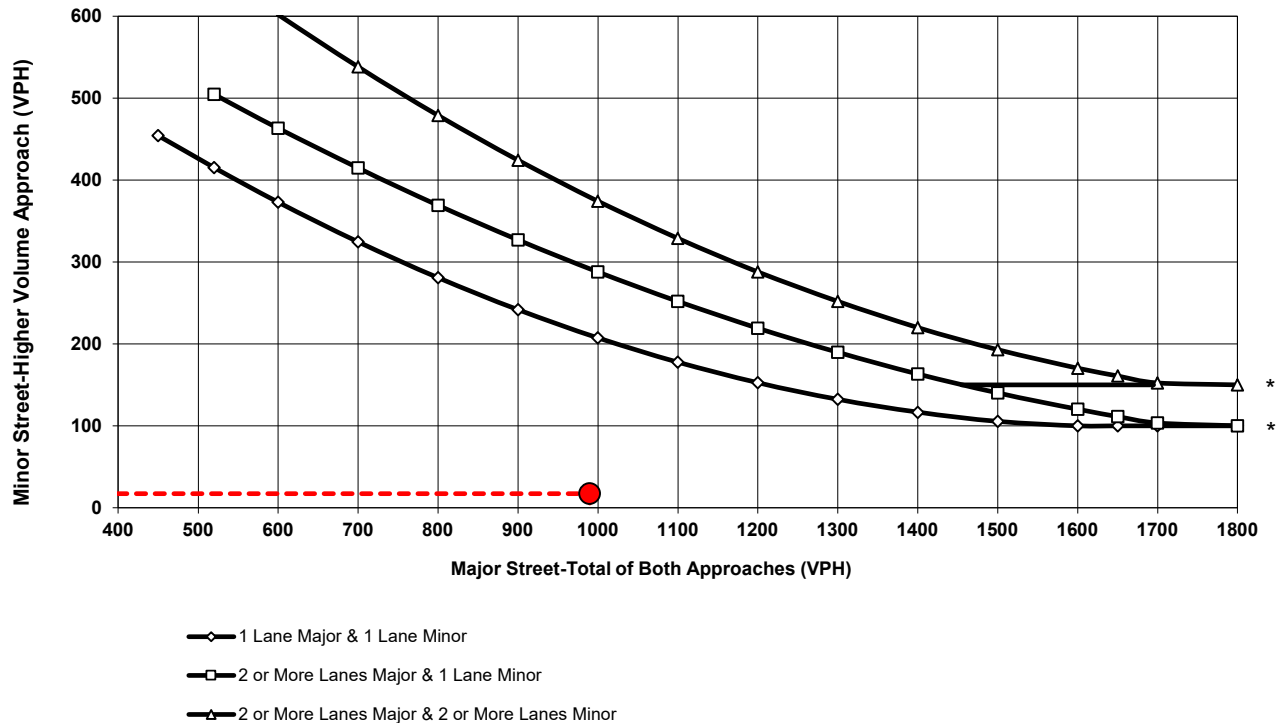
Higher Volume Approach (VPH): 17

Number of Approach Lanes: 2

Number of Approach Lanes: 1

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**EP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

OYWP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **Ridgecrest Road**

Minor Street: **Driveway (S)**

Total of Both Approaches (VPH): **739**

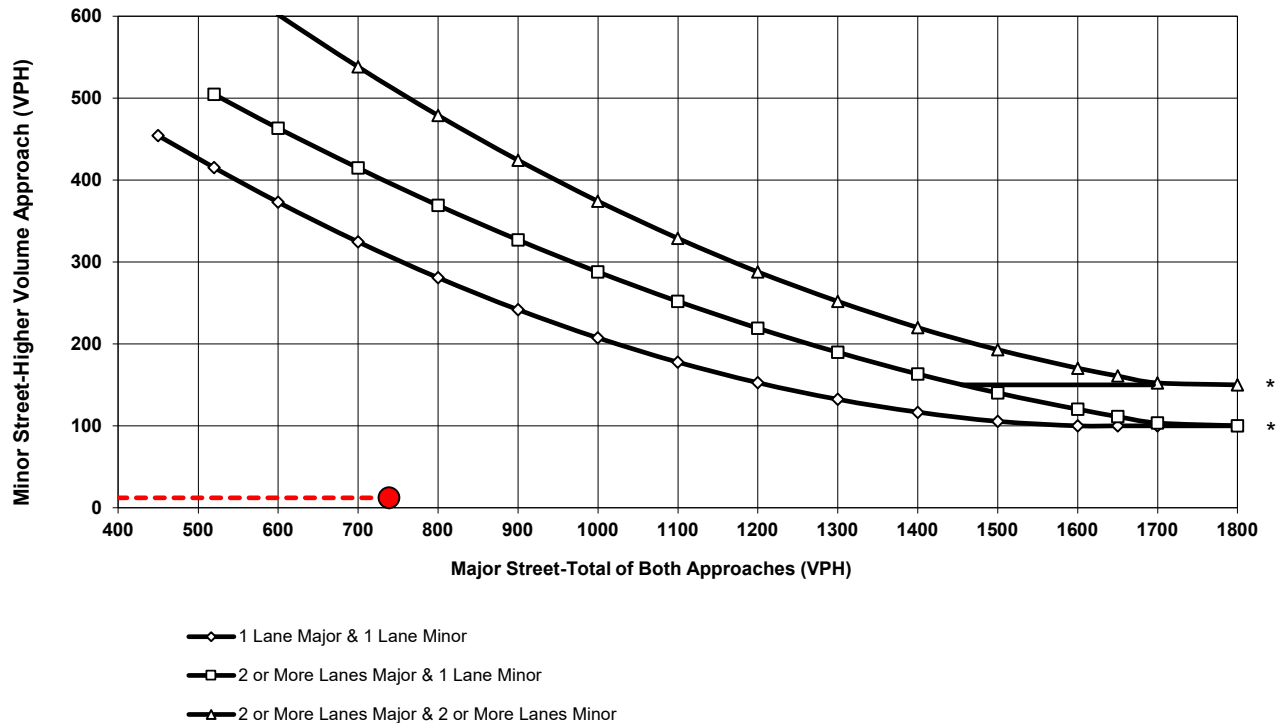
Higher Volume Approach (VPH): **12**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**OYWP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

OYWP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway (S)

Total of Both Approaches (VPH): 911

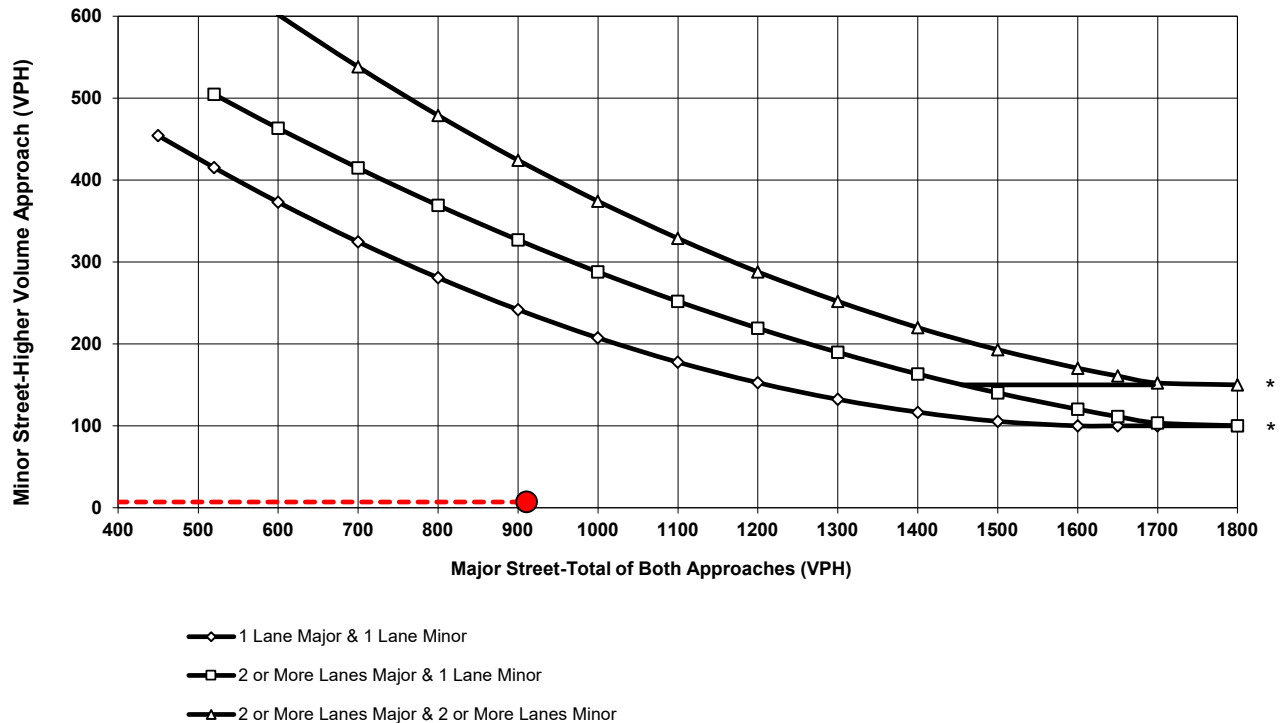
Higher Volume Approach (VPH): 7

Number of Approach Lanes: 2

Number of Approach Lanes: 1

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**OYWP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

2030WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: **AM**

Major Street: **Ridgecrest Road**

Minor Street: **Driveway (S)**

Total of Both Approaches (VPH): **964**

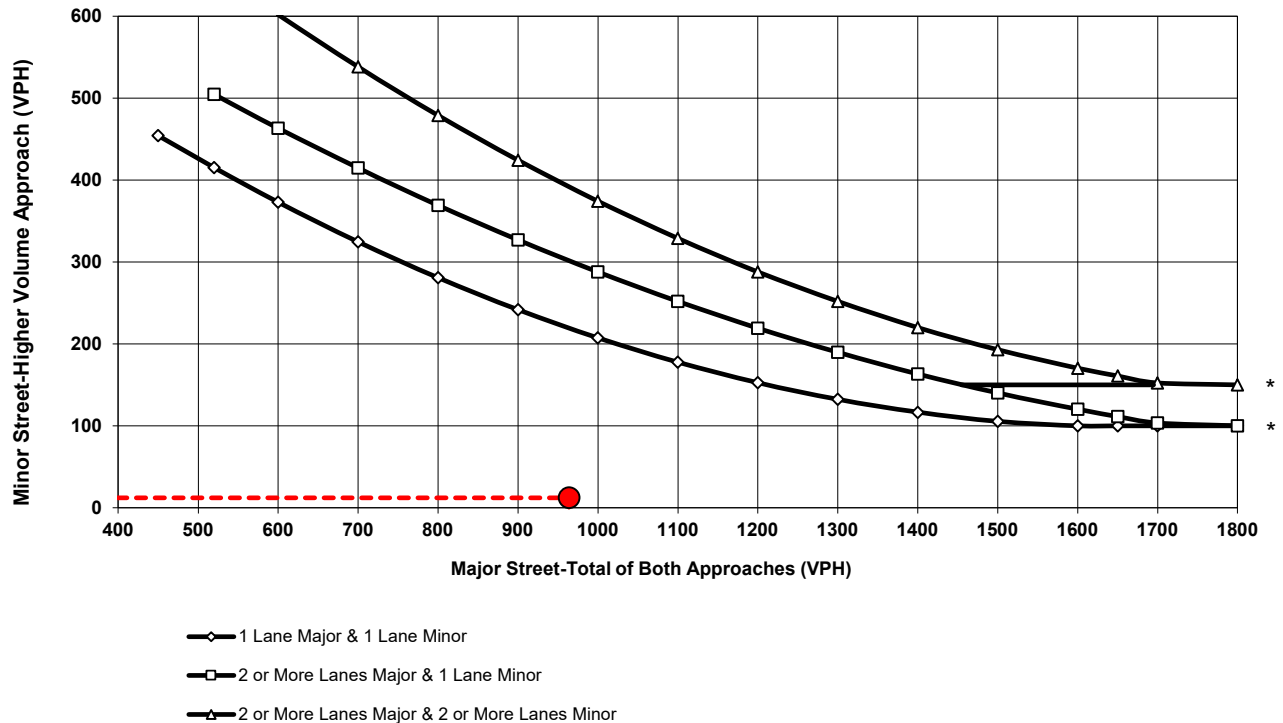
Higher Volume Approach (VPH): **12**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030WP Conditions
AM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

2030WP CONDITIONS PEAK HOUR VOLUME WARRANT URBAN CONDITIONS

Peak Hour: PM

Major Street: Ridgecrest Road

Minor Street: Driveway (S)

Total of Both Approaches (VPH): **1185**

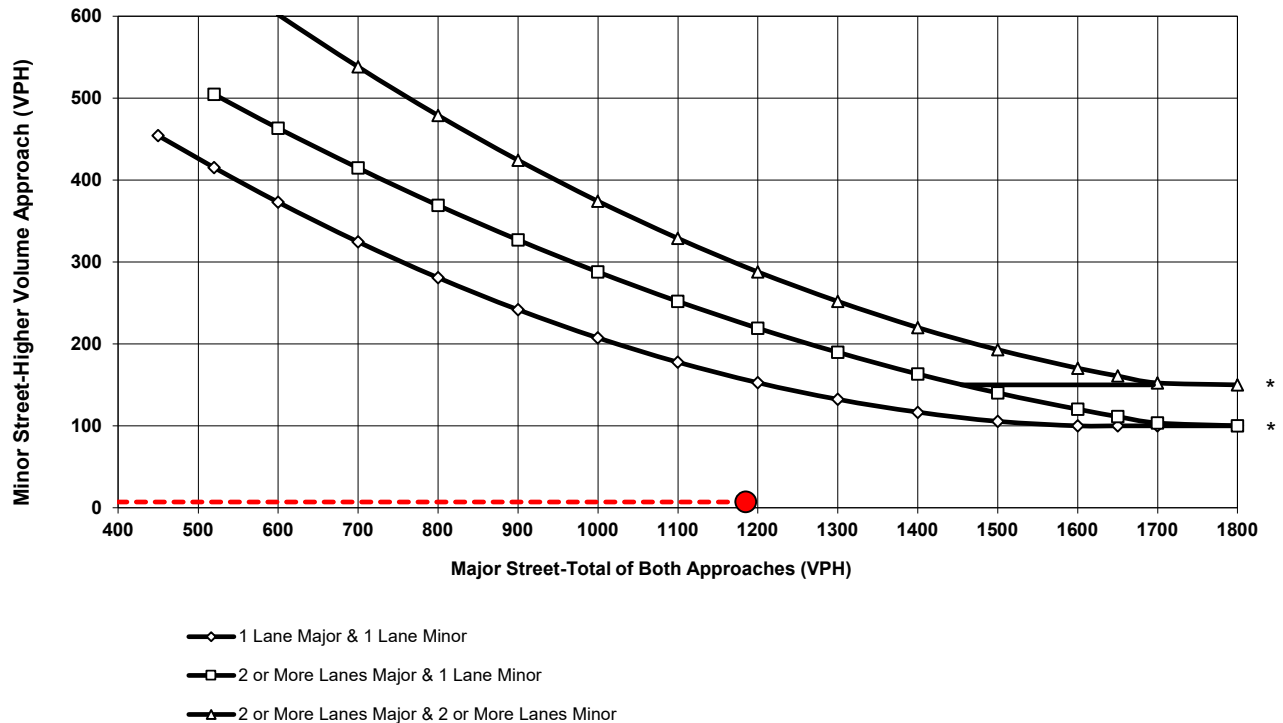
Higher Volume Approach (VPH): **7**

Number of Approach Lanes: **2**

Number of Approach Lanes: **1**

SIGNAL WARRANT NOT SATISFIED

Figure 4C-3. Peak Hour Warrant (Urban)



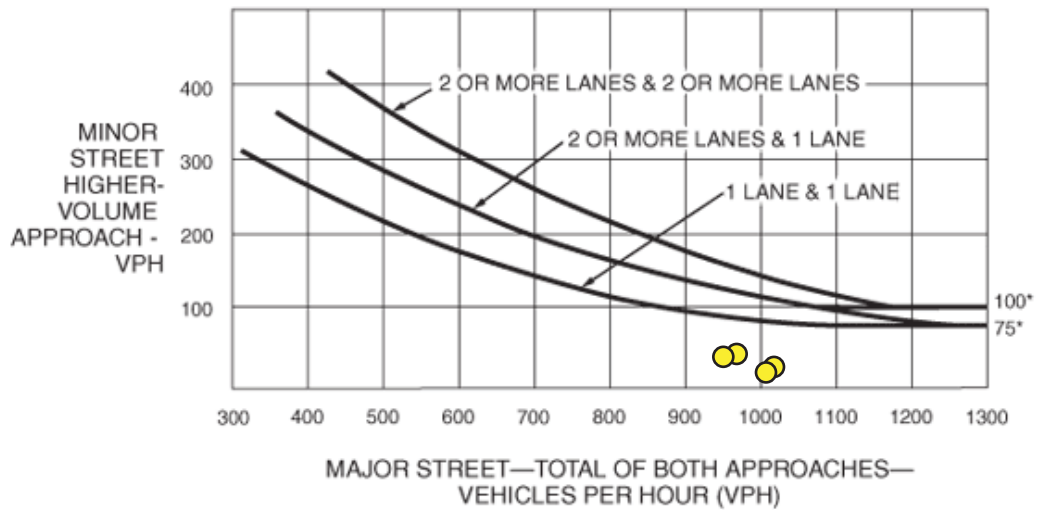
* Note:
150 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revisions 1, 2 and 3 (Mar 9, 2018)

**2030WP Conditions
PM Peak Hour Volume Warrant
Ridgecrest Road / Project Driveway (S)**

4-Hour Warrant Analysis - Ridgcrest Rd/Project Driveway (North)
Existing with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgcrest Road

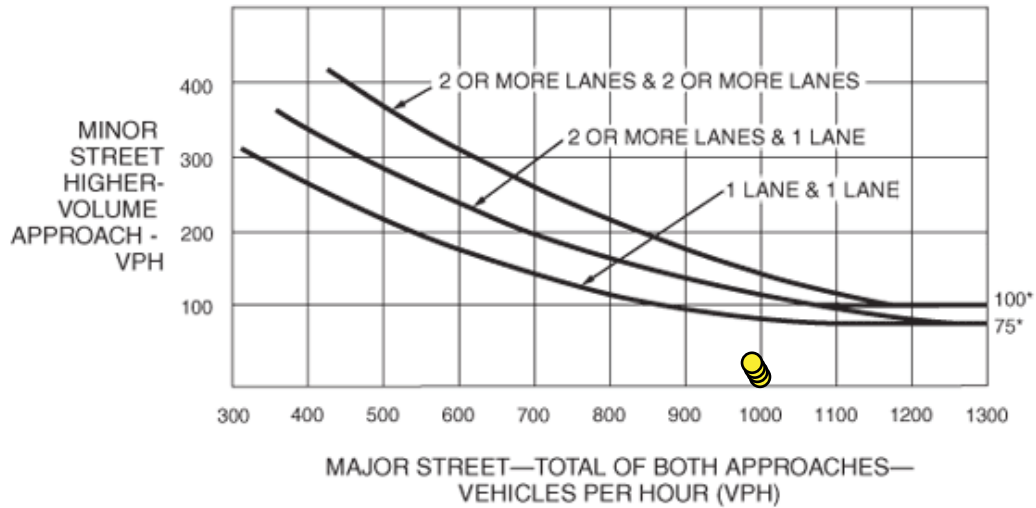
Minor Street: Driveway (North)

Number of Approach Lanes: **2**
 Total of Both Approaches (VPH): **956**
 Total of Both Approaches (VPH): **969**
 Total of Both Approaches (VPH): **1,011**
 Total of Both Approaches (VPH): **1,023**

Number of Approach Lanes: **1**
 Higher Volume Approach (VPH): **38**
 Higher Volume Approach (VPH): **44**
 Higher Volume Approach (VPH): **22**
 Higher Volume Approach (VPH): **30**

4-Hour Warrant Analysis - Ridgcrest Rd/Project Driveway (South)
Existing with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgcrest Road

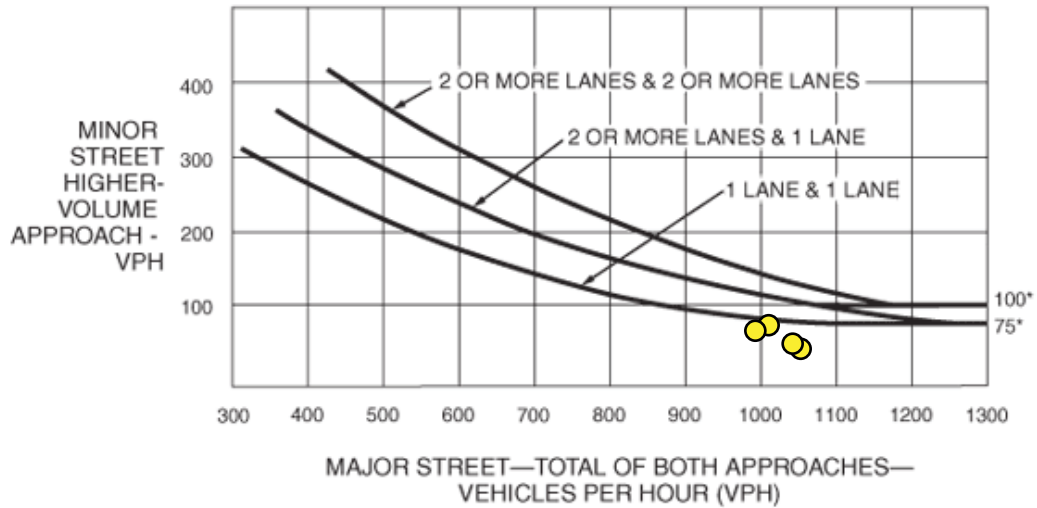
Minor Street: Driveway (South)

Number of Approach Lanes: **2**
 Total of Both Approaches (VPH): **972**
 Total of Both Approaches (VPH): **984**
 Total of Both Approaches (VPH): **990**
 Total of Both Approaches (VPH): **1,002**

Number of Approach Lanes: **1**
 Higher Volume Approach (VPH): **29**
 Higher Volume Approach (VPH): **33**
 Higher Volume Approach (VPH): **17**
 Higher Volume Approach (VPH): **22**

4-Hour Warrant Analysis - Ridgcrest Rd/Project Driveway (North)
Opening Year with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgcrest Road

Minor Street: Driveway (North)

Number of Approach Lanes: 2

Number of Approach Lanes: 1

Total of Both Approaches (VPH): 994

Higher Volume Approach (VPH): 71

Total of Both Approaches (VPH): 1,008

Higher Volume Approach (VPH): 82

Total of Both Approaches (VPH): 1,048

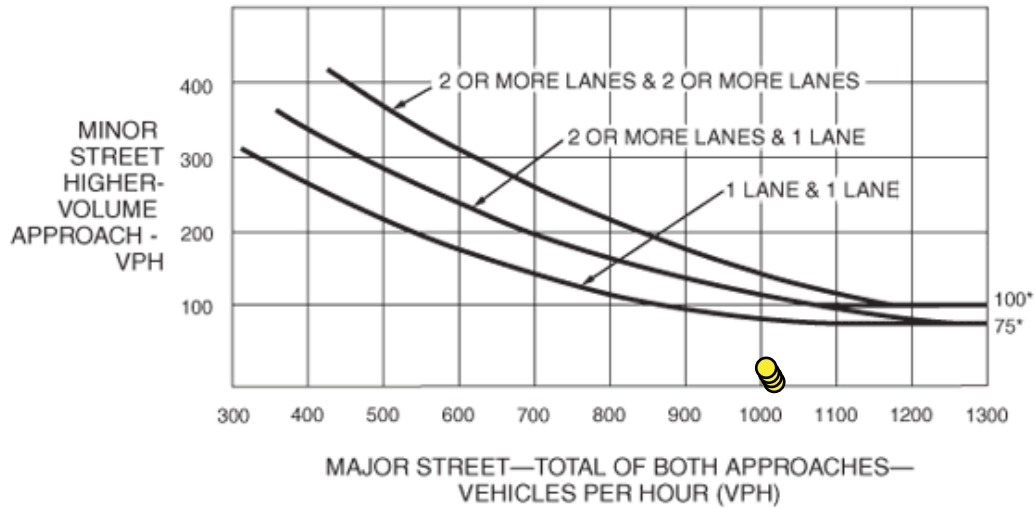
Higher Volume Approach (VPH): 42

Total of Both Approaches (VPH): 1,060

Higher Volume Approach (VPH): 56

4-Hour Warrant Analysis - Ridgcrest Rd/Project Driveway (South)
Opening Year with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgcrest Road

Minor Street: Driveway (South)

Number of Approach Lanes: 2

Number of Approach Lanes: 1

Total of Both Approaches (VPH): 1,011

Higher Volume Approach (VPH): 12

Total of Both Approaches (VPH): 1,024

Higher Volume Approach (VPH): 14

Total of Both Approaches (VPH): 1,030

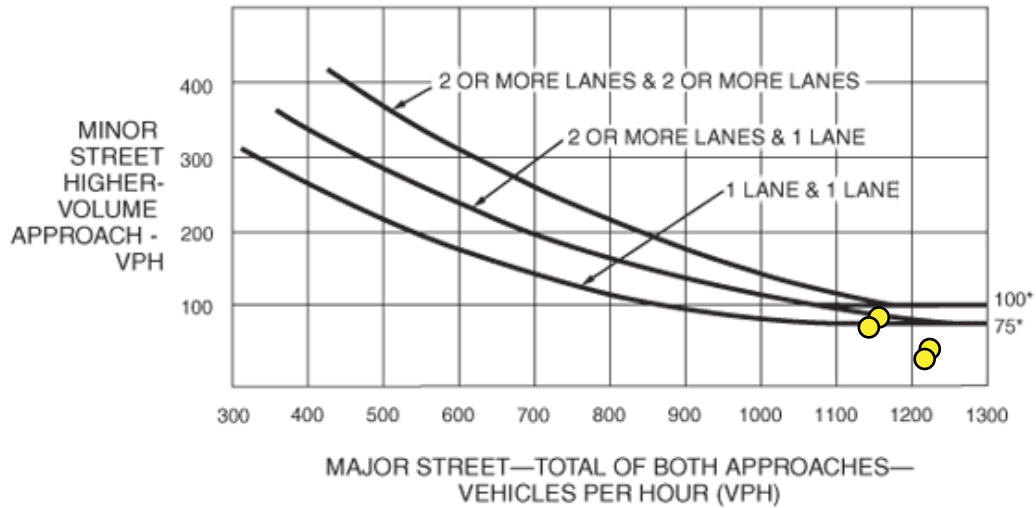
Higher Volume Approach (VPH): 7

Total of Both Approaches (VPH): 1,043

Higher Volume Approach (VPH): 10

4-Hour Warrant Analysis - Ridgcrest Rd/Project Driveway (North)
 Future Year with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgcrest Road

Minor Street: Driveway (North)

Number of Approach Lanes: 2

Number of Approach Lanes: 1

Total of Both Approaches (VPH): 1,114

Higher Volume Approach (VPH): 71

Total of Both Approaches (VPH): 1,128

Higher Volume Approach (VPH): 82

Total of Both Approaches (VPH): 1,214

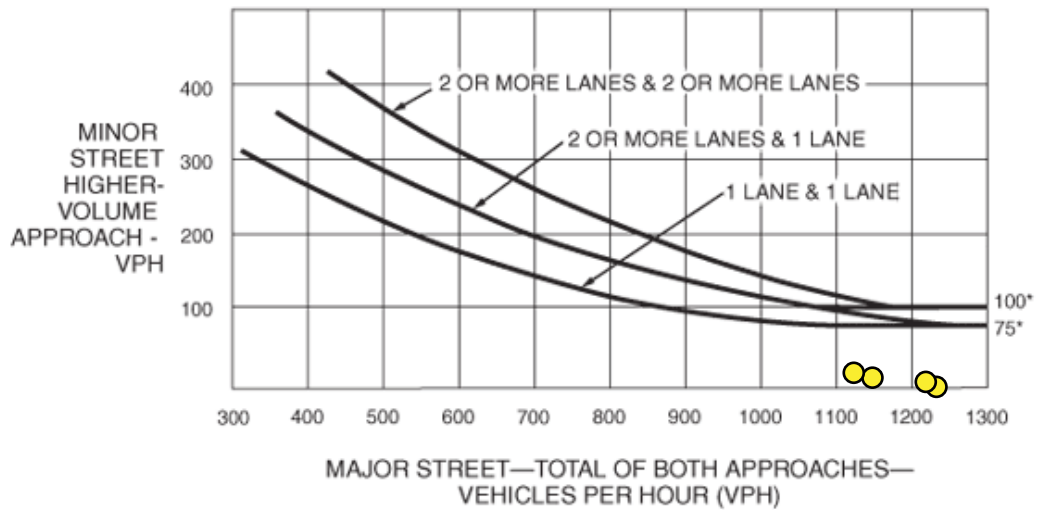
Higher Volume Approach (VPH): 42

Total of Both Approaches (VPH): 1,226

Higher Volume Approach (VPH): 56

4-Hour Warrant Analysis - Ridgecrest Rd/Project Driveway (South)
 Future Year with Project

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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 approach with one lane.

Major Street: Ridgecrest Road

Minor Street: Driveway (South)

Number of Approach Lanes: 2
 Total of Both Approaches (VPH): 1,138
 Total of Both Approaches (VPH): 1,153
 Total of Both Approaches (VPH): 1,217
 Total of Both Approaches (VPH): 1,231

Number of Approach Lanes: 1
 Higher Volume Approach (VPH): 12
 Higher Volume Approach (VPH): 14
 Higher Volume Approach (VPH): 7
 Higher Volume Approach (VPH): 10